1032

Y
4
Ag8/2
R88/43

GOVERNMENT
Storage

9444
Ag8/2
R88/43

SUCCESS STORIES IN RURAL HEALTH CARE DELIVERY

DOCUMENTS
JUL 28 1976
THE LIBRARY
KANSAS STATE UNIVERSITY

HEARING

BEFORE THE

SUBCOMMITTEE ON RURAL DEVELOPMENT

OF THE

COMMITTEE ON AGRICULTURE AND FORESTRY UNITED STATES SENATE

NINETY-FOURTH CONGRESS

SECOND SESSION

FEBRUARY 16, 1976

Printed for the use of the Senate Committee on Agriculture and Forestry

KSU LIBRARIES
A11900 448256

U.S. GOVERNMENT PRINTING OFFICE

70-560 WASHINGTON : 1976

AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

COMMITTEE ON AGRICULTURE AND FORESTRY

HERMAN E. TALMADGE, Georgia, *Chairman*

JAMES O. EASTLAND, Mississippi
GEORGE McGOVERN, South Dakota
JAMES B. ALLEN, Alabama
HUBERT H. HUMPHREY, Minnesota
WALTER D. HUDDLESTON, Kentucky
DICK CLARK, Iowa
RICHARD B. STONE, Florida
PATRICK J. LEAHY, Vermont

ROBERT DOLE, Kansas
MILTON R. YOUNG, North Dakota
CARL T. CURTIS, Nebraska
HENRY BELLMON, Oklahoma
JESSE HELMS, North Carolina

MICHAEL R. McLEOD, *General Counsel and Staff Director*

SUBCOMMITTEE ON RURAL DEVELOPMENT

DICK CLARK, Iowa, *Chairman*

HUBERT H. HUMPHREY, Minnesota
JAMES O. EASTLAND, Mississippi
JAMES B. ALLEN, Alabama
PATRICK J. LEAHY, Vermont

CARL T. CURTIS, Nebraska
ROBERT DOLE, Kansas
HENRY BELLMON, Oklahoma

EX OFFICIO MEMBER

HERMAN E. TALMADGE, Georgia

CONTENTS

Page

Opening statement of Hon. Patrick J. Leahy, a U.S. Senator from Vermont-- 1, 79

CHRONOLOGICAL LIST OF WITNESSES

RURAL HEALTH SYSTEMS IN VERMONT

Statement of—

Collier, Dr. Ted A., president, Addison County Health Council, Inc., Middlebury, Vt---- 4, 109
Davis, Elizabeth J., executive director, Visiting Nurse Association, Burlington, Vt---- 6, 296
Lantman, Dr. John C., Thomas Chittenden Health Center, Williston, Vt ---- 9, 124
Matthew, Dr. John D., Martha Michelson Health Center, Plainfield, Vt---- 11, 271
Laundon, M. H., president, Mountain Valley Health Center, South Londonderry, Vt---- 18, 101

MANPOWER PROBLEMS IN RURAL AMERICA

Brown, Janet P., School of Nursing, Burlington, Vt---- 30
Faris, Dr. Arthur S., Shaftsbury, Vt---- 33
Friedman, Dr. Edward E., University of Vermont, Essex Junction, Vt. ---- 37, 108
Lughinbuhl, Dr. William H., dean, College of Medicine, University of Vermont, Burlington, Vt---- 39, 121, 259
Thompson, Dr. Lloyd, Lyndonville, Vt---- 42

COMPONENTS OF A RURAL HEALTH SYSTEM

Coe, Henry, executive director, Vermont Hospital Association, Montpelier, Vt---- 52, 262
Fifield, Oliver R., president Blue Cross/Blue Shield, Concord, N.H-- 55, 112
Francisco, Edgar W., director, Regional Medical Program, Burlington, Vt---- 58
Newman, Howard N., president, Dartmouth-Hitchcock Medical Center, Hanover, N.H.---- 62, 115
Robbins, Dr. Anthony, commissioner, Vermont, Health Department, Burlington, Vt---- 63, 248
Robins, Patrick S., Burlington, Vt---- 68
Tufo, Dr. Henry M., Given Health Care Center, Burlington, Vt---- 69

CHAMPLAIN ISLANDS HEALTH CENTER—PRIMARY HEALTH CARE DELIVERED BY NURSE PRACTITIONERS

Abare, Barbara, president, Grand Isle County Health Council, Inc., Grand Isle, Vt---- 80
Davis, Elizabeth J., executive director, Visiting Nurse Association, Burlington, Vt---- 82
Heath, Susan, Burlington, Vt---- 84
Holmes, Dr. Frederick C., St. Albans, Vt---- 84, 292
Rubin, Dr. Alan S., University of Vermont, Burlington, Vt---- 87

Additional material— Page

Aiken, Dr. Robert B., M.D., Vermont Professional Standards Review Organization, Inc., Shelburne, Vt---- 268
Alden, Dr. Peter D., M.D., Aesculapius Medical Center, South Burlington, Vt---- 299
Auten, Dr. Hanford L., M.D., F.A.C.S., Claremont, N.H---- 304
Bailey, Linda R., Vermont Cancer Rehabilitation Project, Burlington, Vt---- 233
Batchelder, Mary, Lamoille Center, Morrisville, Vt., with attachments- 207
Blanchard, Weston L., chief, Medical Care Facilities, State of Vermont, Agency of Human Services, Department of Health, Burlington, Vt-- 131
Blankinship, Joan, nurse director, Caledonia Home Health Care Agency, Inc., St. Johnsbury, Vt., with attachments---- 275
Bont, Dr. Gene, M.D., Black River Medical Group, Black River Health Center, Cavendish, Vt---- 286
Brasure, Barbara A., administrator, Addison County Dental Clinic-Tooth Hollow, Inc., Bristol, Vt---- 230
Brooks, Dr. George, M.D., Vermont State Hospital, Waterbury, Vt--- 159
Brown, Joshua, patient, St. Johnsbury Regional Hospital, St. Johnsbury, Vt---- 138
Choquette, Louis L., North Clarendon, Vt---- 135
Cobb, Peter, Vermont Public Interest Research Group, Inc., Montpelier, Vt---- 152
Coffin, Dr. Roberta R., M.D., director, Medical Services Division, State of Vermont, Department of Health, Burlington, Vt---- 127
Condon, C. W., East Montpelier, Vt---- 271
Congdon, Dr. David R., M.D., president, American Academy of Family Physicians, State of Vermont, The Castleton Medical Center, Inc., Castleton, Vt---- 261
Davis, Thomas C., secretary, Agency of Human Services, State of Vermont---- 195
Dorsch, Ellen, co-director, The Green Mountain Health Center, Brattleboro, Vt---- 106
Egerton, Henry C., administrative director, Community Human Service Agency, Inc., Home Health Care Program, Gifford Memorial Hospital, Randolph, Vt---- 284
Emerson, Faith G., R.N., associate professor, Community Health Nursing, University of Vermont, Division of Health Sciences, School of Nursing, Burlington, Vt---- 115
Evans, Mrs. Lewis P., Champlain Valley Information Service, Burlington, Vt---- 203
Gadway, Dr. Ronald G., D.O., Medical Associates, Inc., Bethel, Vt--- 285
Gage, Dr. Terence F., M.D., Orleans, Vt---- 137
Gentry, Dr. Stokes, M.D., Vermont chapter chairman, American Academy of Pediatrics, Burlington, Vt---- 279
Gladstone-Strobel, Bari, D.I.A.L., administrator, Johnson, Vt---- 225
Gordon, Bosha, Vermont Women's Health Center, Burlington, Vt---- 195
Gresh, Bernard Sean, Ed. D., director, Continuing Education Recognition Program, Vermont State Nurses Association, Burlington, Vt--- 204
Handy, Joseph S., Commissioner, State of Vermont, Agency of Human Services, Department of Social and Rehabilitation Services, Montpelier, Vt., with attachments---- 128
Haugsrud, Katheryn N., Arlington Community Public Health Nursing Service, Inc., Arlington, Vt---- 160
Heroux, Robert E., director, Council on Aging for Southeastern Vermont, Brattleboro, Vt., with attachments---- 161
Hides, J. Churchill, associate director, The Vermont Lung Center, University of Vermont, Burlington, Vt---- 126
Hockert, Barbara, project director, Project Mobility: Freedom Wheels, Burlington, Vt., with attachments---- 307
Hughes, Dr. James R., M.D., Norwich, Vt---- 169
Hunn, Mrs. Hiram S., Hi Meadow, Plainfield, Vt---- 290
Hunziker, Dr. Robert J., M.D., University of Vermont, Department of Radiology, Burlington, Vt---- 157

Additional material—Continued

	Page
Jaggard, Dr. Robert S., M.D., Oelwein, Iowa, with attachments	233
Janney, Ann, R.N., executive director, Vermont State Nurses Association, Inc., Burlington, Vt., with attachments	300
Kellogg, Marion K., Stowe, Vt., with attachments	287
Laubach, Ruth, legislative chairman, Vermont Association for Mental Health, Inc., Montpelier, Vt	157
Long, Dr. John G., D.D.S., director, Dental Health Division, Vermont State Department of Health, Burlington, Vt., with attachments	138
MacNeil, Frank X., executive director, Franklin-N. Grand Isle, Mental Health Service, Inc., St. Albans, Vt., with attachment	280
Madison, Dr. James F., M.D., Timberlane Medical Center, South Burlington, Vt., with attachments	198
Mercer, Edwina B., R.N., The Johnson Health Clinic, Johnson, Vt	227
Miller, C. C., Morrisville, Vt	237
Milligan, Jean B., Ed. D., director, School of Nursing, University of Vermont, Burlington, Vt., with attachments	252
Narkewicz, Dr. Richard M., M.D., Pediatric Associates, South Burlington, Vt	109
Park, Dr. David R., M.D., Thomas Chittenden Health Center, Williston, Vt	305
Pomar, Dymitry, D.V.M., director, State Public Health Laboratory, Burlington, Vt	154
Ratcliff, Lydia, The Good Health Center, Chester, Vt., with attachments	237
Richwagen, John P., executive vice president, The Rutland Hospital, Inc., Rutland, Vt	136
Ring, Dr. B. Albert, M.D., University of Vermont, College of Medicine, Department of Radiology, Burlington, Vt	132
Scholz, Bernard W., Townshend, Vt	121
Sefert, Leanora M., Vermont Dental Care Program, Inc., Burlington, Vt., with attachments	189
Stickney, Joyce O., director, Public Health Nursing, Vermont State Department of Health, Burlington, Vt	269
Sutton, Donald R., dean of students, Saint Michael's College, Winooski, Vt	251
Vermont Department of Health—Emergency Medical Services in Vermont, with attachments	170
Vermont Epilepsy Association, Rutland, Vt., with attachments	264
Wagner, David, executive director, Planned Parenthood of Vermont, Burlington, Vt	250
Watson, Mary W., R.N., director, Central Vermont Home Health Agency, Barre, Vt	202
Williams, Veronica S., PHNS, Rutland, Vt	159
Witherell, Linden E., M.P.H., Department of Health, Burlington, Vt	306
Woolley, Frank K., executive director, Association of American Physicians and Surgeons, Inc., Oak Brook, Ill	231
Wright, Alice M., EFNEP, nutrition specialist, The Extension Service, University of Vermont, Burlington, Vt	298
Yates, Dr. Jerome W., M.D., associate professor of medicine and planning director, Vermont Regional Cancer Center, University of Vermont, Burlington, Vt	158
Young, Mrs. Karey, West Glover, Vt	279
"Back to the Boondocks," submitted by Ermont Lawrence	297
Background information on the problem oriented medical record (papers submitted by Dr. Lawrence L. Weed, University of Vermont Medical College)	310

SUCCESS STORIES IN RURAL HEALTH CARE DELIVERY

MONDAY, FEBRUARY 16, 1976

U.S. SENATE,
SUBCOMMITTEE ON RURAL DEVELOPMENT
OF THE COMMITTEE ON AGRICULTURE AND FORESTRY,
Burlington, Vt.

The subcommittee met pursuant to notice in the Rowell Building, Medical Center Hospital, Burlington, Vt., at 10:05 a.m., Hon. Patrick J. Leahy, presiding.

Present: Senator Leahy.

STATEMENT OF PATRICK J. LEAHY, A U.S. SENATOR FROM VERMONT

Senator LEAHY. Good morning. I want to welcome you all here to this rural health hearing conducted by the Rural Development Subcommittee of the Senate Committee on Agriculture and Forestry.

I'm Patrick Leahy and I am the junior Senator from the State of Vermont.

Senator Dick Clark, the chairman of the Subcommittee on Rural Development was scheduled to be here with us today. Senator Clark has run into a problem which has happened to an awful lot of people in Washington in the last 3 or 4 days. He has a very bad case of the flu. He is disappointed not only to miss these hearings as he worked with me and with others for quite a few weeks in setting them up, he's also disappointed in missing the skiing that he had planned for yesterday.

We have on our panel this morning Dr. Ted Collier from the Addison County Health Council, beside me; Betsy Davis from the Champlain Islands Health Center; Dr. John Lantman from the Thomas Chittenden Health Center in Williston; and Dr. John Matthew from the Martha Michelson Health Center in Plainfield. Mr. Laundon will be joining us by television from South Londonderry. We also have from the Senate Agriculture Committee Jim Giltmier who is sitting to my right, and we have Warren Oxford to his right. We have several other people who've come here for the hearings. Stu Hardy who is a member of the staff of Senator Robert Dole of Kansas, and Dave Harf who is on the staff of Senator Dick Clark and is here for the hearings. Paul Bruhn, who is my administrative assistant, also helped in setting these hearings up.

I think I should tell you a little about why we are doing this. The Senate Agriculture Committee has jurisdiction over a number of areas, but probably the most significant, in my mind, is rural development.

We go into all areas dealing with rural matters. Of course, the delivery of health services in a rural State is a significant matter, one that I think has been overlooked to a large extent in the past. Senator Clark and I want to get heavily in it. Senator Dole from Kansas, the ranking Republican member of the Senate Agriculture Committee is also very interested and has an observer for these hearings. Senator Ted Kennedy, who has a health subcommittee, also is interested and everything that we do here will be coordinated with his subcommittee.

Vermont is one of the most rural of States. It is an ideal place to have such hearings. We have had enormous help and cooperation from people throughout the State in providing testimony and in helping to set this up.

We are doing something that has never been done by a Senate committee before. We are using the Interact closed circuit television system because it's going to help us reach a number of parts of the State that we wouldn't be able to otherwise.

Senator Clark, if he had been here, would have told you our intention is to take a close look at existing rural health care delivery systems. We want to examine the extent to which these innovative systems are meeting the needs of rural residents. We want to decide whether they can be suited for other rural communities in our Nation. We want to determine the proper Federal role in this matter.

Although the focus of our discussions today and this evening will be on the cures for the ailment, I think we should briefly describe this ailment. Numerous congressional hearings, including one held jointly last year by the Rural Development and the Health Subcommittees, have documented in great detail the inadequacy of health care in rural areas. I believe we can agree on some general assumptions that summarize these findings of those hearings that we held last fall in Washington.

First: A larger proportion of rural citizens than urban citizens have acute and chronic illnesses. This is largely due to the high concentration in rural areas of poor and elderly people, and those who have great health needs.

Second: Because almost half of this country's poor people live in rural communities, many rural residents are not able to pay for the services they need. This problem is aggravated by the fact that rural Americans tend to have little insurance protection.

Third: There is a serious geographic maldistribution of health personnel and facilities in rural areas. Certainly quality health care requires the availability of a wide variety of health care personnel and the resources to support them.

It is this latter point on which we all are concentrating our efforts today. This uneven distribution of health care must be solved before a national health insurance program can have any impact on the quality and level of health services in rural areas.

Our Nation has spent millions of dollars in the past few years to attempt to encourage health professionals to practice in medically underserviced areas. However, these efforts have not been very successful, and therefore, health personnel are still clustered in urban and suburban areas. Unless there are new Federal initiatives that are based on our experiences in States like Vermont, the geographic maldistribution will continue.

I would like to add that our interest is in examination of various rural health systems which are already in place in the State, and with that information, with your thoughts about what steps Congress can take to improve rural health care; we can begin to resolve this problem which has affected not only Vermonters, of course, but millions who live in rural areas all across the country.

Our format is substantially different from the usual congressional hearing. Quite frankly, what we are doing here today is an experiment. Last December we invited individuals and groups from all over Vermont and New Hampshire to submit written testimony in preparation for our hearing today. More than 80 responded. All of that material has been extremely helpful. All of it has become a part of the permanent record of this hearing.

Today we will have three panel discussions with a number of people with a great deal of expertise. They represent a broad spectrum of thought on rural health care. During each panel session we want to obtain from those of you in the audience here in Burlington and around the State who are connected through Interact your suggestions or questions. It is our hope that this workshop atmosphere will allow us to discuss potential solutions more fully and also to help Senator Clark and myself, Senator Dole, Senator Kennedy, and others find appropriate legislative answers.

The use of the Interact television system enables us to reach most parts of the State. As I said, it's the first time that a congressional committee has used such a system. While we believe this system and the hearing format will help us get as complete a picture of rural health in Vermont as possible in a 1-day session, we would appreciate your thoughts, both verbal and written, on whether it has worked. And I would also at the end of this hearing keep the record open so that anybody who wants to add further thoughts or criticisms or suggestions can do so so that they can be made part of the permanent record.

We are not going to be able to return to Washington and immediately solve all the rural health problems that will be discussed here today. The solutions we hope to find today must necessarily be coordinated with efforts to resolve other problems including the high cost of good health care and rapidly escalating malpractice insurance rates.

We are going to begin the legislative process and we are going to begin it here today, and we will start with our panel discussion with representatives of several groups involved with the delivery of primary health care in rural areas. Our attention is going to focus on whether any or all of these systems could be used as models for rural health care delivery elsewhere in the country and what we in Congress can do to help.

And I'll start on my left with Dr. Ted Collier of the Addison County Health Council. I am going to ask each of the panelists and future panelists to keep their statements as short as they can. And then to get some kind of interaction between you and between all of you, I'd like to hear from each one of you.

Doctor, if you'd like to start.

STATEMENT OF DR. TED A. COLLIER, PRESIDENT, ADDISON COUNTY HEALTH COUNCIL, INC., MIDDLEBURY, VT.

Dr. COLLIER. I'm going to immediately disclaim the Senator's remarks, at least about myself, that I am an expert in rural health care delivery. I am Dr. Ted Collier. I am involved and have been for the last 15 years, in the private, independent practice of general, adult medicine in Middlebury, and I am currently the president of the Addison County Health Council, an incorporated group which has been in existence now for approximately 2 years and which was initiated and created to fill a need perceived by the health care professionals in Addison County. We have an overhead to orient those of you who do not know Addison County as to why we felt we had a unique setting to experiment with a voluntary community health information system. Addison County is situated on the lake, natural boundary on east and west, with Middlebury, it's shire town, approximately midway between a fairly large community general hospital in Rutland and medical center complex in Burlington. We had, at the time of the initiation of the council, each of the basic agencies and institutions, I think, that are felt essential to deliver an adequate spectrum of health care services—a 50-bed general hospital at Porter Hospital, a skilled-care nursing facility, Helen Porter Nursing Home, associated with the hospital, a community mental health organization, and an active home health care-visiting nurse organization. We are lucky to have a regional office of the Vermont Department of Public Health Nursing, and three very adequate and well-trained, enthusiastic, volunteer ambulance and rescue squads. So we had to begin with—be jealous, all of you—the basic elements for a community health care delivery system. The need—oh, and also, a distribution of practitioners, and this is the current distribution on the right hand side of the screen—so that we really felt ourselves quite lucky in both the service agencies, organizations, and personnel that we had. So then what's the need? Well, the perceived need was to see that this group worked together toward common goals, and most importantly, shared most efficiently the care of any single given patient so that any one of our people progressed through this system in an appropriate and effective manner. The organization that we designed to attempt to carry this out is briefly represented above. Our membership now totals about 100 dues-paying, card-carrying members who meet annually, elect eight members from among themselves to our board of trustees. Then, four each are appointed by the governing bodies of each of the three major institutions and agencies, one of which must be the executive officer of that agency or institution; a second, the medical director of that agency. Our office is located in Porter Hospital. It's staffed by essentially two full-time people, a director, and assistant director, and we have just recently added a person, shared with the hospital, our community health care review coordinator. This is the staff.

The advisory panel system is our answer to the old committee system and is one of the ways we draw in members of the lay community. Our basic goal and perceived need was to improve the way the information concerning individual patients was passed among us. So,

out of that, we with some effort attempted to standardize certain basic parts of the personal health record so that we could talk to each other in a clear, consistent, and progressive way. We in fact, miniaturized the basic elements of this common format and put them in a pocket packet which our patients can carry with them. Those elements will be listed on a subsequent slide and are demonstrated to my left on the table.

The other areas of involvement have been the development of the medical library and information services and the details of that are listed. Work in the area of professional health information and education, in addition to the library, including a student work system program in which we have freed up funds the last two summers to invite medical and nursing students to literally swap their energies with us for a chance to work in a relatively integrated rural system. We put them to work at specific projects during their 10 weeks with us in the summer. The public health and information activities are really just beginning and is a tremendous field, but one in which we are trying to correlate our informational activities. And, last, it was an initial dream of ours, that is, to be able to look analytically at the health needs and the manner in which we were providing them through an overseeing agency. It is this person whom we have just taken onboard who will be developing a communitywide medical care review program. She's currently orienting herself and accomplishing the individual reviews required of the institutions and agencies as they exist.

Now, just briefly about the pocket health system itself. It has five basic elements. One is an ID—a plastic ID card which is now used in the standard way to identify paper in various agencies and institutions. The patient information data sheet is simply the standard registration data that all institutions collect and which is collected over and over and over again. The idea here was to collect it once in a standard manner that met the requirements of all the registering providers in the county and saving the patient having to regurgitate up this material over and over again. The permanent problem list is the key communicative element of Dr. Weed's problem oriented medical record system, and we have found this particular element extremely valuable both in communication among ourselves and in talking with patients, and they, indeed, carry a photo-reduced copy of this with them at all times. And last, is the personal immunization record which I will use subsequently to model the system. Then we very carefully designed the size and so forth so it was compatible with other elements that we tend to carry scattered in our pockets already. The Vermont Heart Association identification card which is directed specifically to heart patients is compatible and contains a miniaturized electrocardiogram, for example. Most of the health insurance pocket cards are compatible with the system as is the medic alert pocket card and most of the organ donor cards that we know of in existence.

In addition, we have added a couple twists of our own, one of which is a health maintenance schedule to this point developed only for the pediatric years both as a guide to docs and the patients and a recommended minimum maintenance schedule for our kids.

Then I just want to model the system briefly.

Senator LEAHY. Incidentally, can everybody hear in the back? Would you like us to speak up a little louder? I think I see some people would like us to speak a little louder.

Dr. COLLIER. This is just a schematic representation of how one element of the pocket health packet works. There is a central file in the Addison County Health Council office which contains material sent to us in the personal health history. This schematic representation demonstrates the four sites of immunization within the county: physicians offices; hospital emergency room; preschool clinics run by the public health nurses; and our school health programs directed by a variety of school nurses. They have standardized both their own recording system, a reporting system, and then a pocket packet. In this case the circle demonstrating the manner in which we expect our patients with their pocket packet to complete the communication cycle.

Senator LEAHY. Thank you very much, doctor.

I'm going to hold my questions until the end of the panel and turn to Betsy Davis.

Betsy, it's all yours.

STATEMENT OF ELIZABETH J. DAVIS, EXECUTIVE DIRECTOR, VISITING NURSE ASSOCIATION, BURLINGTON, VT.

Ms. DAVIS. I very much appreciate the opportunity to be here and share with you our experience, briefly, I hope, in Grand Isle County and the development of the Champlain Islands Health Center. I am the executive director of the Visiting Nurse Association, and the Champlain Islands Health Center is one of the aspects of the VNA program that we offer in Chittenden and Grand Isle County.

I thought first I would like to just tell you briefly a little bit about Grand Isle County for those of you who are not familiar with the county. It has a population of 3,750 people; although in the summer it increases to about 12,000, it being a favorite summer tourist area. It is a series of islands 40 miles in length extending all the way to the Canadian border. The population, characteristics of the population and the economics of the area probably typify many rural areas in Vermont, such as: 58 percent of the population of Grand Isle County earns less 200 percent of the poverty level; the most recent unemployment rate was 17 percent of the work force—probably that was increased after the ferry closed in January—28 percent of the population presently utilizing the health center have no form of health insurance, and only 15 percent are medicaid eligible, and so forth and so on. I think just that information in itself tells you something about the difficulty of providing a full range of health services for a rural population.

Senator LEAHY. What was the percentage without health insurance at all?

Ms. DAVIS. Twenty-eight percent without any form of health insurance.

The health center was established in May 1974 as a result of efforts of the Grand Isle County Health Council—and I can't stress that volunteer effort enough—the Visiting Nurse Association, the State health department, University Health Center, and a St. Albans

pediatrician as well as considerable support from a number of other agencies and groups. The major goal of the health center is to establish a coordinated and integrated 24-hour system of health care that is available, accessible, and accountable to the people of Grand Isle County. Obviously, I could spend an hour discussing each one of those qualifying adjectives.

I'd just like to say, briefly, that we feel the most important features of the health center, are: (1) consumer involvement and governing responsibilities; (2) utilization of nurse practitioners as primary care givers with a backup physician available through telephone consultation and periodic onsite visits; (3) the linkages to the rest of the health care system; (4) its cost effectiveness; (5) services focus on prevention, health education, consumer self-help and responsibilities; and, (6) accountability.

And now to some of the specific questions that we were asked to respond to in terms of what was happening before, why was the health center established in the first place, and some of the problems we faced.

The health center was established in response to a specific community request. The Visiting Nurse Association had had 2 years experience with a mobile unit pediatric screening and educational service. The unit traveled from town to town once a year seeing anywhere from 50 percent to 90 percent of the preschool population in each town in Grand Isle County. Community volunteers who assisted in the organization and implementation of the services again were key in providing information and public relations. As a result of that experience, acceptance of the nurse practitioner concept was clear. The people of the county then asked if there was some way to keep that nurse practitioner year round in the county on a daily basis. We felt from our experience that that request was well justified. For example, 33 percent of the children seen on the mobile unit could name no source of preventive health care. Another 45 percent had irregular patterns of preventive health care. Adults when asked where they received care would mention three or four physicians depending on who was available. It was clear, therefore, that whatever the reasons were, there were significant barriers that prevented families from entering and staying in the health care system.

Critical to the establishment of the health center is the belief that a certain defined level of health care should be community based and located out where people live. One solution that we often hear to rural health problems is the creation of a transportation system bringing people to a central facility. We believe that this is self-defeating if we really believe in community and consumer responsibility and involvement, not to mention the additional time lost and child care problems and so forth even with the best of transportation systems.

As a result of this belief, the efforts in the first 1½ years have consisted of: (1) the defining of responsibilities of the various parties involved; and (2) defining those services than can be provided considering cost effectiveness and quality. Principles of practice were designed and approved by all parties involved. The Grand Isle County Health Council now has a responsibility for program and services planning, budget and contract approval, evaluation and other policy determination. The health providers involved support this local re-

sponsibility believing that we must be accountable to the people we are trying to serve. This increased involvement, hopefully, will also lead to increased responsibility, greater self-direction, and, hopefully, more demand for a system, and I underline system, of health care to which people are entitled.

Also central to this concept is full knowledge, understanding, and participation in health care by the patient. Patient education and the problem oriented record in the patient's possession are practiced at the health center.

The definition of the services provided at the health center has been an evolving process. The pediatric services are the ones most clearly defined with adult services still to be further developed. The intent is not to have this a fully equipped, total self-supporting, self-efficient primary care center. We believe the population base and the economics of the area prohibit that. Instead, the intent is to provide an entry point to a total, audited system of care. A data base screening exam and protocols for acute illness were defined and implemented. Approximately 20 percent of the 2,200 visits in the first year were for preventive services. The remainder were a mix of acute care and chronic illness care; 98 percent of the problems presented by children and 93 percent of the acute illness problems presented by adults were treated at the health center by the nurse practitioner either through protocol or telephone consultation with physicians. The remainder were triaged to another point in the health system and followup was an important ingredient to that triage.

In the first 1½ years over 900 people came to the health center, and 560 are being seen on a regular basis.

The most critical problem facing us is a political-financial one as might be expected. Current Federal and State regulations require a physician actually located onsite at all times directly supervising the care given by a nurse practitioner in order to collect third party reimbursement through medicare, medicaid, and most private insurance. If this continues then the nurse practitioner as an extension of the health care system in rural areas is not viable. Yet we feel we have been able to create a quality service that is acceptable, accessible, accountable, and cost effective. There is resistance to the development of this model that raises important medical-legal issues as the reasons; such as the Nurse Practice Act, the Medical Practice Act, the financial structure of the whole health care system, and so on, and so forth. Yet we do believe that these can be changed if we are really concerned about getting health care out to people, but we note change is painful but necessary if we are going to accomplish that goal. And, importantly, we do believe that it is a system of care that is necessary, that has standards and rules by which all people practice no matter who is giving that care, that must be extended out to the rural areas.

Thank you very much.

Senator LEAHY. Thank you, Betsy.

I would point out, incidentally, to be noted for the record, something that all of us know. When you talk about the problems in Grand Isle and the problems you see up there—this is an area ranging anywhere from 10 miles to probably 30 miles from Burlington and from the medical center here.

Ms. DAVIS. Sixty miles when you come from Alburg.

Senator LEAHY. When you come from Alburg it's 60 miles, but you have that range. On the map it looks like a relatively short distance and for the record we should realize some significant social differences and changes are far greater than the geographical distances.

The next witness is Dr. John Lantman of the Thomas Chittenden Health Center in Williston, also a man that I have known for a number of years and with whom I have worked in the past when I was a State official.

STATEMENT OF DR. JOHN C. LANTMAN, THOMAS CHITTENDEN HEALTH CENTER, WILLISTON, VT.

Dr. LANTMAN. Thank you, Senator Leahy.

I have in testimony submitted to the committee described what I believe is a health delivery system. This system provides care to the people living primarily in the eastern portion of Chittenden County.

I think that for purposes of my discussion this morning I will just describe briefly the situation as it existed 22 years ago when I became involved in that area and, perhaps, point out some of the reasons why change did occur, why change had to occur in the system that delivers that care.

Twenty-two years ago when I went to Williston, a small farming town at that time, the care in that area, the health care in that area was provided as was the case in most of Vermont and probably the country by solo practitioners. House calls were a common phenomenon. Patients who did not get to the physician's office and when the physician could not get to their home might go to the hospital emergency room, but by and large, the hospital emergency room was not used as it is today. When I went to this town 22 years ago there had been no physician in the town for 20 or 25 years. In the town immediately east of Williston, in the town of Richmond, there were two practicing physicians at that time. And in the town of Waterbury I think there were perhaps two or three physicians. There were physicians in Chittenden County north of Williston and south of Williston.

Over the next few years things occurred in that area that were not dissimilar to what was occurring in other parts of the State and the country as regards health care delivery. One of the physicians in Richmond who was an elderly man passed away and ceased to practice. The other physician in that town left the town. In the town of Waterbury which was further to the east—and that town had had five physicians just prior to my going into practice—that town was served by only one physician who, at the time, was somewhat ill and often not available.

What we see is a rather large rural area whose means of obtaining health care was rapidly dwindling. What did this mean to the system that was left, that existed?

The physicians remaining were certainly overworked, I'm sure, and I can say this because I was one of them. I'm sure the quality of care suffered. I'm sure that there were patients who needed care, who did not get it. Accessibility was rather poor. What were the solutions as far as the physician was concerned? Well, he might have

picked up and left. He might have continued providing a somewhat second grade type of care, or, perhaps there was another solution.

Approximately 8 years ago an attempt was made to develop another solution to providing health care in a rural setting. The system that I described I feel is not the only system. It certainly has its shortcomings. I think Dr. Matthew is going to describe a system that in many ways I envy.

At any rate, this was the system that developed. We were able to interest three other physicians just out of training to help develop a health care center. This center is located in Williston. This center has provided the usual primary care services. Over the years the center has grown to include psychiatric and dental services. A close relationship has been developed with the Visiting Nurse Association, the home health agency in our area. I think the system is viable, is providing health care services to a rural area.

I'd just like to back up a bit, if I could, and point out some of the, perhaps, some of the reasons that this change occurred in the manner of health care delivery in this one rural area. First of all, I think there was a change in the attitude of the public concerning health care. I think the public began to demand more of the system. They wanted 24-hour-a-day, 7-day-a-week coverage, particularly for emergency situations. The old system hadn't been able to provide this. I think things were happening to the concept of primary care. Primary care was more than being taken care of if you had a sore throat or a pain in your stomach. Primary care began to include comprehensive care. It began to include preventive care. It became a much different type of health care than we had known 25 years previously. I think as far as the professionals involved in providing this care changes were occurring. It was obvious, at least in this area, that the solo practitioner method of providing health care was really not viable. I think that this is true countrywide. And I would like to state at this point that I think that the sole practitioner model is not viable. It is, it's dying or it's dead. I think the alternative does involve some type of group approach to health care delivery. I think the group approach involves not only physicians, it involves other health professionals, and you will hear more about that this afternoon.

I think this new concept of care involves more than just the professional patient relationship. It involves other services such as the laboratory services. I almost hate to mention that, Senator Leahy, after seeing 60 Minutes last night, but it does involve laboratory services. It involves X-ray services. It involves an ongoing relationship between the agencies that provide care in the community such as the home health agency and the health center. Because of these additional requirements of the system it often involves a physical plant far different from the office located in a physician's home. And I think you all realize that when we get involved with building a new medical plant this involves a great deal of expenditure.

Well, this is as much as I want to say at this point regarding a changing system. I think that our testimony does describe in a bit more detail one model that is operating in Vermont. I think it's reasonably healthy. I think its longevity is probably good, and hope-

fully, this will demonstrate to others one method of approach.

I would like to just in concluding my remarks point out that with these increased expectations of the health delivery system, and I'm talking now about the ambulatory system primarily. And with the increased sophistication of these systems we are talking about a system that is somewhat more expensive to create, and with the increased expense we must be able to assure that that system, if it is developed is viable financially as well as functionally. And I think this leads us to the point that if we are going to make expenditures of this amount, expenditures not only of dollars but of people resources we probably do come to the point of some type of health planning.

I think in our discussion later this morning we might get involved in this concept, but I think it is essential that we begin to think in terms of how we plan in an orderly way for the development of systems that provide the services that are needed.

And, just in concluding, Senator, in my initial testimony I did say that I would like to compliment your committee on it's willingness to examine the health delivery system as it currently exists. Contrary to what one so often hears. I believe there is much about the present system which has merit. So often in health planning we are misled by our idealistic dreams of the impossible rather than dealing with the art of the possible.

Senator LEAHY. Thank you very much, and I can assure you, Doctor, that I have not been in Washington long enough to lose respect for things that work. Dr. Lantman's testimony, as the testimony of all of the others, his previously submitted testimony will be printed in full in the record. I just thought I'd note for the record at this point that the Thomas Chittenden Health Center has approximately 12,000 active patient files and see between 500 and 600 patients a week.

Before we go to our next witness we found what did happen with Mr. Laundon in South Londonderry. Apparently there has been lightning damage to one of the transmitters and he is going to a different center.

We will turn to Dr. John Matthew from the Martha Michelson Health Center in Plainfield, and we also have testimony that has been submitted by Dr. Matthew and John Clerkin which is part of the record.

It's all yours, Doctor.

STATEMENT OF DR. JOHN D. MATTHEW, MARTHA MICHELSON HEALTH CENTER, PLAINFIELD, VT.

Dr. MATTHEW. I came to Plainfield 20 years after John Lantman came to Williston.

For the last 2 years in six towns east of Montpelier we have been devising and beginning to develop a care system that we hope will address both the needs of the people who might come as patients and the demands of the persons who might be recruited as physicians.

The problems in our area are typical of rural Vermont and rural America, I might briefly describe the situation before I came to this area: This is a six-town area east of Montpelier consisting of Cabot, Calais, East Montpelier, Marshfield, Plainfield, and Woodbury, an

area of about 250 square miles served by two paved highways, and about 250 miles of unpaved back dirt roads. The people of the area, before my coming, were served by going into Barre and Montpelier, a distance ranging from 10 to 30 or 40 miles, not counting back road time, to take care from an inappropriately used emergency room or from whichever of the practitioners in Barre and Montpelier was available. There was one part-time practice in one of our towns, an osteopathic physician who practiced part time and did not have privileges in a nearby hospital.

If I could quickly run through the sorts of problems that a physician confronts when he considers going into rural care, as I did a few years ago. I was faced with the prospect of:

First: Impossible on-call demands.

Second: Commitment to a community that might accept me as its doctor and then have me find I couldn't handle the practice—in terms of demands.

Third: Big distances in this rural area.

Fourth: The requirement that there be a population base large enough to support, hopefully, more than one physician—which eliminated the possibility of locating in one small town and serving only one small town.

Fifth: I would be in need of numerous ancillary services—a laboratory, dispensary, or pharmacy, and X-ray facilities to mention a few.

Sixth: I faced the possibility of a large capital outlay to organize a practice and get a building and so forth.

Seventh: I felt that I would need consultation with experts in other fields and there would be none in the rural area.

Eighth: I very much needed continuing education and knew I would feel isolated from a medical center with no professional contact if I were by myself.

Ninth: I very much wanted to practice in a hospital, but rural areas are usually located distant from a hospital; and

Tenth: I knew very little about management as is the case with most physicians.

With these needs of the people and problems for rural physicians in mind, we have been developing a system which we hope will be a model for application in other rural areas.

We planned for about a year organizing a nonprofit community corporation. In the summer of 1974 an organization—which was stuck with the name Northeast Washington County Community Health, Inc.—made up of community persons originally operating as an ad hoc group, incorporated as a nonprofit organization and began to work out its plans for taking over the operation of the community's health resources in all regards and to organize a health center for the area. We have a board that includes two representatives from each of six towns.

In March 1975, at the town meetings of the six towns which comprise our primary catchment area, the six towns voted to participate in our scheme. Four of the towns elected, and two of them appointed board members for that year. This year in March there will be elections in each of the towns for board members with two members appointed by the adjacent largest industry in our area, a small col-

lege which has students that require care, and two positions which are open for the board to fill as it sees fit.

This past year a representative from the home health nursing agency in our area, and one from Vermont Dental Care served as our additional board members. We have been operating with this new board for less than a year now and have been open to the public for approximately 1 year.

What we have developed so far is an operating community corporation governed by consumers. We have pulled together several towns which gives us a population base which can support more than one practitioner. The community has leased a facility, the best they could find, a former administrator's home which is owned by the college but on a paved road adjacent to these communities, not actually within the campus. One of the big problems in a rural area is to find a suitable facility to house a health practice.

We set up an inhouse physicians assistant training program, and have working for us a graduate of the family nurse practitioner program at the University of Vermont, a graduate of Medex New England at Dartmouth, and a number of inhouse trained physician's assistant trainees. You might know that Vermont has a unique law that allows physicians to set up their own inhouse physicians assistant training which is, in fact, quite a useful law.

We set up a small laboratory, and with all respect to CBS's "60 Minutes" we have our own lab-tec.

Senator LEAHY. I was in an airplane last night during "60 Minutes." I'm not sure just what you're talking about. I assume they were not flattering.

Dr. MATTHEW. I think the problem is lack of quality control in small laboratories.

We had our lab-tec trainee funded under CETA. She is now taking classes at the university part time and has become quite a good laboratory technician. We also used CETA funds to take on people whom we have trained; one as a Medex and one physician's assistant and some clerical persons. In this way we have provided jobs in the area as well as gotten very good trained personnel by using the CETA program.

There is little sense in saving people a trip to the city to see a doctor if they then have to go into town to the pharmacy. We have organized a dispensary, which under Vermont law can only serve prescriptions that are from the physicians working in the facility. It is therefore not a public pharmacy, but rather a dispensary.

We have a nonphysician manager. He's a former town manager so he has management concepts and works with my partner and myself supplying medical concepts. He came on board just a few months ago and is now handling financial and community affairs, things of that order.

We have recently opened an evening clinic with the addition of Marilyn Frizzell, who is a new physician at the facility. This allows use of the clinic during hours which are not generally served by physicians in the area, providing clinic time for people who take care of kids or work during the day; and utilizing our facility, which otherwise would be fallow all night. So we now have 12 hours

a day of office hours including an evening facility until 9 o'clock at night.

This Wednesday we have our first dental patient coming in to a dental facility, which is equipped with equipment provided by the State of Vermont. We have recruited a dentist, who has just recently joined our staff.

We have an extensive teaching program in the clinic for patients when they come in for care, and there are a series of classes. We wrote a contract with the college to take care of their students and provide teaching. Classes are open to community college students and community members as well as to the Goddard College students. We provide classes in pregnancy and childbirth, human reproduction, human form and function—which is anatomy and physiology—and basic health care, which is designed to teach the individual to be an educated patient. We have a specialized contraceptive clinic and have just begun having a prenatal clinic.

Additionally, we have an outreach coordinator, whose job is to do community education and social work. When planning the center, we found that there was no effective social work for rural persons. They had to go into a large city to get good social work help which we now provide conveniently in the center.

We have recently published our first newsletter. We plan to have a quarterly newsletter to inform the people in the area about the center and about health issues and about their health.

We still are working to develop our health center. We still have to get in X-ray. We have our family nurse practitioner whom we wish to get out into the community as a member of our staff, but working as a home health nurse. We have to devise an effective on-call system to cover a large geographic area after hours. We are trying to get our local hospital, Central Vermont Hospital, to make some changes in it's staffing pattern to allow our practice and other rural practices to effectively use the hospital for hospitalization without having the undue burden of traveling 20 or 25 miles back and forth to the hospital at all hours. We are preparing to line up some consultants at the university and at Dartmouth who will be our more or less official, specialty consultants with agreed protocols for our dealings. We will then always have records back about our patients who are seen in consultation and continuing education arrangements with these consultants.

Finally, we look forward to the day when we are a practice sufficiently large that we are able to become a teaching community for one of the universities in our area, to have resident physicians come out to our area and have our physicians teaching community or primary care medicine in the university on occasion, to our advantage and to the advantage of the students.

It's well recognized that physicians practice in the areas in which they train. If we can get physicians to come out and recognize that rural practice is, in fact, enjoyable and that a good quality of care can be delivered, we hope we will be able to retain them either in our area or in other areas around the State.

Our funding has come from various sources. We have a contract to take care of the college students and provide some teaching. We de-

vise a good bit of our income from billing. We have had 85 percent collections without any strong-arm techniques to get our billings in. We have a $36,000 grant this year from the northern New England regional medical program. We've effectively used CETA funding to train people to work in our health center. Our dental equipment was provided by the State through the State Department of Health.

There are several evident problems for anyone who tries to do this sort of thing that we have done. First, there is very little data and second, there is no place to get good consultation on what you are setting about to do. Third, there is very little management information available and physicians don't know much about management. There are some expert people at UVM in patient recordkeeping: Dr. Laura Reed was willing to come up and help us with a recordkeeping system—that might be formalized and improved in terms of availability to other practices.

Senator LEAHY. You are not using any part of the PROMIS system itself?

Dr. MATTHEW. No; but we are using their recordkeeping system by hand.

Fourth: There is a real problem with the attitudes of the people who teach in medical schools. I faced it when I was in medical school and we have confronted it since I have been out in practice. The attitude is that if you work as a primary care physician you are in some way missing out on the good stuff which happens in the university. We are continually confronting job offers to come back to the university. Also we receive suggestions to the effect that we are expected, in time, to give this attempt up and come back to where the real brains are. When I left my residency the people there actually told me that I was going to be wasted.

Fifth: There are a lot of legal ramifications in setting up this sort of thing. We need a clearinghouse that tells people for example how they can set up a physician's assistant training program, what the legal requirements are for having a dispensary, and generally provides information to practitioners who wish to move into a rural area, or for a rural area which wishes to organize a community health center. There probably should be a section in the department of medicine or family practice—some portion of the university—concerned specifically with rural care and which works with the rural practitioners that are associated with that medical center in it's outlying areas. Local hospital structures need to be changed so that rural physicians can effectively hospitalize patients without turning them over to other doctors.

And, finally, it has to be recognized that, like a hospital, a community health center requires startup funding which is considerable, as John Lantman says, and the public must participate if it's not a private enterprise. Thank you.

Senator LEAHY. Have we heard yet whether Mr. Laundon is at a—he is not. Okay then.

I have a couple of matters that I would like to cover with the panel before we open it up to questions either from the Interact audience or the audience here. I also want, if there are questions that any of the panelists want to ask of each other, please feel free.

Dr. Collier, just for the record, you are saying that you are using the PROMIS system but you are using it mechanically, is that correct?

Dr. COLLIER. That is correct.

Senator LEAHY. Would you like to be able to use it electronically?

Dr. COLLIER. A basic idea in committing ourselves to the PROMIS system itself lent itself to electronic manipulation if and when that opportunity arose. However, for a number of practical reasons we preferred the mechanical initial steps.

Senator LEAHY. Have you found that this has increased your accountability? You mentioned that you now have overseeing capabilities in your program. Does the PROMIS system itself increase your ability, to be accountable and to oversee?

Dr. COLLIER. That's certainly our expectation, but I really don't feel we have enough experience with it to be able to say that.

Senator LEAHY. But that is one thing you will be looking into?

Dr. COLLIER. This is our expectation.

Senator LEAHY. Thank you.

Ms. Davis, one statistic that you came out with bothers me because I suspect that it's all too true in a lot of other places. We have commented about it before, the 28 percent people you see up there that have no health insurance at all, and I suspect that the others who do have health insurance are probably ranges in various degrees of—

Ms. DAVIS. Coverage?

Senator LEAHY. Coverage or suitability. In your experience, does this tend to discourage an awful lot of people from seeking health care or seeking preventive health care?

Ms. DAVIS. I think it certainly has been one of the significant barriers. But I also think our experience has been that adults are more than willing and eager to get preventive care for their children rather than themselves if they can afford it. So we did remove that barrier and don't charge a fee for the initial examination for children or adults. And we have found just by word of mouth that there has been continued use of the preventive screening program. So I think that once that barrier is removed, people will make better use of preventive services.

Senator LEAHY. You also spoke of transportation as not being the answer. Taking your people and transporting them to another area, that this really mitigates against a community health system. Do you want to elaborate on that just a little bit?

Ms. DAVIS. Well, I think we've looked at ways of getting people into health care. I think one of the things that we don't tend to look at is the cost, overall cost to the consumer or the family when they use health services. We look at the cost of the health system, and so, even though it might provide—it might be a means of getting people at least to get health care by having a transportation system. But I think we forget the fact that it might mean a day's loss of work, it might mean making child care arrangements, that a transportation system that could be cost efficient from Grand Isle County, will go in the morning and come back at night. It's not going to make several trips back and forth. So I think that is one issue just on the basis of people inconvenienced.

The other issue as far as I'm concerned is a very important one, and, that is, do we believe that a certain level of health care should be available in communities where people live and should they be very actively involved in it, committed to it, and, therefore, assume more responsibility for their own health care and the health care of the community. This will not happen if only a transportation system is created, sending people to remote medical centers for which they feel no responsibility. The design of that health care should be through utilization of problem-oriented record systems. It is that system that encourages the patient to be the coordinator of his own care, fully knowledgeable of what is going on; and it is that process that is going to make more sense out of the present nonsystem.

Senator LEAHY. You also talked about the fact that both Federal and State regulations require you to have a physician onsite to get third party reimbursement. I find time and time again when we want to use nurse practitioners, paramedics, whatever, we have this problem of physician oversight to get reimbursement. Is this really a critical problem? Is this something that the Congress should step back and take another look?

Ms. DAVIS. In fact, there is a national experiment going on now for exploration of reimbursement of physician extenders, as they are called. Whether—sort of sounds like a prosthesis—we prefer to talk about people extenders of the health care system.

Senator LEAHY. All kinds of problems——

Ms. DAVIS. I don't know how far this national experiment has developed at this point and what the expected outcomes are. It was restricted to situations where there was a nurse or physician assistant working with a physician in practice and at times when the physician was not physically there onsite.

Senator LEAHY. Have your problems been primarily with Federal regulations as far as that is concerned?

Ms. DAVIS. Blue Cross, Blue Shield as one of the major carriers, particularly for ambulatory services, also has the same regulation. I think we understand the basis for, or the original reason for this regulation, but I think now if we can make it a system that is accountable and audited such as being promoted by the PROMIS group that the concern for quality and accountability is not justified as a reason for not having third-party reimbursement. I think now it's really primarily a political issue.

Senator LEAHY. I tend to agree and I tend to feel that one of the major issues that our committee has got to look at is reimbursement under medicare and medicaid.

Ms. DAVIS. Could I just make one additional comment in relationship to just the figure of 28 percent without any form of health insurance. I don't feel that national health insurance, at least the form in which it's presently being presented, is going to provide the answer either. I think particularly if we are going to promote preventive services in the kind of concept we are talking about today that we are going to need some form of subsidy whether it's local, State, or Federal in order to provide a total range of preventive services in rural areas in particular.

Senator LEAHY. I see.

Dr. Lantman, actually this speaks partly to something that you

have talked about and the question of health education and how that might relate to preventive medicine. Is there any method to pay for this today? Do you have any method of bringing into the classroom health education programs, of putting on programs for the community, mailings, advertising, of various things to watch out for whether it might be during flu season or whatever? Is there any method to pay for that kind of education?

Dr. LANTMAN. I think probably Dr. Matthew can speak better to this point, since he is really doing this type of educational process; but I'm not aware of any funds through the usual third-party payers to cover this.

Dr. MATTHEW. I don't either.

Senator LEAHY. You know of none?

Dr. MATTHEW. I know of none. It has to be done on the side.

Senator LEAHY. I would like—I know we have several people at the various remote areas, and I'm not sure—I should know better how this interact system works before we make any switches over. Is Mr. Laundon in Claremont? You're Mr. Laundon. OK.

Mr. Laundon, can you hear me?

Mr. LAUNDON. Yes, sir.

Senator LEAHY. We are going to be talking to M. H. Laundon who is the president of the Mountain Valley Health Center who has had to, as the result of some equipment failures, had to travel to New Hampshire.

Mr. Laundon, glad to have you here with us, and what we have done with the rest of the panel is asked each one of them to express in a few minutes' time their own program, and then we are going to open up to questions both from Burlington, questions or suggestions or statements from our Burlington audience as well as those throughout the Interact system, so please feel free to give us your statement.

STATEMENT OF M. H. LAUNDON, PRESIDENT, MOUNTAIN VALLEY HEALTH CENTER, SOUTH LONDONDERRY, VT.

Mr. LAUNDON. Thank you very much. The Mountain Valley Health Council was organized by a group of concerned citizens several years ago when it became apparent that the dedicated physician who had for so long provided care in the area would need assistance in maintaining medical services.

The area in question comprises six contiguous townships of Landgrove, Peru, Londonderry, Weston, Winhall, and Windham. With guidance from the Connecticut Valley Health Compact, and using the resources of various health agencies, a study was made which determined that the problems of health care in these six communities were serious and immediate and could be summarized briefly as follows: only one local doctor, resulting in inadequate coverage. Because of the topography, winter travel is often difficult and hazardous, from this "snowbowl" area to the nearest population centers. Even in these same centers there are only a few available physicians, and they are hard pressed to fill the needs of their own local people.

A few in our area are cared for by these doctors, but the majority tend to rely more on emergency services from outlying hospitals in

Springfield, Bennington, and Rutland and Hanover. All of these facilities are from 45 minutes to 1½ hours away by car.

Residents tend to wait until critically ill before seeking care and, in addition, rely on emergency room care for nonemergency conditions which should be routinely handled by a doctor's office.

High hospitalization rates result from delay in seeking early care due to lack of availability of preventive medical attention.

High medical cost due to (*a*) overuse of the emergency room, (*b*) high cost of transportation to existing facilities, (*c*) time spent seeking medical service, often resulting in loss of wages for hourly workers.

Lack of followup by residents for office visits or lab work because of inconvenience of making another distant trip. Visiting nurse service is poorly utilized. This service relies on physician referral. Mental health care is on a limited basis only. Senior citizens have no program available. An excellent rescue squad is available but it is often required to make trips to outlying hospitals, leaving our area uncovered while on these extensive trips.

So far, I have been discussing the problems—the primary health problem, or the problems of our area. Now, let me tell you what we have done to offer a solution in the form of the Mountain Valley Health Center.

The council is a permanent volunteer community organization. The board and it's duly appointed committees constitutes the planning and administrative body of the project. The concept has the official endorsement of all the various selectmen and of the public, via town meetings. No financial support has been requested from the six towns.

Further example of public support is the fact that over 900 people have contributed over $190,000 in cash and pledges—this is out of approximately 3,000 families.

The center is a nonprofit organization with tax-exempt status and has received certification for third party payments, having been approved by the Comprehensive Health Planning Agency of Vermont.

The center will provide primary health care to all residents, both full and part time, regardless of ability to pay, from a modern outpatient facility now under construction. When the building is completed in mid-1976, it will have space for two doctors and nurses. There will be X-ray equipment and a small lab for simple tests.

Attention will be given to preventive medicine as well as care for the sick. House calls will be made when necessary, and patients requiring hospitalization will be cared for in the nearest full service hospital, in Springfield, by the center's staff. Services will be available nights and weekends for emergencies.

The center will also be a base and provide offices for allied services such as: visiting nurse, mental health, and council for the aging. It will continue to sponsor the well baby clinic.

We actually started operations on a limited basis, from temporary quarters, on January 5 of this year with an excellent doctor, nurse practitioner, and a secretary. We are greatly pleased to report that since opening the doors on January 5 we have seen 335 patients, have responded to more than a dozen emergency calls, and are now accepted as the source of medical service in our area.

I think I should mention in closing, that an application for support under the Hill-Burton Act has been reviewed favorably by the regional office of HEW. Further, the council's activities have been deemed worthy of support from the primary care committee of NNE/RMP. We have also received a grant from the Windham Foundation. A construction loan of up to $100,000 has been assured by the Bellows Falls Trust Co., but we are working very hard indeed to minimize our debt obligations by continued public fund raising and by seeking grant aid from both public and private sources.

We most certainly hope no one in *our* wonderful area of Vermont will become sick, but if they do we we think we are well on our way to providing necessary care. Thank you.

Senator LEAHY. Thank you very much, and I'm sorry for the inconvenience earlier this morning in getting you on here.

What I'd like to do is open up first questions to the panelists or myself, or anybody else from the audience here in Burlington and then go through the various other stations on our system. Are there questions or recommendations, whatever here? When you stand will you please state your name and your address, title, whatever for the reporter, please.

Dr. FARIS. I'm Dr. Faris from Shaftsbury, Vt., and I'd like to ask both Ms. Davis and John Lantman if they can give us some idea where that funding does come from and what the annual budget is for their separate organizations, in terms of budget for patients served, for active patients?

Senator LEAHY. OK. I'll just repeat the question to make sure everyone heard it. The question from Dr. Faris was that he wanted to know from both Ms. Davis and Dr. Lantman what their budget was and where their source of funding came from.

Ms. DAVIS. Our first year budget was approximately $38,000. We received support from—well, we received a first year contract from the Manpower Division of HEW. We also have had some health department funds, RMP funds and some local town funds. We also bill on a sliding scale basis. Our cost per visit when we removed the developmental expense was $11.55 per visit which included all screening or whatever in terms of all visits put together. We have submitted another grant application to the division of community health centers for a rural initiative grant which is now pending in Boston. We are dependent, certainly, still on a significant subsidy in order to make this go until we can solve some of these other problems of reimbursement. But, as I have mentioned before, 28 percent of the population coming to the health center has no health insurance and we feel that some form of subsidy will always be necessary in a rural health seting, unless we compromise quality and eliminate preventiveness. We will never be self-supporting on a fee-for-service basis.

Senator LEAHY. Dr. Lantman.

Dr. LANTMAN. Our initial capital outlay, and this is just a rough figure, Dr. Faris, was probably $200,000, and subsequently there has been an additional $100,000 investment as capital outlay. That money came, in a sense, through the confidence two local banks had in the project and the concept. A rather small amount of the money came

from the four physicians who were the incorporators. No State or Federal moneys were involved. The present operation is financed from patient fees, either directly from the patient or third party sources.

Senator LEAHY. Dr. Matthew, would you want to respond to that same question?

Dr. MATTHEW. I think so. Excluding our dental operation, which is a separate budget, our aggregate budget for this year is about $170,000. Of that $35,000 roughly comes from RMP, about $45,000 is derived from our contract for providing care and teaching of the undergraduate students from the nearby college, and about $30,000 is what we have been given by CETA for the salaries of the persons that we have been training. The rest is derived from billings for medical service. We project being self-sufficient in 2 or 3 years. We'll be within the budget this year with what we've made from third party and patient billings.

Senator LEAHY. Go ahead.

Ms. DAVIS. One important element——

Senator LEAHY. In fact, any one of the panelists here or on the Interact feel free to step in any time in answer to a question asked of any other panelist.

Ms. DAVIS. I forgot to mention an important component; that is the continuing support in volunteer hours that are put in at the health center. They staff the center from 9 a.m. to 5 p.m. taking telephone calls, scheduling, and so forth. We also have a volunteer, 24-hour answering service that is hooked into the Villemare Health Center. This volunteer time is a significant inkind participation.

Senator LEAHY. Don't we have a situation though if the community wants or town wants to have a community system, or group of towns want to have a community health system, isn't there really an obligation on their part to provide some of that support, either financial, through land or volunteer help.

Ms. DAVIS. I think this is the important part of the concept that the community does assume some responsibility for the operation and success of the health center.

Senator LEAHY. You all who are here, Mr. Laundon, do you agree that is a basic concept?

Dr. MATTHEW. I think it is very good. There are sometimes problems in terms of using volunteers once your situation gets sufficiently complicated. We have good community support on our board. People occasionally make donations, but we are not asking any towns for money. We have people help us, for example by painting and doing carpentry work and that sort of thing, but once you get an organization seeing 30, 35 patients a day, additional volunteer traffic can be a problem and the inconsistency of the effort put out by volunteers in a day-to-day operation is a problem, or at least has been a problem for us. We find that we need a core staff and then we use volunteers for special projects. For example, we had a fund-raising picnic barbecue. We had a lot of volunteer help with that including volunteer bands to come and play for the event. On a day-to-day basis, however, volunteers are more of a problem than they are worth.

Dr. LANTMAN. Could I comment?

Senator LEAHY. Please do.

Dr. LANTMAN. I think it is important to have support from the communities one serves. I don't think it necessarily has to be financial support, but I think it has to be, I think, a support in terms of agreeing that this facility will be the center that these communities will use. There was a concept not so long ago that every town ought to have its own doctor. In fact, I think I heard Senator McIntyre, not too many years ago, even saying that he still believed in that concept. Well, I think if a group, whether it be private or town sponsored, or community sponsored, is to invest sizable amounts of dollars and effort in a health facility, there has to be some way of determining that this will reasonably satisfy the expectations of that total community. One could not develop a facility and then allow little satellites to spring up in competition. I think this would increase the cost of health care delivery, and it would, it might be destructive of one or the other of the systems, and this is where I think some form of health planning has to develop. I think we have to determine what the concensus of communities is regarding health and then put our efforts sort of in one direction. I don't think we can stand to build health delivery centers all over the place should that be the peoples' desire.

Senator LEAHY. Thank you. In our last panel this afternoon we are going into that whole question. Are there any questions?

We have a comment from Hanover. Certainly.

Ms. HEALD. Frances Heald [Hanover-Dartmouth Medical School]. I am in great sympathy for Dr. Matthew's feeling about the need to orient medical students and house officers to the new concept, and I am wondering if Betsy Davis could tell us to what extent the medical students from UVM are having a chance to see the operation in Grand Isle.

Ms. DAVIS. At the present point we do not have medical students involved. It has been talked about. In fact, one of the grants we did submit was based on that concept. One of the problems was not having a large enough population and, also, how to build in the necessary supervision for those medical students as well. I hope we can work toward that involvement, but we felt at first it was important to get the health center off the ground and operational for a couple of years before we could develop that next step. We have had nurse practitioner students and senior nursing students at the health center.

Senator LEAHY. Mr. Giltmier had a question in that regard.

Mr. GILTMIER. In that same connection, Dr. Matthew, when you indicated that there was a feeling here that you might be wasted in rural practice how much pressure is there on talented students, implied or real pressure to remain in major medical centers rather than go to a rural practice?

Dr. MATTHEW. I can't speak about UVM because I'm not from there. I trained at Vanderbilt and McGill, but I think most of them are much the same. There is a great deal of implied pressure. The real status is granted to people who get into subspecialty work. I certainly was urged at McGill to remain for further specialty training. Then, when I decided to leave specialty medicine and try this, things became not implied—suggestions were quite direct. My partner has experienced the same sort of thing. She completed her

training here at UVM. When UVM physicians heard she was in a rural practice, they called our office to urge her to return to the university. They think she is a very good doctor and should stay at UVM. I think she's a very good doctor and should stay with me.

Senator LEAHY. Were there any suggestions as to why you are wasting your time taking care of people in a rural area? I don't mean to sound cynical about it, but are those professional pressures?

Dr. MATTHEW. I think probably the people in big centers see the same problems I saw in looking out and they think that I will get out of date, be run ragged, not deliver quality care, and eventually be only seeing strep throats instead of the far out stuff. Both need to be seen.

Senator LEAHY. This concerns me because the same point was raised in the testimony that we had in our joint hearing between our subcommittee and Senator Kennedy's subcommittee in Washington last fall. We were hearing some of these same things.

Dr. FRIEDMAN. Senator Leahy, may I answer that question?

Senator LEAHY. Dr. Friedman, would you identify yourself for the record, please.

He's Dr. Ed Friedman. He's head of the family practice training at the UVM Medical School.

Dr. FRIEDMAN. Vermonters will be answering the testimony this afternoon. I won't take up a lot of time except that many of the questions that Dr. Matthew has asked and that the woman from Dartmouth—I didn't get her name has asked—is being addressed in this school by the fact that within the last year and a half Dr. Luginbuhl saw fit to develop a separate and independent department of family practice with it's own chairman, it's own budget, and with it's own program which we will get into in the testimony this afternoon. We are addressing ourselves to housestaff needs, the students, and if you are talking about emphasis on primary care, and especially in family practice. I think the University of Vermont is making some great strides forward because of the support of the dean's office and the school itself. I'd rather defer the rest of my remarks until this afternoon, if I may.

Senator LEAHY. Thank you, Dr. Friedman.

Were there other comments either on this point or on any other points?

Dr. CONGDON. Senator Leahy, I'm Dr. David Congdon. I am president of the American Academy of Family Practice for State of Vermont, and president of the Castleton Medical Center, Castleton, Vt., which we feel has one of the most unique health care delivery systems anywhere perhaps around.

Senator LEAHY. Doctor, I have to ask you to speak up just a little.

Dr. CONGDON. Just to reinforce what Dr. Friedman just said, not to belabor the point, and to answer Dr. Matthew: One: I would suggest he join the American Academy of Family Practice where you have to maintain 175 credit hours every 3 years in order to be a member. So, it behooves you. You can get behind. So we believe that study is a very important aspect of keeping abreast of the times and, therefore, must be done at the rural level as well as as the university level.

Second: Senator, I would just like to make a point that I think perhaps you would be interested in, at least I'd like to be sure you are aware of it.

This is a conference on rural health care. We already brought up the term primary care. There is a difference, and we all know that Federal dollars are coming out of Washington directed at primary care, and I just have some feeling that people are equating the two as primary care must mean care to the rural people, and it isn't so. And there is a difference and I think that probably Dr. Lantman knows as much about that as I do, and I think—I also served on the technical review committee of RMP for family practice, and I think this was one of the concerns that we have was to define primary care and what it meant. And in Washington there is a different understanding, I'm afraid, than there is out here in Vermont.

Senator LEAHY. This is one of the reasons for this hearing.

Would any members of the panel like to react to that? I'll ask the panel if they'd like to react and then we'll go around the Interact system to see if there is anyone there who wishes to react. First, on the panel—anybody wish to react—Betsy?

Ms. DAVIS. I guess, Senator, the only thing I would like to point out is the concern that always does come up in these discussions: That is the physician as the only primary care model. I think we need to look at the whole team concept, and, again, a system of care and how we can make better use of all of the other kinds of manpower resources that we do have out in the rural areas. We were able to capitalize on a nurse who was living in Grand Isle County, who had been out of nursing for 10 years, who went to the nurse practitioner program and who is now one of the nurse practitioners working in the health center. Linkage to the rest of the system is the key. Again, I'm absolutely convinced that the PROMIS system has created a scientific climate which, hopefully, will help students realize that there is a very definite sophisticated approach to general practice, family practice, whatever we want to call it, and that its nurse practitioners, physicians, paramedics, whoever is delivering it has to be part of the overall system.

Senator LEAHY. I should note for the record that along with the others who have come here from Washington for this hearing—we set out very early this morning at a lengthy and detailed explanation of the PROMIS system and demonstration of it, and that will also be part of the record.

Did anybody else want to react to this? First from the panel, and a panel member does have a question, and I also want to see if anybody else on the Interact would like to respond. We'll go next to Hanover from the panel. Anybody on the panel? John.

Dr. MATTHEW. I'd like to respond to Dr. Friedman's remarks. I didn't mean to overlook his department. It's a heartening development that medical schools now have family practice programs which are interested in this particular aspect of care. I think he would agree that he still has to fight tooth and nail to get funded within the medical school and to have his department looked on with the same regard as that accorded, for example, the department of medicine.

Senator LEAHY. We'll go into that question.

Dr. MATTHEW. I think there are considerable problems remaining. It's a nice start and I commend it.

Senator LEAHY. Thank you. Dr. Lantman.

Dr. LANTMAN. Just one comment. I agree with Dr. Friedman that the interest in primary care or family medicine is increasing, and certainly, more and more students want to be involved in this type of training, but one of the big issues that faces them is how do they get from the school out into the community? And the look at the complexities and the expenses and all of the political ramifications of developing a system out in the rural settings and this often just discourages them. And I think we need to develop some mechanism and this may have to come from communities, it may have to involve some State and Federal participation to help develop the setting where they can function.

Senator LEAHY. Thank you. We'll go to Hanover.

We've heard some testimony—could we have your name, first, please, for the reporter.

Mr. SOBEL. My name is Jonathan Sobel and I am a planning and research assistant for the Connecticut Valley Health Compact in Springfield, Vt. We have heard some testimony on the physician extender concept and have heard the words "nurse practitioner," "physician assistant," and "paraprofessional" mentioned, and I was wondering if it is really appropriate for us to be promoting certain physician extender concepts before there is any really good legal definition of the various responsibilities that relate to the various physician extenders such as the Medex and the physician's assistants.

Senator LEAHY. Anybody on the panel like to respond to that? Dr. Matthew, you had your hand up.

Dr. MATTHEW. I think that, in fact, there is a reasonable definition in this State. When someone is in training a physician must have registered with the State department of health a list of what's going on, how the person is being trained, how he's being supervised, how he or she is performing, and what they intend to learn. And when the physician extenders—be they a nurse or physician assistant or Medex—is certified to work with that physician or a group of physicians, a list of skills or tasks has to be turned in and that list is appended to their application. That is all they can do.

Senator LEAHY. I might just express a purely personal opinion, and that is I think medicine and the law, either inadvertently or perhaps by design in some cases, have created an unnecessary morass of artificial definitions and artificial handicaps. One of the reasons we are seeing some of the problems both in skyrocketing malpractice rates, but in some of the legal actions and medical actions taken around the country are the result of these layer upon layer of artificiality over the years.

Betsy, you've started simmering a little bit. Go ahead and respond to it.

Ms. DAVIS. I think you probably said it very well. Whatever I say is redundant, but I do feel that some of the legal issues are a copout, I guess, for want of a better word. I again feel that with the technology we have and the impending answers I feel we have with the PROMIS system the whole medical-legal issue could be very quickly laid to rest because eventually it's not going to be the in-

dividual that will be sued. It's the system that we have to define, have rules and standards by which everybody practices whether it's a housewife who is punching into that machine or a nurse practitioner or a physician and then what we will be tested for is our reliability and our ability to follow the rules. I think the medical-legal issues are basically an excuse for not making some changes in an archaic system.

Senator LEAHY. Did Mr. Laundon want to respond? Mr. Laundon?

Mr. LAUNDON. Thank you, Senator. The comment was made about keeping the city doctors or their desire to stay in the city, and not to come to the country. We would like to report that we feel we have reversed that slightly by bringing our doctor to the Londonderry area from Boston, from Beth Israel, and he has taught at the Harvard Medical School. So to that extent we are helping to bring the city boys into the country.

I would like, also, simply to second very much your comment on the malpractice situation. We have just secured our malpractice insurance for our new doctor and I will not report the enormous fee that we must pay, but it seriously is affecting our budget.

Senator LEAHY. I understand. I should amplify a bit on that. Speaking as a legislator one of the problems which we are going to have to look at is to what extent the artificiality of legal rules, medical rules, problems of malpractice have inhibited the ability to carry out the programs that we obviously need in the changing world. The fact that we cannot have a fully staffed hospital in every rural community. We cannot, as Senator McIntyre suggested one time, have a doctor in every town. We are going to have to look at nurse practitioners. We are going to have to look at other methods that will deliver the health care, in many instances far better. In fact, in many instances it will be the question of health care or no health care. It's as simple as that and we have got to strip away some of the artificial barriers that both the legal profession and the medical profession and the Congress of the United States through its funding policies, and various States around the country through their funding policies have built up. It's not going to be easy and I hope that one of the results of these hearings as we have them in Washington and Vermont and in other parts of the country to try to chip away at some of those foundations.

We have another question from here in the audience. Mrs. Edwards.

Mrs. EDWARDS. My name is Faire Edwards, Middlesex, Vt., Vermont Gray Panthers. Health is our primary goal of study on the part of both national and State Gray Panthers. At present the cost of nursing home care for a medicaid patient is—1,800 of them in the State of Vermont—is budgeted at $14 million. The main group of these people are elderly people. At present the elderly are somewhat over 11 percent in the State of Vermont. The planning department has a forecast for 13.3 by 1990, that's people 65 and older. I personally believe that is a conservative estimate and it is entirely possible that, nationally, by the year 2000 the people over 65 may constitute 20 percent of the population. Obviously, something tremendous has got to be done quickly about prevention of institutionalization in nursing homes because medicaid is the only way it can be paid for for any length of time. I was happy to see that Mountain Valley has tied in

closely with the elderly programs in your area, and congratulations, sir.

Senator LEAHY. Mr. Laundon, did you hear that?

Mrs. EDWARDS. He heard it.

I want to know about the rest of you, how you are getting around, for example, the deductible in medicare which means that the first care is not paid for, the preventive one that is probably the most valuable, and what programs you have set up for planned preventive services in nursing care so to keep things from happening rather than run around and apply bandaids afterwards. There's a question for all of you.

Senator LEAHY. Doctor, why don't we start with you.

Dr. COLLIER. Realize that our health council is different than the direct service that you have been hearing from the other groups. We are an informational and educational system, tying together all of the existing elements of care within the community. So we are liable to hear very early from each of the elements in our care grouping where there are obvious gaps, and interestingly enough one of the gaps we are hearing now is for foot care. This is a glaring need of those who find it difficult to reach over and themselves clip their toenails and which without appropriate care may lead to many of the prolonged institutional problems a real concern in our older age group. It is our hope that by having the entire health community meeting together on a regular basis that as these individual concerns come in that they can be reassigned and then their effectiveness audited through the health information system. So I would hope our cooperative system gives us a quicker and more thorough handle on the individual needs and that we are then able to react as a community, appropriately.

Ms. DAVIS. In our health center, as I mentioned earlier, there is no out-of-pocket expenses to the individual seeking the first screening exam. We know that we have not reached very many of the senior citizens. Many of them are already under some form of care but primarily crisis kind of care. As a population we hope to reach more through the health center. The way we reach that population is through our home visiting program which I think you are familiar with, Mrs. Edwards, and that is where we are struggling very hard to provide those services at home to keep people out of institutions. But just to quote another statistic, home health services received less than 1 percent of the medicaid dollar spent in the State, $200,000 to be exact, when I think about $14 million that is going to support people in nursing homes. We have a long way to go before we can do a better job with that, and, that's again, another political question.

Senator LEAHY. Dr. Lantman.

Dr. LANTMAN. I'm sorry that I don't have an answer to the question. I have to admit that our center has been no keener than others in finding ways of handling this. Again, I think probably Dr. Matthew is doing more as he develops his public education project. I think this a national issue. I think that no one should be denied health care, and I think health care does include preventive care, and I think we have to find some way of paying for this care particularly by those people with limited resources.

Senator LEAHY. Dr. Matthew?

Dr. MATTHEW. There is certainly a need for more effort in this area in our health center. In answer to your question about the deductible for medicare, medicaid picks it up in some cases. We have made no provisions for those persons who don't have medicaid to pick up their medicare deductible. I agree with Betsy that the best way to keep people out of the nursing home is to have an effective home health nursing service. We have a home health nurse operating in our area, but what we have proposed to do is to have a family nurse practitioner on our staff to see the patient at the health center with me, or with my partner, and then later see them in their homes. We will thus have someone whose skills we thoroughly know and see the patient together and then she will see them in their homes. That presents a problem in third-party payment. We won't be at the patient's home when she's visiting the patient at home or it would be a doctor's house call. We wouldn't be reimbursed for the nurse practitioners application of special skills as a physician extender, but only for her use of nursing skills. But having her provide some care in my stead could provide real economy to the patient.

Senator LEAHY. I take it third-party payment becomes the real problem—it's not so much getting the personnel or even training the personnel, it's the third-party payment.

Dr. MATTHEW. It's making the ends meet. Similarly, if we did screening for blood pressure outside of the health center we have problems who can do it, who's covered by malpractice insurance and whether or not any payment can be derived from third parties. I can easily have a nurse practitioner initiate treatment for hypertension, but her visit won't be paid for unless I'm there. So there's some real problems in that regard.

We have talked at our board meetings about establishing a group home in our area rather than outside our area so that when older persons do require some help of that sort the prospect will not be so represensible. The home would be in their community or in a nearby town accessible to their family for visits and they would not feel that they have been sent off to the city for a nursing home.

Finally, there are two other provisions that we have undertaken. One is that we have started a pilot health station in one of our towns—a village, I should say, within one of the towns—where food stamps are sold and classes are held and where the senior citizens meet there regularly. We wonder if we can take some things out there to people who have transport problems and can't get around as easily. We plan in April a breast and cervical cancer screening program. It's interesting to note that the catch rate on Pap smears, for example, is much much greater in older women than younger women, yet mainly the younger women come for routine care, because they have their prenatal exams, for example. Similarly, we plan a blood pressure screening program. We have had a State health department van come out and do glaucoma and blood pressure screening. I guess everybody realizes that that's no longer funded in the State department of health, and so although we have the vans supplied by—is it the Lions Club? They have the vans on hand they don't have the operating funds for them any more.

Senator LEAHY. Mr. Laundon, did you want to respond to that one question? I hate to do this but we are going to have to cut off on

this one last question because we have gone overtime, and we are going to want to be able to start our panel this afternoon—in fact, we are going to need to start at 1 o'clock.

Mr. Laundon, on that specific question of the medicare payment, did you have anything you wanted to add other than what the panel has said?

Mr. LAUNDON. I think not, really. We're too young at this stage to make any viable comment. I can only say that our doctor will be publishing weekly articles addressed to this older group. This is about all we can say at the moment.

Senator LEAHY. I might add for the people here in the Burlington audience and to those who are listening through Interact, I have a list of questions that we also have not had time to go into, and I suppose we could spend days and still not cover all of it. I am going to ask the panelists who have been extremely good with their time, in volunteering their time not only today but in preparation for this, if on some of these questions we might submit them for further follow up. I'd also point out that the audience here and throughout the State of Vermont and New Hampshire have been very good and very patient. I am sure that a number of you have further questions. Don't hesitate if you have statements or questions or suggestions to write to me either here or in Washington at the U.S. Senate with those questions. We will try to get answers for you. If you have statements I can assure you they will be inserted as part of the record. Please, if you do have such statements, if you do have such suggestions, help us, and send them because I can't emphasize enough the importance of these hearings. It's the first time they really looked into the question of rural health care delivery. And I compliment Senator Clark immensely in starting this, Senator Talmadge, the Chairman, Senator Dole, the ranking minority member on the committee, have given of their time and efforts and commitments on it, so anything you can do will be extremely helpful, and it will be appreciated.

So thank you and we will break.

[Whereupon at 12 noon the subcommittee recessed to reconvene at 1 p.m.]

AFTERNOON SESSION

Senator LEAHY. Those of you who are joining us this afternoon, as you know, this is a hearing of the Subcommittee on Rural Development of the Senate Committee on Agriculture and Forestry, chaired by Senator Dick Clark of Iowa, and I'm one of the members of the committee and we are looking into the whole question of the delivery of health care to rural areas. Now, there are a number of other questions involved with health care and they will be handled by the health subcommittee chaired by Senator Kennedy of Massachusetts. There's some question—a couple of you mentioned at noon—whether we are getting some duplication. We are not. Senator Kennedy's subcommittee and our subcommittee have worked very closely. In fact, we held a considerable joint hearing in Washington on this subject, and we will be holding and will continue to hold joint hearings there and in other parts of the country on this question. Among other things to get rid of the duplication that we now

find in the health and the legislative areas. I also mentioned that Senator Clark came down with the flu over the weekend and has missed both the day of skiing that we had hoped for him yesterday and the day of hearings today and he sends his apologies.

Senator Dole of Kansas, ranking minority member of our committee, also has a representative here.

So I emphasize that what we are looking at, of course, is a question of Federal law. We have this hearing in Vermont and we have it in other parts of the country, but it does not involve Vermont State law as such, although we want to use some of the models here in Vermont.

And now we will turn to the panel and ask each one of you to give your opening statement and we will follow the same format we did this morning. Afterward, if any one of the panel members want to question each other, feel free. We also hope to have questions from the audience and also questions from around Vermont and New Hampshire on the Interact system.

The first participant will be Mrs. Janet Brown from the UVM School of Nursing. Mrs. Brown, I want to thank you very much for taking the time and the effort to be here.

STATEMENT OF JANET P. BROWN, SCHOOL OF NURSING, UNIVERSITY OF VERMONT, BURLINGTON, VT.

Mrs. BROWN. I'd just like to take a moment to clarify my role here at the university. I am the nurse-coordinator of the family nurse practitioner program, and I also hold a dual appointment with the Visiting Nurse Association of Burlington as their coordinator of continuing education.

I'm going to be in the same boat as Betsy was this morning in trying to keep my tempo down for the reporter's sake.

The role as envisioned by the nurse practitioner movement was stimulated by many events that are now widely written about. Two of these reasons were to provide more and better ambulatory care for the citizens of the United States of America, be they urban or rural; and to utilize the expertise of that professional person—the nurse—who is already working with the health care system to a much fuller extent. The first program here in Burlington was in 1973–74. It was sponsored by the Visiting Nurse Association of Burlington in cooperation with the school of nursing, office of continuing education for health sciences, University of Vermont, and with a great deal of input and encouragement from the College of Medicine, University of Vermont. And moneys coming from the northern New England regional medical program and the Vermont Health Department. As of 1974–75, the sponsorship of the program was transferred to the school of nursing in cooperation with the medical college and office of educational support of the university and the Visiting Nurse Association of Burlington. Funding for a 3-year time was received from Division of Nursing, HEW.

In the 2-year period 32 nurses have completed the requirements of the course of study. Via the graduates of our program we have seen that, yes, we are meeting health needs, in a small measure, of rural America. How are we doing this? Via the use of the expanded role

in home health agencies which support mobile vans that go into small communities for purpose of well child care; health centers run by nurses with M.D. backups some miles away; home visiting, screening clinics, by linking the nurse with physician offices and group practices.

We also have seen the nurse in an expanded role within a busy, overtaxed, rural health center which is a group practice. You heard this morning that another graduate of the program is in the practice of Dr. Matthew and in his health center. Via the use of the nurse in an expanded role to give health care services coming out of the physician's office to rural nursing homes, and you will be undoubtedly hearing more about that this afternoon. And via the use of the nurse practitioner as a primary health care provider in a busy, overtaxed, outpatient department in the Veterans' Administration Center; and their envisionment that she will be able to serve this role in the decentralized health center which would make the services more available to clients in rural Vermont.

If we want to categorize the type of services that these nurses are providing we would say that they fall into two main categories: (1) Giving of crucial services, diagnosing and treating via protocols, meeting the episodic needs of the clientele, thereby expanding the capability of the number of people being seen who are in need of medical care; and (2) adding to the quality of existing health care by facilitating the entry into the health care system, by serving as a primary care giver, thereby dealing with all aspects that effect a client's health, both the body, the mind and the soul, or, as other theorists say, we look at the physical, the mental, the emotional, social, the recreational, the environmental, the financial, and the spiritual needs by focusing on health education needs, by providing preventive care, by providing care itself to a certain caseload of patients, by providing followup care with its focus on patient's education and adaptation to the change that the illness has necessitated on the client and family, and by serving as a coordinator of services.

What is hampering these graduates from meeting the rural needs? One is a lack of attraction in moving to a rural community because of personal and professional needs and primarily because of the majority of our teaching—or this is my thinking anyway—the majority of our teaching in clinical work is in a medical center. When a candidate has come from a rural area that needs additional services, we have seen them return to this rural area and become incorporated into that system. It is sad, though, that in these past 2 years we have seen nurses who live in rural areas, who have been concerned that their area is not being covered by health services, who have come to us and we have not been able to plug them into any kind of a system so that we could actually bring them into the program and then return them to their community. The establishment of a realinement of roles is expensive. Much study, thought, and planning has to go into this process and limited numbers of private practices or health care delivery systems can expend this type of money from it's own budgets.

Another hampering factor is the stipulations that need to be met in third party payments. Most insurance programs do not recognize that the nurse as a practitioner is able to function in her own right.

To give, as you heard this morning, to give adult care, in order for it to be reimburseable, the physician must be on the premises. To provide more health care to the client in the nursing home the practice is restricted financially because of the restricted payment clauses. To give emotional support to the family so that an elderly person can remain in the home environment often does not qualify for reimbursement. Therefore, a taxation is put upon the system that is going to give that kind of service.

There is legal structures that hamper us via the practice acts, not only the Nurse Practice Act but the Medical Practice Act and the Pharmacy Practice Act which is definitely being worked upon within our own State.

Also, medical supervision for medical acts. This back up has to be available at all times. It may be removed from the site of operation, but must be available. This again is a costly adventure.

And the sixth hampering factor is the need for 24-hour, 7-day per week transportation system that will link that nurse and that consumer to additional health resources that they may have to call upon.

When looking at the Federal policies might I point to the following additional items that hamper this role. Programs are still rewarding the health system and teaching the general population that illness is rewarded and not health. Likewise, we still define skilled nursing as doing medical therapeutics. The expertise of the nurse, if utilized to the fullest, would include and be better described as interviewing, counseling, teaching, using a combination of these skills, to help people cope with their life situation and to live their lives at the highest possible level of wellness.

Three: The continuation on the Federal level of viewing health care as only medical care. Comprehensive care must include all aspects of care that effects one's degree of wellness or illness. It must bring to bear all forces, all disciplines that can affect health.

Health care—I think we have heard very well this morning, is not synonymous with medical care. It denotes promotional and health education, preventative care, maintenance as well as those medical aspects. Therefore, for efficient and effective utilization of manpower the head of the team should not necessarily be the doctor. At sometimes it might be the behaviorist from the psychology department, the nurse with the physician consultation and technical assistance, the speech pathologist, the social worker or the clergyman. Therefore, if the physician continues to be put in a place of dominance the use of other types of manpower in the rural areas to affect health care is going to continue to be hampered.

Four: The supervision of health workers is often mentioned in Federal documents to be administered by a physician. Since when do we have lawyers supervise the functioning of the clergy, the clergy supervising the functioning of the doctors? Yes. There are aspects of health care that rightfully the physician should supervise. That is medical care, but not, for example, those aspects of care that are truly in the realm of nursing or dealing with the spiritual or the health education needs. You then ask who is the head of the team and who will supervise whom? It necessarily is different depending on the goal to be achieved.

And I would like to add the last area that I see that is hampering us on the Federal level and that is that so much legislation is not broad enough so that we can experiment with new uses of professionals and paraprofessional people. We are hampered by the rule or regulation or the financial stipulation.

Senator LEAHY. Thank you, Mrs. Brown.

As I reiterate somewhat a statement that I made earlier today expressing again my own philosophy. We are hampered, in what we can do in providing medical services, by what has in many ways been an archaic form of Federal grants and third party payments or restrictions on where medical payments can be made. I also think that both the legal profession and the medical profession have over the years put up some artificial barriers that really have little relevancy in many areas with today's society and makes it difficult for adequate and appropriate medical care to be given.

Our next witness is Dr. Arthur Faris. Dr. Faris had a question earlier this morning during the hearing. Dr. Faris is a solo practitioner from Shaftsbury. Dr. Faris.

STATEMENT OF DR. ARTHUR S. FARIS, SHAFTSBURY, VT.

Dr. FARIS. Thank you. First of all, for the record, I'm not exactly a solo physician. My wife is also a physician and we practice together in a partnership, but in terms of coverage it really doesn't make much difference. We like to take the same time off.

Senator LEAHY. I think that's understandable.

Dr. FARIS. I have been practicing in the town of Shaftsbury for about 22 years now. The town has a population of about 2,500 people, and we draw from an area slightly larger than that with surrounding towns. My wife is doing the same kind of practice as I am. We both love our work and we are both deeply discontented with the way we are doing it now. I'm speaking basically for myself and I know I know there are a number of family physicians who do not feel as I do, but I know there are a great many that do, and I think that there are some major problems with family practice in a rural setting that I'd like to talk about. I'd like to stress the point that I'm talking about family practice because I think that to bring the question of primary care into a rural setting is misleading. I do not really think that in most small towns you can have a unit large enough to handle primary care except through the family physician system. There are other primary care groups which include internists, pediatricians, and family physicians, and sometimes obstetricians, but these require a fairly large patient population and a fairly large number of physicians for a group, so I think when we talk about rural medicine we are talking about, primarily, the family physician.

I see one of the major problems in rural family practice is the difference between the public expectations and the realities of medical practice. Many patients in many communities still look with great nostalgia and great hope on the image of "Good old Doc." He was always available 24 hours a day, never went away. He was a dedicated and kindly man. He was not interested in money. He's usually elderly. He should be within walking distance and ready for any and all

emergencies, and, of course, the modern corollary to this is when you have a man like this you also feel that he probably really doesn't know much about modern medicine so you should have readily available a central facility where you can refer yourself when you are really sick.

Another version of "Good old Doc" is Marcus Welby who is a modern "Good old Doc." He had two patients a week to worry about and they all get well. The actuality is, as I see it, the rural patient needs a physician who is available and this means within a reasonable distance of where the patient lives, available in the office for a reasonable number of hours a week so the patient can get to him without too much loss of time from work. This physician needs to be well trained. He does need to be compassionate and understanding. He needs to be aware of limitations, willing to refer when referral is needed. He needs to be well rested.

This brings me to the question of what are the problems for a physician, family physician in rural practice? The outstanding one is isolation from other physicians. It's difficult for a single solo practitioner to keep in touch with what is going on in medicine. It's even more difficult if he doesn't have somebody he can sit down with a few times a day and talk about the problems that have come up. It's all well and good to read the journals and go out to a meeting, but very frequently one simply needs some cross fertilization between another physician so you can get a different viewpoint on a problem that comes up at the time the problem comes up.

The second problem for a rural family physician that I have experienced and that I think most have is one of fatigue. The solo physician, even if he tries to limit his office hours, even if he tries to schedule things so that he has reasonable time off is always going to find himself, at one time or another, in a situation where is really too tired to do what he knows how to do and I think that this is a difficult problem that needs to be met. I'm quite sure that a great many of the justified malpractice suits that occur occur because of actions taken by a physician when he really wasn't at his best and really did something or did not do something where he knew better.

The other great need for the rural physician is to have adequately covered time off for retraining and for family activity. Retraining is vitally important. When a medical student graduated from medical school 30 years ago he was told, "You have now learned the science of medicine. You'll spend the rest of your life learning the art of medicine." This is no longer the case. The science of medicine changes so rapidly that every physician, no matter what his field, needs to be constantly undergoing retraining. Now, if the physician is practicing in a medical center this is not particularly difficult although I'm sure they have their problems too, but for the physician practicing in a small community, especially if he's practicing alone, it becomes extremely difficult. He has to explain to his patients that he is taking a week off. Mrs. Smith, I know your baby is due this week, but I have to go to a meeting someplace and she doesn't understand. She thinks next week would do just as well. Thus, I emphasize that this has to be covered time off, and by coverage I don't just mean a physician in the next community who happens to say, okay, if any of your patients get real sick I'll take care of them. It needs

to be coverage where the records are available, where there's some continuation of medical care, where people don't feel that they're making excessive demands on the physician in order to get coverage while their physician is away.

And I'd like to restress what I said a moment ago about time off for family activities. In the image I gave you of "Good old Doc" nobody ever thought of "Good old Doc's" family, and if you have a Doc who spends no time with his family, who takes no time off with his family, you can almost guarantee that this man who is supposed to be the compassionate understanding family advisor is a neurotic, and I don't think you want that.

I think another important thing that the family physician needs in a rural setting is an assessment potential. He needs to have some system of determining where he's keeping up and where he is not, where he's measuring up to generally accepted standards and where he is not, and where he needs to stress his retraining program. And this system has to be something that is nonthreatening. It's not to be a system that where he's told if you don't keep this up you'll lose your license. It should be on a voluntary basis and it should be on an educational basis rather than the punitive basis. The family physician in general and rural family physician in particular needs a recognition of status. Most of us in family practice have for years felt ourselves to be second class citizens in the medical world, and I think we are not. I think we are doing a valuable worthwhile service. There was some mention made this morning about the resident leaving the medical center and being told by his mentors that he was probably going to waste himself out there in the boonies, that he would be, he would end up all the time treating strep throats and doing nothing significant. Well, the fact is there are significant things for a physician to do. They should be recognized and the family physician should be given by himself and by his colleagues a status that he deserves.

And finally I say one of the other problems for a family physician in rural areas is one of economics. My area is little different from Grand Isle in terms of the number of people not covered by medical insurance. I recently did an estimate of the breakdown of the patients in my practice and found of the number of patient visits seen in a given period of time about 25 percent were patients who had no medical insurance or no medical insurance that would cover any outpatient services.

And the family physician because of his unique relationship with the family frequently finds it very difficult to press patients for payment. I think that some attention must be given to certainly better coverage of outpatient ambulatory facilities that are currently available to many people in rural America.

The patients of the family physician have their own problems, and I'm well aware of these and I'd like to outline a few of them. First of all, the more rural an area gets the further away a medical facility is going to be for some of the people in that area. The convenience of the physician's hours is another problem. Most of us find that if we start practice at 8 o'clock in the morning we don't feel much like practicing past 8 o'clock at night, but there are patients who find that they cannot get in to see their physician within these office hours

unless they take time off from work and this, of course, is doubly expensive to them.

Waiting time is another problem. It's difficult enough to schedule an office, and in doing the kind of work that needs to be done in a family practice it's very difficult to arrange just how long each patient is going to take, so frequently there are backups and there are losses of time.

A major problem that patients have is their confidence in their physician's skill. They are not sure that this family physician really is keeping up. As I say, some of them do when they feel really sick refer themselves to a more distant medical center and reserve their family physician for more or less episodic care of minor illnesses. The patients need comprehensive care and this means preventive care as well as episodic care of illnesses. They need health education. Health education is not paid for by third-party payers. Preventive medicine is largely not paid for by third-party payers. I don't know why Senator Clark didn't have a flu shot, but maybe because it wasn't covered.

Senator LEAHY. Believe me, that is one thing about the Senate. It's covered. I suspect knowing the way Senator Clark works he probably never took the time.

Dr. FARIS. The other needs that patients have are for continuation of services. By this I mean continuation of services while the physician is away. I also mean continuation of services after that physician leaves practice. A number of physicians in our community have recently left practice and all of their patients have been left with, at very best, a limited tie over between the old physician and the new one who is taking over. Sometimes office records are forwarded and sometimes not. When they are forwarded they are frequently in a format that is different from the physician who is now taking over the patient and it's hard for him to integrate them into his own office records, and by and large, a great deal is lost in transition. And I think that this is a problem that we run into.

Senator LEAHY. I'm watching the clock. One of the problems, I just received a note that we are running overtime, doctor. I want to make sure that we left time for the other three.

Dr. FARIS. I'm sorry. I didn't realize I was taking so long.

I think I'd like to just summarize a few of the difficulties that have occurred in some of the areas that I have seen where people were trying to bring private physicians into a local community. One is the question that has been raised about a physician in every town. This is local pride which often is a problem. The other is the question of the availability of funds to start up clinics. I think that financial and technical aid should be available to set up such facilities and regional advice as to where location is logical and feasible.

I think I will stop there.

Senator LEAHY. Thank you very much.

And a number of the areas you have hit on I find in my own list of questions and we'll be going back into them.

Dr. Friedman is the head of the family practice training at UVM's medical school.

Dr. Friedman, I know that you have some particular and some strong views in this whole area and the panel is yours.

STATEMENT OF DR. EDWARD E. FRIEDMAN, UNIVERSITY OF VERMONT, ESSEX JUNCTION, VT.

Dr. FRIEDMAN. Thank you, Senator.

I have changed my talk at least five times since this hearing started this morning, mostly because what I have to say is going to take too much time, second, because many of the areas have already been hit upon. I thought maybe if I took a few minutes to maybe stress what I feel is necessary in the new approach to primary care and family practice, and secondly, what this school and our program is trying to do about it. I'll leave the gripes and the moans and all of the other problems to the other people on the panel.

First of all, having been out in practice and having been one of these people that Dr. Faris talks about, the ancient practitioner who was poorly paid—time poorly managed, and I think in a way poorly educated to do my job, I feel that I had probably a good introduction into why things should change and what we need presently to serve a State such as Vermont which is primarily rural and to provide medical services to most of the people for most of the time. And in looking over the State we find that the old problem, as Dr. Faris mentioned and that others have, is that each town wants their own doctor. It is a matter of pride but it's financially not feasible and it doesn't even make good sense for the doctor. You're going to get the type of care which is under serving small communities that can't afford physicians, and can't give them adequate time to do their work.

I think we have to look toward regionalization of medical services, putting physicians in localities around the State to serve areas and regions not towns, and staffing these different areas or regions with a type of personnel to which Janet Brown makes reference. The physician's assistant, which was mentioned earlier this morning, must fill a need of an area rather than a particular town and develop some sort of communication and coordination with the facilities which are further from this point and offer a more specialized type of care, namely, secondary care and tertiary care. What I'm really saying is to develop sort of a hub around which there are spokes to make a wheel which joins the whole unit together, a network of medical services intercoordinated communicating with each other and offering services in specialized areas without duplication. I think that's the goal if we are going to have a goal.

Senator LEAHY. You feel that as Dr. Matthew and Dr. Lantman and others were indicating this morning that as each community, whatever type of community health care is set up that it's vitally important to have coordination across the board? Probably going into the next panel in a way, but Dr. Lantman stressed the fact that the Thomas Chittenden Health Center could not work well if all of a sudden there was another one placed next door, or if there was not coordination with other existing facilities.

Dr. FRIEDMAN. Well, that makes medicine very expensive and it's also a duplication of efforts and we should try as much as we can to know what the other person is doing and work together toward some sort of an end that provides the most for the most people. I don't think we are going to do it by just grinding our own axes. I think

we are headed in this direction, working together. What we are trying to do is build a health center, like they're doing at Thomas Chittenden Health Center, at Castleton, like what's going to occur at Berlin with the ambulatory unit that's going in next to the Central Vermont Hospital. I think we are talking about regionalized medicine with coordination with the next echelon of care providing availability of specialists and all these secondary centers, and like in the State of Vermont, the bordering State of New Hampshire and New York State we have 3 tertiary centers available to these regionalized units.

We could go on forever talking about how this could be managed. We have several good ways to accomplish this.

I just want to make one more reference to how this kind of a system can work. We can't put all the people necessary to run the system in one facility. That's why I think we need Janet and her people and physician's assistants to fill the gap between these areas.

I think a nurse practitioner—correct me if I'm wrong, Janet—has two roles to play. One is truly to aid and support to a physician in his office so that he can be allowed the time to do his more expert duties and the nurse practitioner to do more technical work and the more algorithmic type of work and some of the screening. I think there's another type of nurse practitioner such as they are tying to do in South Hero where she substitutes for a physician in some way but has a liaison with one or two medical centers so she has a backup physician when she needs one. She's pretty much out there alone and I think we're going to have to do this in certain areas of Vermont because they are a little too far out from the region of medical care but too close for a physician to survive by himself financially. I think we have a need for a paramedical person and a physician extender, if you will, in many different roles.

I'd like to talk 1 minute about what we are trying to do in our program to alleviate some of these problems. Back when I started in practice and probably when you did, Art, we went through medical school, we got our internship, we went directly into practice with several thousand dollars worth of debt. We spent the next 3 or 4 years of your life trying to learn how to be a physician. But we are trying to reverse that now. We are sending the family practitioner into practice with those 3 or 4 years of extra training accomplished before he starts his own practice so he doesn't have to flounder and try to learn while he's practicing and making a living as we did in the old days. This program that we have at the University of Vermont is geared at three different levels. First level is at the undergraduate which is the medical student, presently we are mostly concerned with the last year and a half in school, but hopefully in the not too distant future we will be going back as far as the first year of medical school and developing a program where they are led in the direction of primary care and especially family practice. I won't go through the design of the program. It's available if anybody wants to know about it but it's there.

In this program we have also developed five preceptorships established in cooperation with the Department of Medicine which are truly family practice sites for the most part. There is the Castleton

Medical Center, the Peru, New York, Beaumont Center. We have one in Montpelier with Bill Allard and his group. We also have one in Hamden Highland, Maine, and the Given Health Care Center right here in Burlington. Here we are trying to treat comprehensive primary care and family practice. The students do participate in all this, and to answer Dr. Matthew's question, where does the student get his training? He's getting it on site in a place where the action is.

Second, we also have a residency program presently with six residents who are post graduates after medical school training in family practice. Training primarily is via the unit in Milton which is the model family practice unit and with ambulatory services through private physicians offices and the medical school itself, medical school faculty.

Third, I think that the program has made a very definite effort in the last year and a half to provide for people like Art Faris and John Matthew and others who are out there working hard, to have available to them a continuing education system. They can keep themselves abreast of the times, advance with the times, and be able to keep themselves educated and refreshed in medicine through a system of classes, refresher courses, lectures, synopsis, that is sponsored by this department.

I'd like to address myself to transportation and funds and resources and the rest of it, but I'd like to give Bill Luginbuhl a chance to talk, and I would like to hold some time available for answering some of the questions that have come up that have not been adequately answered.

Senator LEAHY. No, and I am afraid that any hearing of this nature we're never going to, or at least in one day's time, or even going into this evening as we are; we're not going to get all the matters adequately answered. We certainly aren't even going to get all the questions asked. I do want those who are listening throughout all this to know that once the panel has finished feel free to come in and question anything that has been said, because, I think we are aware of the fact that there is not adequate delivery of health services in rural areas today. We are also aware of the fact that some of it is because we have been unable, for either legal or financial or other reasons, to break from some of the traditional modes that just cannot fit the rural area.

Now, our next witness is Dr. William Luginbuhl who is the dean of the UVM Medical School who's been very helpful to us in setting up these hearings and has provided for the hearings material which has been put in the record.

STATEMENT OF DR. WILLIAM H. LUGHINBUHL, DEAN, COLLEGE OF MEDICINE, UNIVERSITY OF VERMONT, BURLINGTON, VT.

Dr. LUGINBUHL. Thank you, Senator.

I'm going to begin by summarizing what I've heard others say. I've heard them say two thing. First of all, that the pattern of having a solo general practitioner in every town is not the way to deliver rural health care today. I very much agree with that and I think that the reasons we can't do it are both economic and professional-scientific, and I think they have been covered.

The second thing which I have heard said is that there is a way to deliver health care in rural areas. It's being tried in a variety of sites in the State of Vermont and it's working very well. Not all of the sites are identical in their approach, but there are certain similarities which carry over, certain common characteristics. They have groups of professionals working together. They have supporting staff working with those professionals. Most of them are using the problem-oriented medical record. They have broad community support, often by a formal organization. Those are the two things which I have heard.

Now, it's attractive to say, let's simply replicate these successful experiments. Let's just apply them throughout the United States and we will solve this problem of rural medical care.

Well, unfortunately, I think there are some problems with doing that. There are some problems with these experiments that we have in Vermont and elsewhere, and I think we should focus on what those problems are, and correct them so that we can, indeed, replicate these solutions which we have under test.

I'm going to speak particularly about the problems with physician manpower in reference to these various health centers. I don't mean to neglect the problems of nurse practitioners, medexes, and so on. I think there are others, however, who are more expert in this particular area. I'm going to talk primarily about the problems of physician manpower for these various health centers in rural areas, and I see three problems about which I want to talk. I have selected these three because they are, I think, problems which are amenable to action by you and your colleagues. I think these are problems about which something can be done through legislation. The first problem is economics of practice in these rural sites. The second is the economics of training family practitioners, and the third is economics of medical education today.

The economics of rural practice is very simple. It doesn't pay as well as it does in suburban practice, and although today's medical students and graduates, I think, are refreshingly idealistic, they cannot be totally oblivious to economics. Rural practice is by definition, as we heard, family practice or primary care, usually family practice, and the simple facts are that under our systems of reimbursement to third parties, this does not pay as well as do many of the specialties, particularly the surgical specialty, so to attract a physician to the rural area you are fighting against an economic gradient. The United States, I think, could learn a lesson from other countries. We can look to what our neighbors in Canada have done. We can look to Western Europe and to those countries which have found that it is necessary to correct this economic gradient to make rural practice, to make family practice more rewarding financially. I would also say that because we are having some success in Vermont we shouldn't overlook the fact that there are areas that are less attractive geographically. Part of our reason for success is, frankly, geography and I think there are areas of the country that are having more trouble than we are because of their geography. And I think once again we have to look two ways to make a rural practice more attractive to the young physicians, and one of the ways of doing that is by correcting this financial gradient or this financial disadvantage.

The second point I want to speak to is the economics of training. It is very hard to train family physicians today because it's hard to get anybody to pay for the training. If you want to set up a surgical residency, a neurosurgical residency, for example, even though most people would agree that we have plenty of them in this country, it's very easy to get it funded. You put these residents in the hospital and they do work in the hospital and you can collect from third parties. If you want to train a family physician out in the community, which is logically where he should be, it's very difficult to get reimbursement. There is inadequate support for the training of family doctors in this country. There are lots of young graduates who would like to get a quality residency program in family practice but cannot find one. I do think we have to put more money into the training of family physicians, and I'm sorry to say it, but I think we have to limit the number of residencies in some of the other specialty areas. It is being done in other countries. They have done it in Canada, for example. I think we are going to have to do it in the States.

Now, the third problem about which I want to talk briefly is the problem of the economics of medical education, and this is a growing problem, not as serious as the other two at the moment, but potentially very serious. Medical education is quite expensive. The tuitions are rising dramatically in many of the medical schools, particularly, the non-State schools, and we are pricing ourselves out of the reach of a person from a nonaffluent background, a poor person. If you want to get people to go to rural areas to practice, the best way to do it is to take people from the rural area and have them go through medical school and return. Study after study has shown that people from an urban environment rarely go to a rural environment. Most of the doctors going to rural areas have come from rural areas, but medical education is becoming so expensive that it's very difficult for the nonaffluent to afford it, and I'm very worried this problem will become worse because there is a strong argument being voiced in Washington—let's withdraw support for medical education. Let's let the tuitions go to $10, $12, $15,000 a year. After all, they are all going to be rich doctors and they can pay for it. Well, I'll tell you, if they pay $10, $15,000 a year coming out of school with $50, $60,000 in debt they damn well are not going to be able to go to rural areas where the practice is less rewarding. It's a very serious problem and one I think we have got to be worried about.

In summary I see two approaches to rural medical care: (1) The old approach, the solo physician which is clearly not viable, and (2) the new approach, groups of professionals working together in a community which I think is viable if we remove some of the economic impediments to the development of that kind of practice. We have to increase the financial rewards relative to the financial rewards of urban practice. We have to train appropriate doctors and that means funding residency programs, and we have to get people into medical school from rural communities. We have to support them while they are in medical school, and then I feel they will go back to practice. Thank you.

Senator LEAHY. Thank you very much, Doctor. I appreciate both that testimony and that which we received earlier.

Our last witness on the panel before we open up to questions with the panel is Dr. Lloyd Thompson. Dr. Thompson is a Lyndonville physician. He was formerly with the National Health Service Corps. Dr. Thompson.

STATEMENT OF DR. LLOYD THOMPSON, LYNDONVILLE, VT.

Dr. THOMPSON. I am a doctor in Lyndonville, Vt., which is a small college town in the eastern portion of the State. I first came there 2½ years ago with the National Health Service Corps. I am now in private practice and have been for the last 6 months.

During my time there I felt often that I straddled two ideologies that I think have been mentioned very often and with a sense of cliche because that is how we think about them. The first is the strong tradition in Vermont of the solo small town practitioner. The other is that of the medical center training, young internist or family physician. I have a lot of admiration for the caricature of the solo practitioner but I think that is one of the reasons why I went to medical school. Certainly, it was what I thought of my own father and uncle and grandfather who were physicians in Virginia. And in fact, my great uncle was shot from his horse as he went on a house call. I'm not so sure that we want to talk about pay for service in that, but at any rate, I think that many of these, many of our ideas about family practice are worthwhile ones, and I think some of those characteristics of the older physician, or at least that old tradition, are things that we should still try to retain, a sense of gentleness, time, time of their patients, graciousness, and I think disregard of some of the financial pressures involved with medicine. I don't think that, I don't think that, obviously, we want to go back to that same model, and I think that if we can look to some of those overqualities as we try to weld it with our newer, hopefully, more scientific practitioner that perhaps we can come up with something that is going to be a little bit more worthwhile and will serve as more of a family practitioner model.

I was a member of the National Service Corps, and I think it might be worthwhile to describe that to you if you haven't heard of it. It's a federally funded program that was designed to try to introduce young physicians into rural areas. It was first introduced during the Vietnam war and I think many of the people who first came to the National Service Corps did so as an alternative to military practice, but at any rate, it was an attempt to try and place younger physicians in areas that never could support physicians before. Generally, the town had to describe a need for the National Service Corps, and it had to demonstrate willingness to go along with setting up a medical practice. The physician had to agree to go into the town after looking it over and the National Service Corp provided moneys to pay for his salary. All of these things were thrown into a pot. The physician was set up in his practice and was on his own for 2 years as an alternative to military service. Now, there were many hopeful dreams when the National Service Corps was first started up. The first was it would pay for itself, and at least in my instance it did not, but the towns had at least wanted to have their money paid back to them and the National Service Corps wanted to get it's salary back.

But at any rate there were some advantages to this system and the first one was that it did get people out in the communities that did not have doctors before. It also made certain that the physicians didn't have an enormous financial investment in his own practice and this was a great help to those of us who had to spend thousands of dollars involved in getting through medical school. And I think it also helped push younger people into the area that could do the experiments that we are talking about, trying to revise the care systems, trying to do new things with medical practice. So it was a great help to me in my practice in that way.

Disadvantages, I think, are several. The first is that very often we weren't acquainted with the financial difficulties involved with practicing medicine. We didn't really have a realistic appraisal of what was going on, and I think when we changed over to a private practice we became acutely aware, and, unfortunately, had not spent enough time learning about those financial difficulties initially.

I think the other thing is a question of expectations in those areas where the National Service Corps has not been able to continue either because physicians wouldn't sign up again for their service or because the town couldn't support them. A lot of people's hopes were damaged and damaged prematurely, and especially if the physician was well accepted and ended up doing a good job of primary care. We are in private practice now.

I thought perhaps I could mention some of the things that I think are essential. I'm sorry I missed the hearings this morning, but perhaps I can just outline some of the things I think are very essential in a rural practice very quickly, and then just describe briefly what we are going to attempt.

First thing that's important is access to a physician either through a paramedical person or through the doctor himself, and that means decentralizing the office, getting people out in the field with the forms that we are talking about, trying to get nurse practitioners, and paramedics out of the community and out of the central health office into the community. It's essential that we try to revise the patient's education, make them aware of their own health problems and hopefully get them to take care of many of them at home. The need for preventive care has to be stressed over and over again. We need good backup in the regional hospitals. We need good backup in the medical centers. We have to have home-based resources. Today, and I think we are eventually going to try to get outreach workers to go knock on doors and find out what the needs are, not just having the nurse practitioners going into the homes taking care of those we know are sick. There is a terrible need for convalescent homes for those who don't have serious medical problems. These are called level homes and that kind of custodial care is almost nonexistent. The community has to participate in planning. It's an absolutely essential part of any program and we have been very lucky and having interested parties in a community. We did try to get the selectmen of the various small towns involved with this and we sent out letters to all of them requesting their help on certain health problems. We only got one reply back and that was from the wife of one of the selectmen who wanted to tell me about her medical problems.

Senator LEAHY. If I could interrupt. You have the National Health Service Corps just to get back to that point specifically for a moment. Only about one in five, as I understand, about one in five of the physicians remain in the area after their tour is up, about 20 percent. Does the National Health Service Corps really make any sense if we are only getting one in five? Is it a worthwhile thing or does it end up being as it was an alternative for being in Vietnam.

Dr. THOMPSON. Well, I think that as an alternative in those areas, where it works, it's very helpful because you are getting young people in those communities, in those areas where people leave and they are set up in medical care practices, it's gone. I think that in a way that's even more destructive than not to be there at all.

Senator LEAHY. If 80 percent of them are leaving, are we at a point really where we might have to say the National Health Service Corps just didn't work, and/or maybe it can't work in it's present model. Is it possible it just could not work and we are creating probably unnecessary expectations and assumptions and certainly unnecessary expense in continuing it and look for a different model. I don't know the answer.

Dr. THOMPSON. Well, I don't know the answer either, and I think I'm speaking from strength because I think we have accomplished a great deal in our town. I hope we have anyway. I think that there are many continuing offshoots of what, hopefully, we will be able to accomplish in our area. Perhaps in those areas where a National Service Corps person is left perhaps there are other forms of care that have been established that will at least help patients get access to care. If they have been involved with the nursing service and getting outreach workers in their homes, if they have been involved with other social agencies and health workers, perhaps that's one way of getting at least some rudiments of care in areas that don't have it. There are areas in the State that I think find it very difficult to support physicians and, perhaps, the National Service Corps should have been able to define those areas a little bit better before it went in. I think that at least now they're making an attempt to fit physicians with their areas and much better than they did before, and they are looking at the realistic appraisal of how well an area can support someone.

Senator LEAHY. Maybe if I could follow up and ask this question. It's one of the same questions we asked the directors in Washington when they appeared before the committee. If I could follow up with another question to Mrs. Brown. Would a National Health Service Corps with nurse practitioners make sense, nurses even developed from an existing base of nonworking registered nurses or working registered nurses in rural communities following additional training? Audit backup could be hooked up with regional hospitals or group physician practices. Or are we saying that we can't really expect a doctor to go back into those undesirable areas, but by golly, it's okay to send a nurse back there? Are we saying that or is it possible that we should be looking at something like the National Health Service Corps instead of looking just for doctors, start considering nurse practitioners?

Mrs. BROWN. I think it depends again on really what the basic needs are. If it is really those in general, and I think that is what

Dr. Thompson was focusing on is that we have to get a better handle on what is it, what are the needs? If it is those needs that really a nurse can meet with medical backup, yes. I think it makes a lot of sense.

Senator LEAHY. In a community with no medical facilities, no doctors, no nurses at all, there are going to be certain basic needs no matter what?

Mrs. BROWN. Yes.

Senator LEAHY. Would it not be dependent partly on probably the surrounding population so there will always be some needs?

Mrs. BROWN. Yes, definitely, but again, I think we need to, again, do more looking and more analysis on actually whose expertise is needed within an area, and I think we are going to run into—we have run into the same problems with a nurse going in as well as a physician, but if there are financial structures built in——

Senator LEAHY. Then you think those problems could be overcome?

Mrs. BROWN. Some of them.

Senator LEAHY. For the record, Dr. Ed Friedman.

Dr. FRIEDMAN. I think maybe the intention of the Federal Government was honest and sincere.

Senator LEAHY. We like to think it all is.

Dr. FRIEDMAN. Well, I'll leave it that way for now, but I think that maybe they're trying to do a job for which they are not suited. I don't know who knows better what a State's needs are and the areas that are in need and where the best dollar could be put than the people in the States themselves. Now, I'm not saying that the medical school should have this responsibility or a group of people—I know you don't like that, Bill. I get a little bit upset with the Federal Government trying to put their money where they think it's needed and they didn't even ask me if I knew where it's needed. I worry about people like Dr. Thompson who's up there in a very area of need coming here, shaking the bushes, offering a service and then leaving when his time is up. I'd rather he never was up there at all and we didn't hurt those people and give them a bunch of paper promises that we couldn't live up to. I'm very happy he's staying there, and if there is anything I can do to keep him there, I will. The point is there are too many areas around this whole country that are being tampered with, the bushes are being shaken, and no one is picking up the berries.

Senator LEAHY. Does that mean we have to get away from categorical type of programs.

Dr. FRIEDMAN. No. I'm saying that I think we need the money, but I think they ought to let the States have some input into the operation of these programs and designing how they should be run and where they should be located and what should we do about making sure there is some continuity. I don't think they can do it at the Federal level the way it's designed now. The National Health Service is compulsory service. Doctors are being sent into areas that they might not be at all interested in as a permanent community. You're not going to keep them there. I don't give a darn if you have a midnight dance every Saturday night for them. I don't think you're going to make it.

Senator LEAHY. That may be the greatest reason to leave.

Dr. FRIEDMAN. Maybe even topless nurses. I don't know what's going to do it. I'm afraid that that's not the answer.

Senator LEAHY. I think that Dr. Friedman raises a very valid point when we talk about designing these programs in Washington too often programs are designed for an average sized State. Certainly, if there is such a thing as an average sized State, States like Vermont, Wyoming, other States that have a small population, are not average. I think that we do make a mistake to think it can be designed perfectly in Washington. That's one of the reasons why the Rural Development Committee is in this business because we are looking at a different point of view.

Was there anybody else on the panel? Dr. Luginbuhl.

Dr. LUGINBUHL. In my opinion, we should be looking for a solution which gets health professionals in a community on a permanent basis. I think that the kind of relationship which develops with patients over a period of years is terribly important to quality care. If the National Health Service Corps locates people in communities and they then stay there, this is a step towards that ideal solution. On the other hand, if the National Health Service Corps' efforts result in a rotating cadre of young professionals who come for 2 years and then leave, often with a hiatus in between, then it's not a satisfactory solution at all. I believe that your figures are correct, that a very large percentage have left, and I think that we have to go back there for this basic question about how do you hold people in communities? What do you use to keep them there, and I think that the incentives are a combination of personal and economic. I think we must deal with those if we are going to come up with a permanent solution.

Senator LEAHY. And don't we also have to look at the overall questions here? Maybe even our definitions are wrong. For example, what we need for health care might not be a physician in a particular community. At least we might realize that for many of the things we now use a physician for, a physician may not even be necessary. We could certainly consider using other types of health professionals.

Dr. LUGINBUHL. I very carefully said health professional because I don't think a physician is the answer in every case. I think you want the same kind of long-term relationship between the nurse practitioner or the Medex or the physician assistant and the community. The health professional should be a permanent resident there on a long-term basis.

Senator LEAHY. Dr. Faris.

Dr. FARIS. I think one of the things that concerns me a little bit here is that we seem to be saying that perhaps people who live in small towns don't need the same kind of medical care that people in larger towns need, sort of like saying how big a town you have to have before a need can be established for a fire department. Fire burns just as hot in a small town as a large town. I think people get just as sick in a small town. I think if we are talking the level of medical care needed it's identical. What can you afford to bring to the community? How far away can you, or how close can you bring detailed medical care? Where does it fit into the network, and I think we have to again talk about what Ed Friedman was talking

about was the question of setting up networks of medical care with a lot of outreach into the less populated areas so that people can be at least contacted and then brought to the next level and the next level and next level of care.

Senator LEAHY. What about from the audience? Are there statements or questions from the audience?

Mr. DUNNE. I'd like to respond. John Dunne, Connecticut Valley Health Compact, Springfield, Vt.

I'd like to respond to the last three physicians on the panel in that the National Health Service Corps, I think, had high ideals when it started. If we could just elevate that map where people could see it I'd like to show what has happened. They had designated in the States of Vermont and New Hampshire, two physician manpower shortage areas. One of them is Coos County in New Hampshire which is not on there. One of them was in Island Pond and the other was over in Grand Isle. They asked us from the regional office if the Connecticut Valley Health Compact would assist them in designating areas which might have special needs or special problems in transportation and so forth, and, therefore, we were able by concentrating staff in those areas to designate these other areas as manpower shortage needs areas. Now, what this has done—it isn't a matter can we get a National Service Corps doctor there, but we have been able to sensitize the communities to get started like Londonderry did and form their own health council. We have got the same thing working now in Hillsboro, N.H., and in the Randolph-Rochester area of Vermont, whereby they are going to try to solve their problems using two or three physicians working in a group, using nurse practitioners and using outreach clinics, and that would not have come about, I think, if it had not been a spinoff of the National Health Service Corps' interest in redefining where the real areas of needs are.

I think our problem is the Congressional Record must be written by guys who live on the Potomac River because they don't know fiddle-dee-dee about transportation over that one mountain from Randolph to Rochester when it's 20 below and it's snowing. In the summertime it's 12 miles and in the wintertime it's 35. And you cannot go——

Senator LEAHY. I know about it.

Mr. DUNNE. OK. Those are the things that we——

Senator LEAHY. It's one of the reasons why Senator Clark and I are trying to bring these hearings out of Washington and out into the various areas.

Mr. DUNNE. I appreciate that. I think that we don't want to come down too hard on the National Health Service Corps because out of it has probably grown the whole rural health initiative.

Senator LEAHY. Do you agree though with the statements that have been made here that there can be a very real problem if you raise expectations or anticipation of whatever within a community?

Mr. DUNNE. And then drop them on their head?

Senator LEAHY. And then just drop them.

Mr. DUNNE. Yes. That's the worst thing that can happen. You better leave them alone.

Senator LEAHY. And do you also agree with the statements that have been made here that whether it's a physician, a nurse practitioner, or whatever, that ideally it is somebody who maintains connections, long-term connections with that community?

Mr. DUNNE. Yes. And I think it cannot be just a solo thing. I think it has to grow out of a system and that's what Dr. Lantman was talking about this morning, planning. You have to plan first and then develop a system.

Senator LEAHY. Did anybody on the panel want to respond in any way? I'll go to the next person. Yes, sir.

Reverend STEARNS. Rev. Howard Stearns, executive minister of the Vermont Ecumenical Council and Bible Society. The think that strikes me about the testimony we have heard is that so many of the problems are financial ones. I wonder if it isn't necessary to raise the question of national priorities in terms of how we address problems and what those problems are. Senator, you have served on the Armed Forces Committee, and maybe we have to start raising some questions there, and I am also wondering if there is any kind of latent feeling among the medical people about national priorities in terms of what we have addressed.

Dr. LUGINBUHL. This probably is not the answer that you are looking for, but, nevertheless, I will give it.

I am very concerned about the total cost of health care as a percentage of the gross national product. It's going up steadily and I don't pretend to know what the practical limit is, but I am convinced there is a limit and that under the present system there is no mechanism of imposing that limit in a rational way. I'm also very concerned about what I think you were alluding to, the priorities between health, national defense, and environmental preservation, early childhood education, and so on. I'm very concerned about that, but I am also concerned, just in the field of health, that there is at the present time the potential for a limitless growth in expenditure and really no rational way for setting priorities within the health field. I think that has to be a matter both for national concern and local concern.

Senator LEAHY. I commend your statement. I think it is absolutely so. I think that we are finally finding there are limits to such growth and expenditure, and that such limits, I hope, will force us all whether we are at the congressional level, whether we are deans of medical schools, practitioners, medicine and any area forces us all to look at just what methods we are using now and what ones can we no longer afford to use, what ones are there only because they are possible, but not necessarily whether they are good and realize the limits whether it's under a national health care plan or anything else. There are all limits.

We have talked throughout this what happens with the National Health Service Corps and why so many people left. Dr. Thompson stayed: why did you stay, Dr. Thompson?

Dr. THOMPSON. Well, I think the first reason that Dr. Luginbuhl also mentioned is that I'm from a small town and throughout my education I have always decided that I was going to be in a small town. That's been a prelude to my whole educational experience. I

think it's very difficult often for people from the city to go to a rural area. I think it will always be that way especially given the climates of the small town. I think probably if we are going to look for people we are going to have to look for people from those rural areas. I think that my professional experience was excellent. I have good backup in a local hospital. I have good ties with other physicians in the area. I have good ties with the University of Vermont, and I find all those things rewarding and helpful. The practice itself has been rewarding in the town because I was very well received from the first day, and I've had a good relationship with most of my patients. My practice grew very rapidly so that I was always busy and doing stuff that I enjoyed. I enjoy outdoor recreation and other things available in a rural area. I think those are all factors involved. In complex, I'm not so sure how long I'm going to stay either, and I don't think anybody can make a final decision. My further education is of primary importance and establishing some kind of relationship with the medical center that will allow me to do that in the context of my practice. It's something I'm going to have to explore over the next few years. I think that that's staying and staying the way I'm going now may be——

Senator LEAHY. If you want to explore that further education aren't you running into the problem that Dr. Faris talked about, having somebody who can cover for you in the real sense?

Dr. THOMPSON. Well, I have someone who can cover for me, and I can never—mentioned that I liked the idea of a solo practitioner. I could never practice medicine that way. I have another partner and we cover each other completely so there is not that problem. I assume that once the other general practitioner in town who is older retires, once he retires then we will have a third person. And I think that's almost the idea of the kind of our management, especially if we start using more paramedical people. Let me mention one more thing, and that is that we keep mentioning money, and I can't emphasize enough how difficult it is for young people to go into practice. The amount of money involved in investing in a new building and equipment is extraordinary, and I know several physicians who have opened their own practice who are about to fold, and it's a very, very difficult situation for them.

The second thing is the malpractice crisis. You only hear about the neurosurgeons and the orthopedists who are being affected by it. The two of us have to pay $3,000 a year in malpractice money, and it's going to double next year. And we have also been told by Blue Shield that it would be very difficult to pass that on to the patients. It's an extraordinary burden, and it's one that is going to get worse as time goes on. In fact, covering our paramedical help may be very difficult as well, although that's something that has to be considered.

Senator LEAHY. Thank you.

I'm going to take another question from the audience here and also during the same time if anybody on the Interact stations have questions, please let us know.

Mr. GALBRAITH. Peter Galbraith of Burlington. I'd like to just comment on what Dr. Friedman said about the National Health Service Corps, about "local people know best." My experience with

the National Health Service Corps is with a dental facility in Addison County. We have worked with them a number of years ago, and my understanding of the law is that local people have to approve a new facility. So it's not the Federal Government mandating a dental facility will be in Addison County. There is provision in the law for local input, and the other issue that was brought up about why did National Health Service Corps professionals leave the area? Again, in my limited experience, I'm not convinced that the local professional community is always supportive to the point that it would encourage a professional to stay in the area.

Senator LEAHY. Anybody care to——

Dr. FRIEDMAN. I think we could excite more, or at least interest more medical students into the National Service Corps early in their medical school training if they thought for 1 minute they would be allowed to go to the areas they'd like to go to. Many Vermonters would like to stay in Vermont, and be supported, and thereby, they have their educational help and help opening their office. They are going back into a community that they'd like to go back into. We have some students from Maine I'm sure could be enticed to stay in Maine, if they could be reassured that the investment that they are making in time and the Government's investment in them in money could be mutually of benefit to all.

Senator LEAHY. Are there other questions? Yes, sir.

Mr. PATTERSON. I'm William Patterson, a fourth year medical student. I want to make a short observation about how our society decides to meet its health care needs. Several speakers have suggested increasing the economic return of rural physicians is a valid way of getting our health care needs. It seems to me this is short sighted for two reasons: one is Senator Clark's opening statement. He pointed out the financial and economic gap that is frequently so acute in rural areas, and I think that to increase that gap is short sighted. Second, I think that if we have physicians who—and this applies not only to rural areas—are practicing for increased monetary return instead of the rewards that were so well verbalized by Dr. Faris and Dr. Thompson that we will get doctors whose commitment would be self serving and unreliable instead of patient and community oriented.

Dr. FARIS. I'd like to respond a little to that. I agree that most of us would like to be practicing because we love to practice medicine and we like to get paid for it because we like to eat, but I think we should bring out the point that the cheapest kind of medical care available, the least expensive kind of medical care available that a patient can get is that of a single physician in his office. That is the least expensive, and as you add these new facilities to it it becomes more expensive. When you get into the hospital it becomes extremely expensive. And I think from an economic standpoint we can save money by encouraging ambulatory services and by increasing the ability of a physician to practice medicine in an office, a group, and the ability of the patient to receive more comprehensive medical care in that group. Now, this is my feeling about the economics of it is that so many of our third-party payers are geared to paying full cost in the hospital and paying very much less than full cost for that

ambulatory care, so from the very standpoint of the patient's ability to pay you sometimes have to use a hospital facility because he cannot afford to have this same care rendered in an ambulatory setting whereas his insurance or whatever he has will cover him in a hospital setting.

Senator LEAHY. Dr. Luginbuhl.

Dr. LUGINBUHL. Basically, I'd just like to reinforce the same point. I tried to be very careful and say "the relative financial rewards." Now, this doesn't mean that you are necessarily going to spend more money on the system or pay more money in the rural community. It may simply mean that you are going to readjust your payment schedules to favor ambulatory care, to discourage hospitalization, that you are going to pay the specialist less of the health care dollar. I also tried to emphasize that there are other attractions in rural areas, and that these need to be maximized. I think that it's the total picture which is presented to the graduate and not just the dollar. I do think the dollar is important, but I certainly do not want to leave the impression that I feel this is the only factor and that the way to deal with this is by paying more money.

Senator LEAHY. One more question from someone in the audience.

Ms. HOFFMAN. Martha Hoffman, UVM nursing student. I was a little concerned with one of Dr. Friedman's remarks about the definition of a nurse practitioner as a physician's extender. I think that not only financial rewards as incentives for a nurse practitioner to go into the community are going to have to be considered. For instance a different definition of nursing as not only a physician's extender, but letting her practice her capabilities of providing physical and mental and emotional care as was mentioned earlier. I think there are a lot of definitions that have to be cleared up, difference between many doctors and practitioners, and I think only through fulfilling your role as you see it, whether doctor or nurse, is optimum functioning going to be able to be accomplished.

Dr. FRIEDMAN. I completely agree with you. I didn't mean to state it in that way. I thought I did say, Janet, that they are working in the capacity for which they were trained, so that a physician could be spared in that area. I did not say that they were a substitute or minidoctor or supernurse. I think they are all supernurses. I don't think we have exploited the technical skill or the medical knowledge of our nurses. I think we have made them pill pushers and bed pan pushers, which I think that is wrong. I think I could be the first one to have said you should be given your rightful place in society, and I'm for you. OK?

Senator LEAHY. I want to say that my wife who is a registered nurse agrees with you on that.

Dr. FRIEDMAN. I said that without knowing that.

Senator LEAHY. If there are no other questions from our Interact audience then I will on that note end this panel. Again, though, I would emphasize, as I did this morning, we have a lot of areas which obviously we haven't covered and could not if we stayed here for a week. I appreciate very much the time and effort all five members of the panel put in. I'm going to have further questions I may be writing to you on. The record will stay open again as with all other panel discussions we have today. If any of you have some comments

that you feel you haven't had a chance to make, don't hesitate to write me at the U.S. Senate in Washington and they will be made part of the record. We do want your comments if there are areas where you disagree with what has been said or areas where you want to express agreement. Please do so. That's the purpose for having these hearings back here in this State and in the other States rather than requiring people to go to Washington so that we get away from the view of the Potomac River as some of you pointed out. Thank you.

[Whereupon at 2:35 p.m. the subcommittee recessed to reconvene at 3 p.m.]

Senator LEAHY. If we could start with the third and next to the last panel of the day. We will again follow the same routine as before, and I'll ask for extremely brief statements on a very complicated subject from our panelists. They will discuss how various institutions such as medical schools, government, and hospitals and insurers fit into the existing rural health care system. After that we will open it up for questions from those in the audience as well as those in the Interact audience around the State.

The participants will be Henry Coe of the Vermont Hospital Association; Oliver Fifield, Blue Cross/Blue Shield; Ed Francisco, regional medical program director; Howard Newman, president of Dartmouth-Hitchcock Medical Center, and he will be with us via television; Dr. Tony Robbins who is the Vermont health commissioner; Patrick Robins who is a consumer, no relation to Dr. Robbins; and Dr. Henry Tufo from the Given Health Center.

Again, I'd ask each person when they talk to make sure they have been identified for the reporter, and not go too fast. She's been with us since early this morning, and I'm sure she is getting tired.

I will refer to both Dr. Robbins and Mr. Robins by their first names so it will make it a lot easier in the record. We will clean it all up afterwards and give your final record, both Dr. Robbins and Mr. Robins, appropriate and grandiloquent sounding titles.

I'll start with Henry Coe, Vermont Hospital Association. Mr. Coe.

STATEMENT OF HENRY COE, VERMONT HOSPITAL ASSOCIATION, MONTPELIER, VT.

Mr. COE. Thank you, Senator Leahy. The Vermont Hospital Association represents 17 community hospitals. They are nonprofit in Vermont. Unlike some other areas of the country we do not have proprietary profitmaking hospitals. We also represent the State Hospital at Waterbury and the Veteran's Administration Hospital in White River and the phychiatric hospital in Brattleboro, the Brattleboro Retreat.

I'll just make a few general remarks and then describe what I feel we have as an opportunity here. We have got certain strengths and weaknesses in our health system. I don't think we have any of the answers that other parts of the world, parts of the United States, or other countries don't already have. I think we were making incremental steps. I think there are people of good will working hard to try to make small gains.

Hospitals in Vermont, fortunately through history, are fairly well distributed. In only a couple of areas, St. Albans being one, do we have 2 hospitals in one town. In other areas where this has occurred in the past, Barre-Montpelier, and right here in Burlington, there were mergers. So this may occur soon in St. Albans as well where the economies of hospitals operations are greater if duplicate facilities are done away with.

The role of a hospital, and the priority that we have to have first, is acute care, the intensive episode of care. That is not to say that the others should be ignored, but that has to be the first priority. That's the role, the prime role of community hospitals. Hospitals in the State have made great efforts, however, to link themselves, their concerns, their thrust with other community health professionals. I think perhaps that if not the majority, certainly a large number of home health programs, are actually housed in hospital settings. The same with emergency medical services. There are education classes in every hospital most nights of the week in Vermont where not only professionals but community people can come in and receive health education. We have to do more of this.

On the other end there are links with third level nursing homes. Third level comes to mind because in Vermont if we have any glaring weakness in the whole health system I feel it's this, the lack of sufficient custodial care facilities in the State. If we don't have sufficient room there it then backs up through the second level nursing home and into the intensive hospital setting. I think that we could maximize our public investment dollar both Federal and State if we would encourage the building of custodial care institutions and in a nonprofit manner. Vernon Green down in the southeastern corner of the State is one of the very best examples, and I think the initial funding from that came from the Farmers Home Administration program.

The staff man on the subcommittee here told me that not a single application is currently pending before that committee in Vermont yet we have a sore need for it.

Senator LEAHY. This is one of the concerns that we have. In a community of 10,000 population and under there are 5 percent loans available from Farmers Home Administration for construction of clinics and other medical facilities. But, as I understand it, there aren't any applications for such loans presently, is that right, Jim?

Mr. GILTMIER. Not pending in Vermont.

Senator LEAHY. Not pending in Vermont.

Mr. COE. The care of the long term, the need for long-term care, particularly the elderly, is acute. I think that we have to encourage continuity of reimbursement. I am thinking of home health services. The way the limited pot is now, as I understand it, is that in order for home health services to be reimbursed, they have to show that the patient would be discharged one day earlier than would otherwise be the case. I don't know that that's a sound way to go because we have utilization review occurring in hospitals right now, which is looking at the appropriateness of the care being given and the length of stay. And this is a very, very thorough and sound review happening in every community hospital, and I think now it's ironic with the malpractice crisis. I think the quality of care in hospitals,

at least, where these utilization review programs are going on and our care review mechanisms quality assurance programs are occurring, some promoted from the Federal level is better now. These are good programs and are better now than ever before.

If I could talk a minute about the malpractice problem. Hospitals in Vermont right now are paying on the average of $1,000 per bed per year for their premiums, if they can get insurance at all. We have got a crisis here and some people are saying that might rise to $2,000 per year per bed next year. What does that mean to the patient? It means approximately $3 on the average that hospitals have had to increase their room rates. In some cases this is as high as $6 to $7 a hospital day that you are paying for just a malpractice premium. The costs of defensive medicine aren't even computed in that and probably are larger, in tests ordered and given that are really not medically necessary. What do we do about it? I don't know that the free market, in trying to set up State legislative strictures and controls, will get at it. I think the hospital, ironically, has an opportunity to help improve quality of care by encouraging practices, and in some cases, by employing directly more physicians. The hospital then would become the protector of the physician and pay his insurance premium. They would also be able to be more rigid about the quality of care being given in that institution because he's their direct employee. If it's an affiliated group practice which hospitals are promoting in Bennington and Newport and Randolph, and other places, the hospital can encourage a unitary record system, can require that it be given if the hospital has a stake in that group practice.

I think that this is the direction we see things going because whenever the doctor is sued the hospital is also sued as a codefendant, whether the hospital has a direct liability or not. And doctors are saying now that they are planning to go without malpractice coverage because their rates are excessive. This may then mean that the hospital has to become more directly involved in the promotion and the monitoring and management of group practices.

In listening to some of your testimony today I never heard the word prepayment. In the last year four hospitals, the four largest hospitals in the State, have signed a contract with Blue Cross/Blue Shield to require that payment be made for Blue Cross/Blue Shield subscribers on a prepaid basis. This is still in the infancy stages. It has not occurred very very much elsewhere. We are looking at the experiments but we think that in this way it gets away from the open ended cost reimbursement aspect and puts some kind of a peg—what it really does is peg payment to predicted utilization. If we are looking at the whole system I really feel we have to move to a system of management control where the managers, be they the hospital or be they a nonprofit corporation has the opportunity to control the behavior of physicians, home health agencies, all the health services in a community. If you think of a HMO model, this is really the conceptual thing that we are thinking of, where you have a group of professionals who come together and agree to provide x number of services, comprehensive services to a given or defined population. And the fourth element is at a prepaid rate of cost. I think with the gaps in financing we have an awful lot of

people that fall out of the system, aren't able to afford care no matter what kind of care. Even home health care they can't afford to say nothing of hospital care. If the State with its tax dollar and if the private insurers with their dollars could lump, somehow, if we could lump all of these payments into a common pool and then through simple calculations assign what is the per capita dollar cost to provide a minimum level of services to all of our residents and if somehow we could capture that and keep it from leaking outside of the State—we could serve our people very very well with the dollars that we are presently investing in the system. It's a conceptual look at the problem.

Senator LEAHY. We also will be putting into the record the material that you sent me earlier.* We will do the same with the statement by Mr. Fifield from Blue Cross/Blue Shield which I found, very informative.** I noted how much we have gone up in semiprivate rooms and in just 10 years as you have pointed out in your statement. The Georgetown Hospital in Washington, D.C., is now, with a semiprivate room at the rate of $170 a day largely based on malpractice costs.

Our next witness is Oliver Fifield, Blue Cross/Blue Shield.

STATEMENT OF OLIVER R. FIFIELD, PRESIDENT, BLUE CROSS/BLUE SHIELD, CONCORD, N.H.

Mr. FIFIELD. Thank you, Senator Leahy. In view of—Henry told me he was only going to make a few comments. He pretty much covered his ground and my ground, but I will try to be very brief and right to the point with a couple of specific examples. They do not speak directly to home health type of care, but perhaps some direction ought to be pointed here in terms of some of the other cost problems.

Basically, obviously, Blue Cross and Blue Shield are interested in dollars. That's our business financing and helping people finance health care. I think that these two examples will point out a number of things, but in particular they are aimed at the captive audience that's voluntarily here today—that's Senator Leahy and his staff. Hopefully, this is an opportunity to speak directly to our Federal Government, and I don't, I hope this won't appear to be critical. These are offered as constructive criticism and they are directed toward a couple of our Federal programs, namely, medicare and medicaid.

Senator LEAHY. Believe it or not, we do occasionally hear, even in Washington, certain criticisms that are made in the Federal Government, but we don't believe them, of course, but we hear they are made.

Mr. FIFIELD. I didn't intend to do this, but since there is a blackboard here can I just use it briefly?

Senator LEAHY. Sure.

Mr. FIFIELD. What I wanted to talk about or point out, and this is a real problem in Vermont. It's particularly a problem for small rural hospitals, and it has what I think is quite a significant impact

*See p. 262.
**See p. 112.

on their finances. This biograph represents the State of Vermont and in 1976 hospitals will provide $82 million in Vermont of service. Somehow that's going to be paid for. Our budgets show that medicare will, in fact, purchase $28 million of that $82 million. The State of Vermont's medicaid program will buy another $8.2 million, roughly 44 percent of the hospital service provided in the State. Blue Cross will pick up about 30 percent, about $25 million, and that leaves the commercial carrier, the self-paid person and those who are unable to pay. The point of my little illustration here is that under the present reimbursement system it's unfortunate that the Federal Government and, therefore, also the State medicaid program which has to follow the same reimbursement guidelines do not recognize what will be $1.4 million of bad debts in Vermont hospitals in 1976.

I won't try to twist the knife here, Senator Leahy, but the fact is that our Federal Government, our Government, the one we support with our taxes, is buying and using the facilities of hospitals that are owned by the people in Vermont and yet in that reimbursement system ignore their responsibility to meet some part of those bad debts. The effect is that those debts fall in here. That $1.4 represents 1.7 percent and all of a sudden becomes 3.4 percent for this small group of people.

The other illustration that I have—we hope, Senator Leahy, that perhaps you could gently urge the people in the Bureau of Health Insurance. I have already urged them a number of times about this particular thing, but I think that, in fact, that when the Government designs a program they should, in fact, pick up all of the costs that are related to it, and certainly, in this case $1,400,000 is being ignored.

The other example I wanted to point to and this is only one example, but I think it's one that provides an opportunity both for the Federal Government and for the free enterprise system, or the private sector to do something about and perhaps you will wonder why we haven't, but it is a problem, and that concerns laboratory work, particularly outpatient laboratory work. In the State of Vermont, as Mr. Coe mentioned, there are 17 hospitals. Each one of those hospitals are required to keep a full-time laboratory facility. That lab has to be open, available, and ready to do business on a 24-hour-a-day basis. What's happening now is that many of the laboratory procedures that are done in physicians offices are being shipped out to private labs on the basis that somehow this is cheaper. Well, it does appear to be cheaper on the price list because obviously a commercial lab that opens at 8 in the morning and closes at 5 at night and does a large volume of business with automated lab equipment can do routine tests cheaper than a hospital. We tried to attack this problem 2½ years ago here in Burlington. I say "we." Basically, the medical center hospital tried by establishing two price lists, one for outpatient types of laboratory service, the other for inpatient recognizing there was a differential in cost, and this, frankly, was an attempt to meet the competition. That whole scheme went down the drain, basically, because of a regulation under medicare which said that medicare, if anybody put out two prices, obviously would only pay the lowest. In this particular case unfortunate, but a Gov-

ernment regulation which I'm sure had good basis of fact and probably in a large city would be accommodated, but in a situation in Vermont where there was an opportunity to, in fact, save some money it was impossible to do this right here in Burlington.

Senator LEAHY. Was anybody made aware of that fact?

Mr. FIFIELD. Oh, very much, yes.

Senator LEAHY. They would not grant a waiver?

Mr. FIFIELD. No, they would not.

Senator LEAHY. The Federal Government, of course, is subsidizing health care and health research to the tune of almost $35 billion a year, or at least that was the cost last year. You can see their reasons in wanting to get the lowest price, but I also grow equally concerned when you get into bureaucratic logjams.

Mr. FIFIELD. I know, we know that some of that is probably going to be inevitable, but I think this was one situation and it still is a possibility where something can be done to make better use of those laboratory facilities that are already here in Vermont, and, in fact, have to stay here in each of the hospitals.

In summary, I'd simply say that, and I say this in spite of a couple of criticisms, that I do believe that the private sector and the Government programs are working well together in Vermont. I think one thing much more could be accomplished by more flexibility on the part of the Federal Government, and by more imagination by the private sector. Thank you very much.

Senator LEAHY. Thank you. I, just to follow up a little bit on that if I could. What's the possibility of reimbursing, say, a nurse practitioner who's providing service when the physician is not physically on site? And in Blue Cross and Blue Shield that cannot be done now nor can it under most of the Federal programs either, but what's the possibility of that being changed?

Mr. FIFIELD. Well, there is a program under Blue Cross, and I would be the first to admit this was started a couple of years ago, where we would provide benefits after a person had been hospitalized in a general hospital for a nurse practitioner in their home. Frankly, we had very tough rules and guidelines around that and very, very little use was made of that. We have just met with the representatives of the home health agencies in both States and have relaxed those as of January 1 of this year. They are still not relaxed to the point where we are going to pay for all of the home health services that may be provided, but we will try to pay for those services where if it were not available hospitalization would be necessary; when it's possible to use the services of a professional nurse in the home setting, Blue Cross will pay for those.

Senator LEAHY. But prior to a hospitalization situation?

Mr. FIFIELD. We have also, at least on a 6-month basis, we are going to waive the need for hospitalization and try to evaluate these on a case by case basis.

Senator LEAHY. It would be very interesting to see the results of that because I can't help but feel that in the way we end up sometimes making people seek out the most expensive alternative of care, and I would hope that we can develop through the flexibilities so that that won't happen. I also realize, of course, the controlling element the Federal Government has, but that you have to have in

seeing where that money is being spent, and it's easier to control it in the hospital situation. But I think that it may bring us to the most expensive alternative as a result in some occasions.

Mr. FIFIELD. Excuse me, Senator, but there is a significant amount of money right now flowing into Vermont home health agencies.

Senator LEAHY. I understand.

Mr. FIFIELD. Under the Federal title 18 program.

Senator LEAHY. I understand. But we also do not have the ability to, in most situations, to reimburse nurse practitioners for the time and medical health——

A VOICE FROM AUDIENCE. I suspect that Betsy Davis would like to comment on legislation which is pending in the Vermont Legislature.

Senator LEAHY. Of course, my concern is the Federal legislation, but I'm sure that—go ahead.

Ms. DAVIS. I think you are addressing two separate issues, one in relationship to the home care program, and it should be stated that under medicare less than—as we said for medicaid—less than 1 percent of the total medicare dollar goes to support home health services throughout the country, not only in this State. I think Senator Leahy's original question was in relationship to the nurse practitioners functioning in ambulatory health centers where Blue Cross/Blue Shield presently requires a physician located physically onsite in order to bill private insurance programs and we are very interested in that issue.

Senator LEAHY. Mr. Fifield, your advance testimony said that Blue Cross/Blue Shield returns 93 cents for health services for every subscriber's dollar. Now, is that a, that 93 cents, does that include both group and individual policies?

Mr. FIFIELD. Yes; it does.

Senator LEAHY. Do you know offhand how that breaks down between group and individuals?

Mr. FIFIELD Well, I think the best way——

Senator LEAHY. Roughly.

Mr. FIFIELD. It would be roughly 80 percent of our subscribers are in groups and 20 percent are in what we call nongroup people.

Senator LEAHY. You get a higher return of money back to health services in group policies?

Mr. FIFIELD. Well, we don't actually keep track of it that way, but I'm sure there is more efficiency in the administrative handling where people are in groups, but, no—well, let me answer that another way, too. The loss ratio on what people pay Blue Cross/Blue Shield versus what they get back is the same for both nongroup and group.

Senator LEAHY. Thank you.

The next witness is Ed Francisco, the regional medical program director. Mr. Francisco?

STATEMENT OF EDGAR W. FRANCISCO, DIRECTOR, REGIONAL MEDICAL PROGRAM, BURLINGTON, VT.

Mr. FRANCISCO. Thank you very much.

I'd like to thank the Senate Committee on Agriculture and Forestry for holding this hearing in Vermont and for inviting our organization to participate.

I think that I would like to urge Congress to devote substantial attention in the next several years to three major areas.

The first is further development and understanding of the organization and management of the relatively small production unit of which several examples were described early this morning.

The second, a considerable investment in applied research and development in communications systems which will make these small production units viable and which will move the health care system out of the age of individualism and into the age—into the industrial age.

Third, major attention to the reimbursement system with primary attention being given to building into that reimbursement system the cost of control mechanisms and the quality of insurance mechanisms, building those mechanisms directly into the reimbursement system.

I feel a little out of place on this panel because I represent the only organization that is represented here which is going out of business and will not be participating in the next development efforts here or elsewhere. The regional medical program will be closing in the next several months, so perhaps I should take a moment to review some of the things that have happened in the past that we have participated in and what I think that means for the future.

The regional medical program was created by Congress as a Federal program in response to a correct perception that there was a need at that time for a major effort, a major national effort to transfer new medical technology from institutes and medical centers to the community. We are not a planning organization. We are an applied development organization. We were set up having been given the priorities, the initial priorities. The initial priorities were in heart, cancer, stroke, and several related major disease categories. In our first years of operation we established across the country regionwide or statewide coronary care systems, coronary care units, training programs, and standards for coronary care. We demonstrated statewide respiratory computer networks in Vermont. That meant that where it had been built into the Vermont Lung Center. Vermont can be very proud of having received the first major lung center established in the Nation under new grants for that purpose. We developed standards and protocols for cancer and developed these through a number of cancer subcommittees and this work has been incorporated now in the Vermont Cancer Center which is expanding on these earlier efforts.

Then in 1973 the Federal administration impounded our MD funds, and although a year later the impoundment was overturned by the courts the effect of that impoundment was to substantially change the direction of that effort. It's simply not possible to impound moneys, turn off spigots and turn them on a year later and expect a major development capability to be still in place. So we shifted the emphasis of the program into providing funding to support what we thought to be the major promising dimensions of the future in the State. We provided support for the nurse practitioner program at the university, for workshops in the problem oriented medical record for nurses. We developed a support for what I think is a very interesting major model of a comprehensive child care cen-

70-560—76——5

ter in St. Johnsbury and which the home health agency provided the enthusiasm and the initiatives and with RMP funds demonstrated that a nurse practitioner with social workers and outreach workers can provide comprehensive primary care in a rural area, if there is a backup from a physician.

Very often where there have been exciting new dimensions in the State the home health agencies have been at the back of it or been involved in it. We have provided some support, I notice, to all of the groups on the podium this morning demonstrating the primary care models with the exception of Dr. Lantman's center, which, of course, is a good example of what several physicians can do without any public funding if they are located in an area that is not too rural.

We have recently directed considerable effort to demonstrating the value of a concept of a community health council. The council in Grand Isle receives support from us and has grown into positions that they have in developing a community health center there.

Now, I think one of the major things that we have done, related to my second interest in a communications system, has been the 2 years of full funding to the Addison County Health Council. I think that the things they are developing for a countywide health information system has great promise and requires and deserves an extensive amount of continued development. The background on that, in my thinking, is why is that so important? Well, the health care industry, I think, is primarily an information industry. Most of the problems we have and much of the expense that we have are related to the fact that a major industry which is an information industry is not using the modern tools of communication and the effects of this are profound in terms of the next development in health care. We have talked about the individual production units, of sense of isolation, the problems of linkages to the medical centers. Much of this is related to the lack of utilizing the information industry that we have available to us. Of course, the first step in that is to develop and get acceptance for a readable, useable, and logical medical record. Next step is to tie this in to a communications system which allows the rural health center access to the best diagnostic capabilities and the best medical center in the country. And when that happens a lot of the problems we are talking about, I think, will begin to disappear.

While RMP was created to help transmit medical knowledge and new techniques I think, that related to medical development and medical research, I think the next major way in applying for search and development has got to be in the information industry and taking techniques that are well known, well understood, and used in other industries and getting those techniques applied to the health field. This will provide the major linkages that we need and will provide the basis for quality control. It will provide the basis for measuring management effectiveness in the basic production units, provide the basis for quality for cost control, and finally, it will provide the basic information we need for decisionmaking about capital investments.

So, the major emphasis, I think, the need for the future is, first of all, a continuation of interest in these production models. However, the basic production models have been well demonstrated now.

There are a variety of them that are appropriate in most settings. I don't think we need to do much more basic experimentation in those models. The models are available. What's needed now is to demonstrate them and to show them and describe them and such and such as this. We have adequate knowledge to go with the models that are available.

Senator LEAHY. Do you have a certain feeling of frustration as some of us have that we continue to plan and plan, and we don't do, we don't actually do enough of just getting out and providing the service?

Mr. FRANCISCO. That's right. In my opinion they need to do much more. Of course, I quote this out of context and this sounds terrible, but the need for planning and the way we thought about planning in the past, the need for that is past. We have the technology. We know how to put in place community health centers that can provide adequate health care. Now, the planning occurs when those efforts get internalized into the production unit. This is an entirely different thing from planning as we have talked about it in the past.

Senator LEAHY. I hope that we don't get so hung up on the question of planning, however necessary some of it is, that all we do is have an awful lot of people looking for health care out there and all they could get is a fantastic journal of articles on planning. I can't help but feel that we have certain rural residents who are remote from certain kinds of medical care who are, for example, paying into medicare, but they are not getting back what they have paid in. Is that not a fact?

Mr. FRANCISCO. That is right. Vermont is a net loser under those programs because unless the facilities are in place, of course, the funds that are collected here go out of the State.

Senator LEAHY. Is the general agreement of the talent on that proposition?

Dr. ROBBINS. We are not exclusive about the kinds of income transfers that occur through Blue Cross, through medicaid, through medicare, and it's very much worth looking at that because usually it's poor rural areas subsidizing medical care for richer, urban areas including Burlington.

Mr. FRANCISCO. That's been well documented as one of the effects of medicare and medicaid, medicare programs. It's been a net outflow from that.

I agree with Dr. Robbins.

Senator LEAHY. Mr. Francisco agrees with Dr. Robbins on that point, on the point that has been well documented, that there is that lack of service for the amount that is paid into the medicare.

Mr. FRANCISCO. Attention on the production units and models that we have to develop and attention on the communication linkages to make those models viable and a major change—once you think about the model in place the major changes that have to occur in the reimbursement system provide adequate ongoing long-term support to this unit that allows the production unit to make labored substitutes interchangeably and effectively, whole lists of things like that that obviously must come from the reimbursement system to support that kind of a——

Senator LEAHY. Our next witness will be Howard Newman who is the president of the Dartmouth-Hitchcock Medical Center, and Mr. Newman has held that position for about a year and a half. As I recall, before he was Commissioner of Medical Services Administration of HEW in Washington, and I would extend to you, Mr. Newman, a welcome and also as I must apologize to the others for Senator Clark that he is not here, but the way he is feeling today with the flu I think he would much prefer to be here for these hearings.

Can you hear us okay here? We can't hear Mr. Newman.

STATEMENT OF HOWARD N. NEWMAN, PRESIDENT, DARTMOUTH-HITCHCOCK MEDICAL CENTER, HANOVER, N.H.

Mr. NEWMAN. We appreciate the opportunity to participate in the hearings today and, with most of my family home with the flu, I can really appreciate your comments about Senator Clark.

We appreciate your interest and support in this subject of rural health care.

I would add a word of appreciation to the people associated with the Interact TV system for enabling me to participate today in the hearings through the wonders of modern technology. I think they should be congratulated as well.

Senator LEAHY. I might say the same.

Mr. NEWMAN. I am sitting in a conference room in the Mary Hitchcock Memorial Hospital. If I were to go out of the door on my left and walk down the hall I could visit with some of the 400 patients who are in the hospital today. If I were to do that I might very well run into several of the 150 members of the house staff who work here, interns, residents, and fellows. Further, I'd undoubtedly meet some of the medical students whose clinical experience is gained primarily in this hospital and in the Veteran's Hospital in White River Junction 5 miles away. If I were to take that walk I would also undoubtedly meet members of the practice group segment of the Dartmouth-Hitchcock Medical Center—in addition to the Hitchcock Hospital and the Dartmouth Medical School to which I have already referred—the Hitchcock Clinic, a large specialty practice group. I would meet members of the clinic in the process of caring for patients and participating in the graduate education programs in the medical center. If I were to walk a bit further down the hall I might look out of the window and be able to see the construction that is currently going on for the phase II of the Norris Cotton Cancer Center, and if I were to walk a bit further than that I could see our mental health center, probably the largest one in the north country. I have given you a quick tour of the premises for the purpose of making the one point that I would like to limit myself to in these brief opening remarks, and that is that while I agree completely with the concern that has been expressed throughout the day in these hearings for the need to provide access to primary health care. In this medical center, we are concerned about access to primary health care, as well as the education of professionals in the provision of primary health care. We are, however, also concerned with the provision of that level of specialized care which must also be provided in any health system, rural, urban, or any other. I would hope that we would not lose sight of the

fact that while we are concerning ourselves with the development of an appropriate system of health care in rural New England that we consider that this medical center and the medical center located in Burlington together must become very positive forces in the development of a rational health care system in this region. We at the Dartmouth-Hitchcock Medical Center have formed a confederation of institutions, which I have described a moment ago, for the purpose of providing such leadership, and we look forward in the months and years ahead to working with many of the people who have participated in the hearings today and with our Federal and State legislators in the hopes that a more rational system may indeed be developed. Thank you very much.

Senator LEAHY. Thank you.

I'd like to ask Mr. Newman and if I could, with the staff and with the equipment that you have, do you have outreach programs, as such, from the hospital?

Mr. NEWMAN. There are a number of programs which are currently underway in our—we have a department of community management at the medical school under new and very bright and aggressive leadership concerning itself with both the development of the teaching community and with the need for developing outreach services in this community. In addition to that in the clinical departments, notably the maternal and child health and psychiatry, there are currently underway programs relating directly to smaller communities in the region.

One final note, there is a corporate entity within this center, the Hitchcock Foundation, which is currently the recipient of a grant for the study of the feasibility of creating a health maintenance organization in this area, so that we are actively concerning ourselves with outreach programs and there are a number currently underway.

Senator LEAHY. Thank you.

I'm going to call a 5-minute break for purposes of the stenographer who's been taking this all down all day.

I know, Mr. Newman, you have been listening to a lot of our discussion. If you can I'd like to have you hold by for the rest of the panel discussion because I'd like to give everybody a chance on the panel to discuss this thing back and forth also.

[A brief recess was taken.]

Senator LEAHY. Our next witness will be Dr. Tony Robbins, Vermont health commissioner, and, Dr. Robbins, please feel free.

STATEMENT OF DR. ANTHONY ROBBINS, COMMISSIONER, VERMONT HEALTH DEPARTMENT, BURLINGTON, VT.

Dr. ROBBINS. I am not here representing the State of Vermont. I think in the best of circumstances it would be impossible for the health commissioner to come and represent the State of Vermont, but considering what is happening to what little progressive health legislation before the legislature this year, I certainly can't come and act as if I speak for the policymakers of this State.

I think what you have heard if I can maybe unfairly summarize it up to now is a very large number of wonderful people who are doing great things telling you one way or another that we know how to do

it. We know how to do various parts of putting medical care together and that each and every one of these projects and programs is seeking support, seeking a way to do it better and to put it all together.

Before I try to present to you my own ideas on what an organizing principle would look like for rural medical care. I wanted to commend to you—I think it may be too much to put into the record—but you should be aware that in 1930 as part of the national, the Committee on the Cost of Medical Care, there was a Vermont survey done, a survey of the State and intensive surveys in Franklin and Orange County. The problems that they found with rural health at that time really haven't changed a hell of a lot, and it's very edifying to go back over that, and except for the fact that there were only 240 miles of concrete highway in 1930 the medical care problems don't look very different. At the same time, in 1931, the Vermont Commission on Country Life also presented as part of its program for the future called "Rural Vermont" by 200 Vermonters. They presented some ideas about how to solve rural health problems, and they are amazingly up to date and don't need much changing in order to fit into the current scene.

But let me try to present to you what is not really a Vermont solution, but I guess I don't get the opportunity to address the U.S. Congress or part of it very often, and what I wanted to suggest is a solution that may be of some national use.

Is it possible that our Nation which spends $547 per capita in the health industry cannot provide good medical care? The health sector of our economy has grown rapidly and unhaltingly. We now spend over $100 billion annually on health, over 8 percent of the gross national product. There are almost 5 million employees in the health industry. Yet, despite our country's affluence and its mammoth expenditures on medical care, rural areas suffer. There are just not enough resources well enough organized to provide good care, and the question is, can the rural problems be solved?

This paper argues that all of the basic ingredients are present, but a new organizing principle is needed. We need to create a way for rural communities to join a national rural health service funded by the U.S. Government. Technology abounds. Communications technology can provide rural areas with instantaneous help over long distances. Two-way television is a good example. Geographically dispersed elements of medical care can be held together electronically. New kinds of manpower—technicians, physician's assistants, nurse practitioners—can be trained to fill almost any role in delivering medical care. Teams have been assembled, often proving far more effective than individual practitioners. Capital funds to construct offices, clinics, health centers and hospitals in rural areas have been available even when it was impossible to attract physicians. And transportation, the consistently most difficult problem in rural health, seems to be yielding to some innovative approaches.

But all the energy that has gone into research and demonstration projects in rural health is not enough. Rural areas cannot compete with the Nation's cities; increased expenditures have only widened the gap between urban and rural.

Congress is moving on two fronts to deal with medical care problems in America, planning and regulation programs and national

health insurance. These will not do enough for rural people. They are not likely to succeed in attracting physicians to rural practice. The National Health Planning and Resource Development Act of 1975 is intended to reduce expenditures on medical care, or at least to slow and rationalize growth. The act will lead to rules to deter unnecessary costs, but the new program will have little clout to encourage services where they are now lacking.

The history of national health insurance—both our experience with medicare and medicaid and programs in the Canadian provinces—is not hopeful for rural people. Insurance pays for services that are available. It has given poor people in cities the ability to buy medical care, but where resources are scarce, insurance has been less helpful. Because it pays only the bills national health insurance is likely to further increase the disparity between the quantity of services received by city dwellers and rural Americans. What we need is a way to place the basic resources for primary care in rural areas; a dependable way for rural Americans to get medical care.

How can such a program be put into action? The Federal Government's support for health maintenance organizations and the National Health Service Corps offer some promise. Although neither works very well by itself, these Federal programs do contain essential ingredients for a stable rural health system.

Health maintenance organizations or prepaid group practices grew up in urban areas where large employee groups with good health insurance coverage found that they could save money and improve their own medical care by contracting with an organized program to provide all services. Savings occurred when group practices developed ways to give good care outside of the hospital, thus reducing expenditures on the most expensive part of medical care—hospitalization.

Most health maintenance organizations have experienced severe difficulties during their marketing and startup phase. It has been very hard to enroll enough members at the beginning to support the high staffing level that is needed to provide a full range of services. These problems are most serious in rural areas where there are no large employee groups and enrollment efforts must approach small groups or individuals. In addition, the financial incentive is often lacking as rural areas already have low rates of hospital utilization. The people of the Northeast Kingdom, for example, use hospital services less than enrollees in the Kaiser Fermanente program of northern California—one of the most successful prepaid group practices.

For the last 6 years, the National Health Service Corps has been hiring physicians, dentists, and other health professionals to make them available to communities unable to attract such help in any other way. Even after Vietnam, when a military deferment was no longer offered by the program, many dedicated young doctors have joined the Corps. These are physicians looking for stable and community oriented practices where they don't become businessmen. But neither the doctors nor the communities have been fully satisfied with the experience. In part, this is due to the rules under which the Corps has operated. Corps doctors have been expected to compete with other community resources; they must charge fees, generate income, and run conventional private practices. After the startup period, during which the Federal Government covered any losses, the new practice

was expected to survive economically and clinically in a situation that had failed to attract or hold a practicing doctor not in the Corps.

Despite the problems of health maintenance organizations and the National Health Service Corps, these two efforts could be combined effectively. A prepaid, organized program of health services and the use of Federal resources to put manpower where needed are the guts of a rural health system. What is needed now is a commitment on two levels. The Federal Government must make dollars available in rural areas. And rural communities must elect to participate in an organized rural health system.

How can rural communities choose an organized system? The experience of health maintenance organizations and the National Health Service Corps suggest that rural regions must make a stronger and more explicit commitment to their health system. It is not possible to build up a system from scattered and uncoordinated components. The period of startup is too long and the care during that time is inadequate and inefficient. There must be a tip-point, a way that a community can elect to have a complete and unified medical care system. There must be a referendum. By referendum, a rural region must be able to opt to create a unit of a National Rural Health Service. This would create a management unit like the urban prepaid group practice. It would have all of the organizational advantages that come from providing care for a defined population. It could use any of the new ideas in technology and manpower to make the services more effective or efficient. All services would be linked in a single program for all the people of the region.

Senator LEAHY. How do you determine a rural area for referendum? By the population, the geography?

Dr. ROBBINS. Senator, I really don't know. What I would like to talk about doing would be to put together some proposed legislation for a National Rural Health Service. Then take it out, have some hearings and see if we can come up with an answer to that question. There are some general ways to guess at the size that you would need to do it.

Senator LEAHY. You have States like Vermont that do not have a county form of government as such other than much more than a geographical form. You have States like New York where it's a very real form of government. Could you do it on a county basis?

Dr. ROBBINS. Ideally, you should do——

Senator LEAHY. School districts?

Dr. ROBBINS. Probably you should do it where there is some already existing political subdivision and beyond that you should do it so that it conforms in some way to a single or collection of medical service or market areas.

The purpose of the referendum more than anything else is to give us, to give the people a way to get into such system. If I may continue just long enough to try to explain what a unit of the National Rural Health Service would look like I will try to finish this up.

How can Federal legislation offer participation in a National Rural Health Service? A National Rural Health Services Act would perform two critical functions: It would combine many of the resources that now cost us $547 per capita, making a single fund available for the provision of rural medical care. It would set standards for any

region wishing to establish a unit of the National Rural Health Service.

Almost all of the money now spent on medical care is channeled through organized payment systems. Many are tax supported, medicare, medicaid, the Veterans' Administration. Others are private programs, Blue Cross, commercial health insurance, and employer health services. A smaller and smaller part of health dollars goes directly from the people to pay doctors and others for services. Out-of-pocket health expenditures now constitute less than 20 percent. Through a National Rural Health Service, the Federal Government will use the peoples' tax dollars to replace the inefficient and often duplicative payment mechanisms that now exist. Effective public health, primary care, and community hospital services are attainable for rural populations at a cost that is less than what most parts of the country are now spending on medical care all together.

Mr. LAWRENCE. Ermont Lawrence, Senator, may I ask a question of the speaker?

Senator LEAHY. I think we will let the speaker finish.

Mr. LAWRENCE. I understand. Let me just——

Senator LEAHY. We are running about 20 minutes overtime and I want all the speakers to have a chance to finish.

Mr. LAWRENCE. I'd like to know if he means the Veterans' Administration hospitals will be done away with or put into a brand new organization?

Dr. ROBBINS. I specifically didn't deal with the details of this because I think that these are problems that do need to be worked out, but the——

Senator LEAHY. Because of the——

Dr. ROBBINS. The essence of the proposal is a referendum to let a community or region opt in and then Federal financing and standard setting for a single organized medical care system for the——

Mr. LAWRENCE. You haven't answered the question.

Senator LEAHY. I will have to ask Dr. Robbins to complete the rest of his testimony.

Dr. ROBBINS. A National Rural Health Service would eliminate the fragmented financing that has discouraged adequate growth of health services in rural areas.

For each rural region seeking to establish a unit of the National Rural Health Service, the Federal law would define a set of minimum standards. It would define what is meant by rural and thus which regions of the country would be eligible to hold a referendum. It would define a minimum range of services that must be made available to the people, and define the ways in which it must be demonstrated that these services are reaching the people and having the desired effect. Probably over 99 percent of the needed services could be performed by primary care units and general hospitals.

Finally, the Federal legislation would define the governance of the regional units. Units of the National Rural Health Service would be public corporations or units of Government, and would have to demonstrate governance that is responsible to the needs of the people and accountable to the people for their performance.

This paper has offered a new solution for rural health problems. By allowing rural communities the opportunity to choose a perma-

nent, stable, effective medical care system, the Federal Government can restore equal treatment to its rural citizens; equal access to essential health care.

Senator LEAHY. The next witness is Patrick Robins in role as consumer, and he is also the president of McCauliff's here in Burlington. Patrick.

STATEMENT OF PATRICK S. ROBINS, BURLINGTON, VT.

Mr. ROBINS. It won't take me very long to say what I'd like to say, and I'd like you to know that my credentials as consumer for rural health care are certainly in question. No. 1, I live in Burlington about four blocks from the Medical Center Hospital and the medical school; No. 2, I couldn't qualify for the university health center's chap program which I helped to create; and No. 3, when I wrote to the Governor last year and asked him to serve on the statewide health care council he wrote me back and said that because I was the president of the university health center that I wasn't a consumer. So with my credentials thoroughly discredited I'd like to make a couple of remarks about things that still continue to concern me.

Mr. LAWRENCE. Senator Leahy, Senator Leahy. The young lady broke in on a speaker. May I have the privilege of breaking in on this speaker?

Senator LEAHY. No, sir.

Mr. ROBINS. I haven't said anything yet, but—why don't you wait until I say something?

Senator LEAHY. I'm sorry. I'd be perfectly willing to recognize——

Mr. LAWRENCE. My name is Ermont Lawrence. I am adjutant of the Department of Vermont Disabled American Veterans.

Senator LEAHY. Mr. Lawrence, I'll be perfectly willing to recognize you for a question once the speakers——

Mr. LAWRENCE. And I question this man's sitting there representing a rural consumer.

Senator LEAHY. Mr. Lawrence, he was invited by the U.S. Senate. It is our hearing. I'll listen to him. If you wish to take issue with anything that is said by any of them——

Mr. LAWRENCE. I do, Senator.

Senator LEAHY. When they have finished you can.

Mr. ROBINS. There are certain elements, Senator, I think, that have to be in any rural health care system if the consumer is to have any useful product from it. The university health center, 3 or 4 years ago, started a project called the Villemare Health Center in Milton and gave me an opportunity to try to deal with this problem of public governance in health care. And it still frustrates me today that the consumer—that the consumer is essentially shut out of health care in meaningful terms. That is, we still do not have a regional or a statewide approach to the problem-oriented record which will tell the consumer what he can expect to get from a health care system. The cost of health care with a few exceptions is generally not open to the consumer. It's very difficult for him to find out what things cost. I speak from personal experience. It's been very difficult in my role as president of the university health center to find out what anything costs within that particular system.

My second major area of concern is the problem of equal access for all consumers. It's not good enough for providers to say that they do not turn people away. I think that equal health care is a right for all Americans, and I think that we have to guarantee a mechanism where everyone who comes forward for health care in a given geographical setting recognizing that there are going to be wide disparities between Burlington and Island Pond as a classical example, I think for the next thousand years. The people within those respective geographies ought to be able to present themselves and get absolutely equal quality care without having to compromise themselves personally to get it. I don't know what that mechanism is, but it doesn't exist today. And I think that those two areas of opening up the books on health care and establishing standards and protocols that can be rigidly enforced through audit and an overview and equal access for all consumers are the two principal areas that should be looked at from the consumers' point of view.

Senator LEAHY. You think we are far from it at this time?

Mr. ROBINS. I don't think either element exists in today's system.

Senator LEAHY. Who provides the oversight or the overview?

Mr. ROBINS. I think that the overview has to be carried on by a professional, but I think the accountability loop should be reviewable by consumers whether that's boards of trustees or health councils or individual consumers who are in possession of their own records. I think that the general outcome will be one of reduction of malpractice harm, reduction of overutilization, consumer awareness of good health, and good health needs, and will generally keep everybody on their toes.

Senator LEAHY. Dr. Luginbuhl made the point this afternoon that whether we talk about Federal funding, insurance, Blue Cross/Blue Shield, or any other form or whatever, we are fast reaching the finite limits of what can be spent on health care. As Dr. Robbins pointed out, over $100 billion is spent in this country now a year, 8 percent I believe of our gross national product, so I welcome your suggestion.

Mr. ROBINS. I would suggest, though, Senator, that I don't think we have to spend more money. I just think we have to reduce the unwarranted overutilization of the present system and divert those dollars where they belong.

Senator LEAHY. I understand. I'm not suggesting that we do need to spend more money. What I am suggesting is that we better utilize the money we do have. It's for the purposes of this hearing. Many of us feel that we are reaching the limits of what the Federal Government can spend in this and a whole host of other areas. It's reflected at the State and local government, too. Our needs are going to continue to increase and we are going to have to remove the waste that we know of.

Our next witness is Dr. Henry Tufo. Dr. Tufo.

STATEMENT OF DR. HENRY M. TUFO, GIVEN HEALTH CARE CENTER, BURLINGTON, VT.

Dr. TUFO. I had not intended to give any testimony until I read Betsy Davis' letter and testimony this morning and until I heard and saw Mr. Fifield's graph of health care costs. I think Ms. Davis' letter

is excellent. I simply want to reiterate some points in it. I hope it doesn't suffer from reiterating some of those points.

Betsy said essentially that at the conceptual level you want a system that has some ground rules. You want to make sure that there's a means of coordinating care for the patient, and Betsy has chosen to use the problem oriented record for this. You want to make sure that a system has a mechanism of assessing performance, you want to make sure that the system has openness of information, openness is necessary not only so that the consumer and provider can assess whether or not the system is meeting its stated goals, but also as a means of stressing patient self-help. Until the notion of patient self-help really gets accepted and stressed you are not going to do very much about cutting down health care costs. I think at the practical level the challenge to U.S. Government; the State of Vermont; to us as individual providers; and to you as consumers, is to do something about, as Mr. Robins very aptly put it, the very rampant overutilization of the service. Mr. Fifield's graph shows that we are now spending $82 million a year for hospital services in Vermont. Even assuming as little as 10 percent overutilization, and I'm sure it's more than that, that we are talking about $8.2 million that can be freed up which is more than enough in the State of Vermont to take care of, to provide total ambulant health care with care needs for every rural Vermonter and have some money left over.

Senator LEAHY. Thank you very much.

Dr. TUFO. The challenge to this committee is to find ways of rewarding the behavior outlined above. Unlike Tony Robbins, I'm not so sanguine about the Federal Government's ability to provide a reasonably good health service for rural areas. The State of Utah has already done this, but they have done it in the private sector and I think done it well from what I am told. I would think that the Federal Government's major responsibility here is to begin to force into the system mechanisms for rewarding behaviors that shifts dollars from very expensive institutional care to less expensive care, and to promulgate ways and find ways to make sure that standards are set and that the idea or the notions of the patient's self-help and openness of information are rewarded.

Senator LEAHY. Thank you very much.

I'll start off questioning the panel with one question back to Mr. Fifield and ask anybody else to add on it if they would like to follow up on Betsy Davis' question. Why do we not have reimbursement for nurse practitioners' providing services in those institutions when a doctor is not on site? Is it a case where we are in many ways following tradition and have just not utilized other areas of medical practitioners?

Mr. FIFIELD. I could, I guess, go right to the bottom line without a lot of ifs, ands, and buts, Senator, and say that when the time comes that there are a sufficient number of nurse practitioners out there who are providing solo kind of medical care and Blue Cross/Blue Shield subscribers are using that service, we will begin to pay for it.

Senator LEAHY. Don't we have a chicken/egg situation here? I'm not singling out Blue Cross/Blue Shield because the Federal Government has the same hangup, but in listening to this testimony here I cannot help but feel that there are an awful lot of areas where a

nurse practitioner or medical practitioners other than physicians could be utilized especially in a rural area without even going into the question of whether they are going to be utilized in an urban area. And I'm wondering: (1) If we find they are not going to be used more because of the fact that financing is not available, and (2) if the financing is not available are we at times forcing people into more expensive alternatives for the same services?

Mr. FIFIELD. That could be but I think the thing that people have to keep in mind, and apparently there are a lot of people in the audience here that are enthused, and this is a viable alternative, no question about it, but the Federal Government pays, and many of these services are professional nurse services, about $1 million right now in the State of Vermont through the title 18 program. In the case of Blue Cross and Blue Shield, we are paying for, for instance, pediatrics nurses, nurse practitioners who work under the direction of a physician.

Senator LEAHY. I'm talking about those who are not.

Mr. FIFIELD. I understand. I understand, and I'm not really aware of how many services are provided by solo nurse practitioners where there is a charge for those services from the individual. I doubt that there are many but maybe there are.

Senator LEAHY. Did Mr. Newman in Hanover want to—did he want to respond?

Mr. NEWMAN. Well, I'm not sure whether to wear my medicaid hat or my Dartmouth-Hitchcock Medical Center hat.

Senator LEAHY. Either one.

Mr. NEWMAN. Well, with regard to medicaid at least as of a year and a half ago when I left your city, the reimbursement was under the control of the State, and it was the definition of who was eligible to receive fee for service, which is what we are talking about here, was defined by the State licensing and the State medicaid program. In other words, the State, if the nurse practitioners were licensed and the State recognized her as eligible to receive a fee, then the medicaid program would permit that. The problem, however, is that that doesn't happen in most States, and I can't speak for Vermont. I don't know what the particular circumstances are. Medicare regulations are, have been restrictive, and I would say that the point that has been made in the discussion is a valid one. I'm not sure that it's fair to expect the Blue Cross/Blue Shield people to step out ahead of the Federal and State programs in that regard, but there is an analogy, and there is at least a caveat that needs to be raised which I can derive from my experience in medicaid, and that was that in the—one can analogize this discussion to institutional care in nursing homes, and the experience with medicaid where nursing home coverage was mandated in the original legislation was that there was a proliferation of construction and financing of nursing homes, and GAO and other audits that I was very familiar with before leaving Washington a year and a half ago indicated that there was reason to believe that there was substantial overutilization of even what should be presumed to be lower cost alternatives, so that there are problems in connection with opening up to reimbursement services that were previously not covered. I think that my own feeling is that coverage of nurse practitioners under fee-for-service arrangement should be

encouraged, and I would think that one of the results of this hearing might be that you, Senator, could convey the level of concern that's been expressed here and I would associate myself with it, that in rural areas there need to be financial incentives which encourage the use of these various alternatives, and I would leave it at that. There are a couple of other things I'd like to come back in and say, but let the others come in at this point.

Senator LEAHY. Thank you. Is there anybody else who wanted to add on that point?

Mr. ROBINS. Senator, I think—you have got to take—I hear what Mr. Fifield is saying and it always bothers me. We had, I think, the same discussion over those laboratory fees at the UHC 3 or 4 years ago and we ended up getting a change. And I always feel there is room for negotiation of these things—perhaps I'm wrong—when you look at the cost of delivering health care in the islands and the island project to which Betsy refers it works out to something, as I recall the numbers, between $10 and $15 per person in the patient-shed area, not per patient, but per person in the patient-shed area. It seems to me obvious that the cost of this type of care is considerably less than either hospitalized care or nursing home care, and it seems to me it certainly is in the "Blues" best interest to utilize it and push utilization of it, and push it in Washington or anywhere else, Mr. Fifield.

Mr. FIFIELD. Can I respond to that?

Senator LEAHY. Go ahead, Mr. Fifield.

Mr. FIFIELD. I hope we are not—maybe I'm confusing definitions here—I hope not, but we are interested and we are pushing in the area of home health service, and as I understand it, that includes professional nursing service. The original question, I believe, applied just to the individual solo nurse practitioner, if I understood that correctly.

Senator LEAHY. I think perhaps Miss Davis would like to add to the question as she raised the original point. Betsy.

Ms. DAVIS. I think just in clarification, I think it's important to understand that the nurse practitioner is not functioning as a solo practitioner. She is part of a system of care working closely with a physician. The irony of the thing is a nurse practitioner who's had additional training working in a physician's office with a physician physically located onsite can deliver the service, the physician signs the bill. He gets paid for it. However, move her 3 miles, or even less, away, as an extension of that physician and with defined protocols, and so on, he cannot be reimbursed for those same services. I think it's the way physician's services are defined both under medicaid and medicare, and private insurance that prohibit reimbursement under those programs at this point for a nurse practitioner. I think we are mixing two issues, home care services, and we are focusing on services in an ambulatory setting for preventive screening and acute care and so on.

Dr. ROBBINS. Betsy, in the first case, when the nurse bills and the physician is there it is billed as a physician service, right?

Ms. DAVIS. That's right, with a physician's signature, that's correct.

Mr. FIFIELD. And we are paying for those, by the way.

Ms. DAVIS. You are paying for the services of the nurse practitioner there but not when the nurse practitioner is 3 miles away.

Mr. FIFIELD. When employed by a physician we are.

Mr. ROBINS. Who's providing——

Mr. FIFIELD. The doctors provide——

Mr. ROBINS. The doctors provide. We do the same thing with interns at the Villemare Center. Is that right?

Mr. FIFIELD. As far as I know they are not paid directly to the resident or the intern.

Mr. ROBINS. They go to some other provider.

Mr. FIFIELD. They go to some other surgical residency funds or whatever.

Senator LEAHY. On this point, I'll be glad to go back to this point if they want further. I promised Mr. Lawrence that we would hear his question for this panel. Mr. Lawrence, did you have a question for the panel? And would you identify yourself for the record, please.

Mr. LAWRENCE. Ermont Lawrence, Williston, Vt. I live in a rural area. I see there are no rural people on this panel or the questioning of this panel. I see——

Senator LEAHY. Mr. Lawrence, if you would—we are having a further hearing, as you know, at the Grand Isle County Court House in North Hero tonight, the smallest and most rural of our counties.

Mr. LAWRENCE. I have waited all day, Senator. I believe my first amendment would give me the right to have a word or two. Please? Thank you. I want to requestion our State, let's see, Vermont health commissioner. Did you mean to imply that you wanted to do away with the Veterans' Administration hospitals and combine them into a rural or a national comprehensive health organization?

Dr. ROBBINS. I think that most of the veterans hospitals are not located in rural areas and that's not a reasonable solution. Where a Veterans' hospital is located in a rural area it may turn out to be a very useful resource in providing medical care to groups beyond the veterans.

Mr. LAWRENCE. Thank you. Didn't quite answer the question, but it was a good try.

I wonder, Senator, why it is that there is so much emphasis on technological expertise here? Now, in our Vermont educational TV they have a program where people talk about basic nutrition. I believe health starts with nutrition. I believe all the learned doctors here would agree to that. We don't see any commercial TV's putting on programs of health nutrition. I wonder why it is that when we go into a Grand Union or an A. & P. there are isles full of dog food. There are isles full of junk food. Why when we go into a drugstore there are shelves full of patent medicines. They are huckstered on our TV, on our radio, and in our news media. Candy is pushed. Liquor, tobacco, cosmetics. Why cannot these be taxed and the taxes taken from these put into this health organization? Why eternally go to Washington? Who, in the long run, comes to the working man, takes his taxes, takes them to Washington, and then Washington sends them back?

Senator LEAHY. Mr. Lawrence, I mentioned that if you do have a statement that you would like——

Mr. LAWRENCE. I'm trying to make it, Senator. I'm not a learned man.

Senator LEAHY [continuing]. Before the committee we'd be happy, we'd be happy to receive it and happy to put it in the record. I would, though, point out that we have an extremely limited amount of time. If you have a specific question?

Mr. LAWRENCE. I tried to put a specific question.

Senator LEAHY. And I think that Dr. Robbins answered it. If you have a specific question of the——

Mr. LAWRENCE. Why doesn't the Senate tax these people a little harder than they do, especially perhaps at the high-priced surgeon and high-priced medical doctor level? And tax him a little bit more and put it into the rural health or the slum health organization?

Senator LEAHY. I understand your question and it's here and I do not really feel competent to answer the questions that you have asked.

Mr. LAWRENCE. You say, Senator, you are not competent to answer the questions that I have asked?

Senator LEAHY. That's absolutely right.

Mr. LAWRENCE. You don't know why these things cannot be taxed and the money put in instead of taking money from the working man, from his taxes in order to set up some more pork barrels?

Senator LEAHY. Mr. Lawrence, I believe we are going off the purpose of the——

Mr. LAWRENCE. Overtime. I know that, Senator.

Senator LEAHY [continuing]. Off the purpose of this hearing. I appreciate the comments you made as I also appreciate the dozens of pages of materials and letters that you have sent me in the past.

Mr. LAWRENCE. About Tom Payne.

Senator LEAHY. In the last several weeks, and the large amount of material you gave me the last time I was here in Vermont.

Mr. LAWRENCE. Yes, sir.

Senator LEAHY. I appreciate it. Thank you.

Are there other questions from the audience?

Dr. ALDEN. Dr. Peter Alden from Burlington, Vt. Thank you, Senator Leahy. Just a short comment just to reinforce what Mr. Fifield said. My office which has six physicians roughly sends out between $40,000 and $50,000 of laboratory work per year to an out of State laboratory. All that could be done at the Medical Center Hospital of Vermont, but their fee schedule won't allow them to be competitive with us. Were there an exception to this Federal bureaucracy and their requirements, our money could go to them, they could do the work, they would get better utilization of the equipment they have up there. There's even been a laboratory set up across the street from the hospital capitalizing on the fact the hospital cannot make its prices for outpatient services competitive. I'd like to reinforce the importance that has been put on the visits.

Senator LEAHY. Incidentally, I am concerned by that point. It's been raised twice, and I will ask the staff to find out why within the administration or the regulations why this problem arose. I certainly am concerned.

Dr. ALDEN. I want to reinforce the importance of home health care. This measly 1 or 2 percent of dollars from this $100 billion that is being spent is for home health services. It's just not enough. I have a problem, however, about some of the comments that were made about reimbursement of nurse practitioners made in their physician's pri-

vate offices. We have a problem charging and collecting for this service that perhaps isn't as bad as Betsy Davis' problem but we still have a problem and I will just outline it briefly. Because of the controls the Federal Government has set up on medicare/medicaid fee increases for private physicians, the Blue Shield's usual and customary program in which their fee increases are restricted by other regulations, namely, State regulations and Mr. Guest's letters that he writes to Blue Shield with copies to all of us, we have a lot of problems being able to charge appropriately for varying services. We are told that we have to provide standard office charges for individual services, having the same for everybody. I can't charge Blue Shield customers differently for the same service that I charge other people without insurance of lesser amount. This is probably bad. We have always been able to charge poor patients less than better equipped patients, but we can't do that. Anyway we have all these requirements, red tapes to get through. Henry Tufo's system says that if a service is provided by my nurse practitioner and that she's working under my direction, under my standards we should charge the same amount for those services as I do for myself. If a patient calls up and says, I want a physical, and it's a young person and they don't have too many problems and I'd like to offer them a "complete physical," and say, well, now, would you like it done by my nurse practitioner and we can save you a few bucks, or would you like it done by me and it costs a regular amount, but you get to talk with the big cheese. We don't know whether the patient is medicare, medicaid, Blue Cross or who else. We don't know what we are dealing with. So if we have to say, the fees are the same, the patient has no incentive to ask for a physical by my nurse practitioner. If we had a little bit more flexibility and freedom from the red tape we could, perhaps, work out a system where we could really provide this service by a nurse practitioner and save the patient some bucks by getting the same service but by a different person. We figured out trying to have my nurse practitioner follow up on some of my aged patients being discharged from the hospital, home visits can't be covered. Same reasons, if not performed in my office under my supervision, we can't bill medicare or medicaid for it. I tried to send my nurse practitioner around to give flu shots to patients who are incapacitated and in homes. I can't legally charge for those services, and, therefore, I wander around giving them flu shots myself. For a while I guess the visiting nurses weren't giving flu shots in the home. But when they did it it would have been more expensive—$14.50—than it would have been if my nurse practitioner did it—$10. This myriad of Federal regulations is really hanging us up as far as trying to provide the best service at the minimal cost for the patient.

Senator LEAHY. I understand the problem and I certainly do not want to suggest that either myself or the committee are here to defend those regulations by any means. You and I have had correspondence on some similar subjects in the past.

Mr. Coe, you wanted——

Mr. COE. I just wanted to respond that if we get away from the cost reimbursement fee for service practice of medicine you'd solve all that problem, right?

Dr. ROBBINS. Senator, a point of information, just one brief point of information. As Peter was talking about flu shots I wanted to point out that we do not have for this current flu virus an effective vaccine. We are using old vaccines.

Senator LEAHY. I will pass that information on to Senator Clark who will feel a lot better about the fact.

Any other member of the panel want to add anything else before we adjourn to the very rural area of Grand Isle County?

Mr. FRANCISCO. This continual dichotomy or schizophrenia which appeared all today and many other times in which several of us talked about new systems of care, new models, prepayment, all of this, and then we start talking again about solo practitioners and reimbursement systems involved, fees to individuals and the whole set of regulations and the red tape and that we have got to cut through a lot of that to get back to some basic systems that solve a lot of these problems.

Mrs. HYDE. Ellen Leigh Hyde, Chris Hyde from Landgrove, Vt. I am not a doctor. I'm not a nurse, I'm not a rural Vermonter, but I would love to speak for rural Vermont. The new clinic that you heard about this morning in our area really worries me. If I were rural Vermont but I'm not; they are my neighbors. I live next door to these people and I love them. I would worry about the burden of this maxiclinic in an area that probably has at least three hospitals all around it, an excellent rescue squad, and a visiting nurse program. It's the wrong location, and I wish that Dr. Freidman were still here because I saw in his approach to rural medicine, a larger and broader sense of regional health centers. Now, maybe a rural Vermonter couldn't say this. I'm not very eloquent either, but my heart and my mind are with these people; they are emotionally and financially spent, and I get annoyed when you are talking about job payments and who is going to get paid more than the other. I speak for my rural friends and neighbors; how will they get to this new clinic, how will they pay for it? Who will help them with the financial statements, the health questionnaires. I hope this conference, this hearing will address itself to rural Vermont, assuring that we all have a right to good health!

Senator LEAHY. What we hope to do—and I will end on that note—what we hope to do is design legislation that will, along with the problems that Dr. Alden and others have brought out, will cut through some of the anachronistic, the archaic regulations and assure the fact that we have delivery of health services to rural patients with the particular problems that occur there. One of the reasons that this hearing was held in Vermont rather than Washington is that Vermont is the most rural of all States, and I wanted to hear from this State and from people that I knew and could respect what ideas they have. There will be similar hearings held in other parts of the country. Hopefully, we will get, we will be able to remove eventually through legislation some of the problems that we have heard here today. What we will do is distill this record and also the hundreds and hundreds of pages from some 80 other people that have submitted testimony to us. It has been extremely helpful. I know that this evening our meeting in Grand Isle will also be helpful. And I appreciate the time, the diligence with which you all listened. I'm just

sorry that we don't have time to go into all the questions that are here.

Ms. HOCKERT. Barbara Hockert, Senator Leahy; I don't know how many minutes I have had my hand up. I had it up before this last person was recognized. I have a question. I am here as a consumer, but also as project director of a project called Project Mobility, Freedom Wheels, Inc., which is concerned with architectural, transportation, and communication barriers in the State, but specifically, here in this county.

First of all, I want to speak in support of something that you said, Senator Leahy, when you said that there were finite limits on what can be spent on health care. I would agree with you. There are not now, however, those finite limits, or we are not quite as near reaching those finite limits, in the field of communication.

I'm on the board of directors of Vermont Public Radio. Vermont Public Radio hopes to help with some of the concerns that this gentleman just expressed. We certainly are not up to the limits of what we could spend in this State on transportation, particularly on transportation that is accessible for handicapped and elderly people.

Senator LEAHY. And the question for this panel, Ms.Hockert, is——

Ms. HOCKERT. That was a comment. There have been other people here that have made comments and questions. I am going to ask you a question at the end of what I have to say in this comment. The other thing I want to speak in support of is patient self-help which Betsy Davis spoke to. I am not representing the consumer, although I think I am probably as much a representative of the consumer as anyone here, and you did a good job, Patrick.

Senator LEAHY. Maybe the record should indicate she was referring to Patrick Robins.

Ms. HOCKERT. He did a particularly good job. I would say this, that if we are talking about patient self-help, the census figures, the most recent census released by the U.S. Census Bureau states that 1 out of 11 people in this State are handicapped in such a way that they cannot get into doctors' and dentists' offices. They cannot use regular transportation. They cannot use any of the facilities that are already in existence. I think that that can be changed around, and I think we can talk about spending some money in the field of transportation. A lot of the people that are getting home care could get out to existing facilities—not just into the city, but into whatever facilities are available in their area. In the whole area of communication there is money still to use for something like Vermont Public Radio which hopes to provide health care information. Since I am only a board member I can't say exactly how it will be done. But medical information is one of the kinds of things that is the intention of the board to provide.

My question is this: When we are talking about health care and delivery of health care, do we necessarily only have to talk about those components that can be delivered by the health profession? Can we not talk also when we talk about future directions and components in a quality system, talk about the components of communication, of transportation, and the moneys available in those areas.

Senator LEAHY. As you know, a number of those points were raised this morning.

Ms. HOCKERT. I was unable to attend this morning.

Senator LEAHY. I'm sorry. The question of transportation was raised by several different witnesses at different points this morning. I'd certainly if you have material that you'd like to submit for the record——

Ms. HOCKERT. It's already submitted. You have it, I would hope.

Senator LEAHY. Beyond that, we would be happy receive it. It is an area of certainly a major question when you are dealing with rural areas. We have done, or this committee has done a publication dealing exclusively with that question, and we will be happy to send you a copy of it. There is no question it's a matter of importance. It's also not only a question of what type of transportation and where, but also the question of whether we want to have transportation to an area out of the community where there may be better medical facilities or whether to emphasize facilities within the community for all the social as well as medical reasons——

Ms. HOCKERT. Exactly.

Senator LEAHY. But your testimony is part of the record, and I appreciate it. I'm sorry that you were unable to hear the testimony this morning.

I am also sorry that I am going to have to call the hearing to a close out of consideration for the people who have made arrangements for us to meet with them in Grand Isle. We will be late as it is now. Thank you all very much.

[Whereupon at 4:55 p.m. the subcommittee recessed, to reconvene at town hall, North Hero, Vt., at 7:45 p.m.]

SUCCESS STORIES IN RURAL HEALTH CARE DELIVERY

MONDAY, FEBRUARY 16, 1976

U.S. SENATE,
SUBCOMMITTEE ON RURAL DEVELOPMENT
OF THE COMMITTEE ON AGRICULTURE AND FORESTRY,
North Hero, Vt.

The subcommittee met pursuant to recess in the town hall, North Hero, Vt., at 7:45 p.m., Hon. Patrick J. Leahy, presiding.

Present: Senator Leahy.

STATEMENT OF HON. PATRICK J. LEAHY, A U.S. SENATOR FROM VERMONT—Resumed

Senator LEAHY. I apologize for being late. I'm Patrick Leahy, incidentally, and we started at 7:30 a.m. this morning in South Burlington and we have been at hearings all day long at the medical center.

Senator Dick Clark, of Iowa was going to be at these hearings with me, and, ironically enough, he's in bed with the flu and extremely ill, and he is disappointed not only to miss this but to miss the day of skiing that he had planned yesterday with his son.

The hearings are being held by the Subcommittee on Rural Development of the Senate Agriculture Committee, which, as some of you may know I serve on. We are having a series of hearings and we have had them in Washington. The health subcommittee is chaired by Senator Edward Kennedy, of Massachusetts, and this subcommittee is chaired by Senator Dick Clark. I'm a member of this particular subcommittee, and Senator Kennedy and Senator Clark and I and others have had the hearings in Washington. There have been hearings in Massachusetts by the health subcommittee, hearings here, and hearings in other parts of the country to find out how best to provide health services to rural areas. And I recommended to the Agriculture Committee that we have hearings in Vermont because we really are the most rural State and knowing Senator Clark and Senator Kennedy are both interested as are Senator Talmadge of the Agriculture Committee and Senator Robert Dole, of Kansas, who is the ranking Republican on the committee.

And we have heard a great deal today, not only in Burlington but all throughout the State because we used a closed circuit television system to connect us to different parts of the State as well as New Hampshire. I think that we all realize, not only from the testimony we have received in Washington, but the testimony we have received today, that the problems in rural areas are certainly drastically different, as all of us who are Vermonters know, from those of the urban

areas. In many instances it's not necessary to deliver a trained corps of physicians who may be specializing in a number of things that are really unnecessary except in the most extreme cases. We can use nurse practitioners. We can use other facilities as you have here in Grand Isle.

Grand Isle is the smallest of all of the State's counties and it was one I recommended we come to and I appreciate you all coming out on an evening like this.

We will hear first from Barbara Abare who is the president of the Grand Isle Health Council, and I'm going to ask as we go along a number of people to speak and then I'd like to get feedback from you. I'm going to ask each of you when you speak to give your name even if you have spoken already so that the stenographer can get it for the record we will have in Washington. Don't feel that you have to spell things out in perfect medical language or anything else. I want to hear exactly from you what you think, but Barbara if we could start with you. Come up and state whatever you'd like.

STATEMENT OF BARBARA ABARE, PRESIDENT, GRAND ISLE COUNTY HEALTH COUNCIL, INC., GRAND ISLE, VT.

Mrs. ABARE. I think I was asked to briefly capsulize and tell you a little of the history of the health council, and as I look around I see some of those famous nine angry women and I'm beginning to hope that we are living that reputation down. But the health council was started nearly 4 years ago when a group of us became upset and quite tired of the amount of money that was being spent in the county to do studies. At the time we had formed the health council there was another study going on which was to help the people of Grand Isle County to appraise their health situation, and in this study $40,000 was spent. And I guess to date there isn't even any written report on this study. To make a long story short we met up in North Hero at the school and we formed a health council and from that time to the present we have kept really quite busy. We have had several gentlemen work on the council with us. We have equal representation from each town and a county member at large. In the membership of our health council are five, at the present time, women who are serving on the board of the VNA in Burlington. This is the Visiting Nurse Association, and it was because of our close association with the VNA and the fact that Sue Heath, the nurse practitioner, pediatric nurse practitioner was in the county with the mobile unit and traveling from one end of the county each year that we sat down and talked over the health needs of Grand Isle County. And with Betsy Davis' help our first grant through HEW was written and the Champlain Islands Health Center came into being. And while we always say this health center is in a trailer it's a little hard to identify it strictly as a trailer, but we, as I said, we are women who believe in trying to get out and doing something. So one of our members picked up a Mash field hospital, which we unpacked. People donated everything that we could think of. Even our home demonstration group became involved and gave us a shower of household items because actually we had no cash locally to set up this health cen-

ter. And it will be 2 years this April that we started our first screening physical examination and 2 years this May that we opened, and I do not have the figures right down to the most current, but I do know that at one point we had had 2,800 patient visits and of this number there were approximately 56 who had to be referred on into Burlington or St. Albans for further follow up.

I'd like to take just a moment if I could. I think there are people here who don't know who the health council members are and who they can turn to in their own community if they have questions, so if I may ask the council people as I introduce them to please stand up. From Isle LaMotte there is Mrs. Hill, Edith Hill. Thank you, Edith.

Senator LEAHY. I might just put in one personal note which will probably boggle the people when they read the record, but Mrs. Hill is a former neighbor of mine in Burlington, Vt. In fact, we lived in a duplex house. We lived in one side and Mrs. Hill was on the other, and she is a long time friend and I'm not the least bit surprised to see that she's actively involved in this.

Mrs. ABARE. And from Alburg we have Nancy Christopher. Nancy is also health officer up there. And Anna Bohannon who is the lady that said nine angry women started the health council, and it will take an army to stop us. And also Reba Schumway from Alburg. And North Hero is Alice Blackwell who's been with us from the start and Margaret Whittlesley. And I guess I'm the only member from Grand Isle present, and from South Hero, Marsha Frechette and Barb Duffy, and Ethyln Dubuque. And I guess one of our other members is at play practice and hasn't got away yet.

Senator LEAHY. I should probably add for the committee that the chairman of this hearing is personally acquainted with just about everybody here tonight.

Mrs. ABARE. So this was the health council group that worked together to start the health center and then we have been very very fortunate to have—well, I guess let me backtrack just a minute. Before we started the health council we asked Betsy Davis if the nurse who was employed in the VNA home health nursing program could be an island resident, and out of retirement came Audrey Noel and Audrey is the VNA nurse assigned to the island. Then when the center, we began to discuss the center formation more fully, we were very happy, and I say this with a great deal of pride, that Sue Heath asked to come back, and I'm sure there's many days that she may wish she wasn't here, but for 2 years she's run up and down the county and Sue is our pediatric nurse practitioner at the health center. And we have been very very fortunate to have Dr. Fred Holmes from St. Albans who serves as Sue's pediatric backup physician and pediatrician, and Dr. Alan Rubin who started out in the beginning with us from Burlington, and now is medical backup physician and medical onsite physician.

And, of course, again I say this proudly, and I know we all wear many hats, but this couldn't have been accomplished, we couldn't have had this health center if it hadn't been, and I'm going to use the words, many hundreds of hours, of Betsy Davis, the executive director of VNA has given to us and we thank you again, Betsy.

Senator LEAHY. For the record, might I just inject a question. This was a case, I take it from what you have said here, where all of the

community were actively involved and it was not a case where the Federal Government suddenly came into the program with a great deal of money and a whole lot of people to do the work, but it's the communities themselves and the people in them that put the program together.

Mrs. ABARE. That's right. And as I say, we were very fortunate, you know. We have a little reputation. I'm new to the islands, but I don't think I will get thrown out if I stay. We have a reputation that you can't get people from 5 towns to sit down and work together and do things because each town is a separate town within the island community but we have been very very happy and very pleased and proud that we have at all our meetings have a representation from all 5 towns and they are all represented tonight.

Senator LEAHY. Thank you.

The next person we hear from will be Betsy Davis from the VNA.

STATEMENT OF ELIZABETH J. DAVIS, EXECUTIVE DIRECTOR, VISITING NURSE ASSOCIATION, BURLINGTON, VT.—Resumed

Ms. DAVIS. Thank you, Senator. I feel as though I have had an unusual opportunity all day long today and have been heard amply by the Senator and his group, so I plan to be very short. It's been a gratifying experience for us to work with the communities and the county, and there are just a couple of points that I would like to make and much of this is in relationship to some of the hearings and discussions that we heard today. It's been encouraging to hear the real concern for getting health services, a total range of health services out to rural areas in a more comprehensive way. The major point that I'd like to stress is that we feel we are a part of a system of health and I know "system," that word gets overused greatly, and what do we really mean by a system? What's important is that system cannot depend on any one individual, no solo practitioner whether it's a physician or nurse practioner or a paramedic, that whoever practices in a rural area must be tied to a system of health care, and that actually applies to an urban area as well as a rural area. That system must guarantee quality. Those of you who live in a rural area are entitled to the same quality of service as those people who are living in an urban area. And I think, that it's that guarantee of quality that people in a rural area should depend on, not an individual, again whether it's a physician or nurse practitioner or paramedics. I think those people hopefully provide the atmosphere and ability for people to enter into the system so that whoever delivers the care the important thing is that they operate by the same rules and the same standards of practice and that they will be audited for that practice.

I think today we heard a lot about supervision of nurse practitioners and paramedics. I think it's also important that physicians are audited and that the whole system is audited, and that is what people are entitled to. With a guarantee of a system, I think then we will remove some of the other concerns of medical students, of people going to the rural areas. Those concerns we heard this morning were: How does a physician in a rural area keep updated in terms of continuing education to make sure that they are relevant in terms

of the practice they are providing; that they would have a supporting system so that they would not spend 24 hours a day and some of the nights up delivering services by themselves; that they have the back-up support from a system of care so that they can get back for continuing education and other kinds of things that are necessary for the survival of anyone practicing anywhere whether its rural, again, or urban. I think the important things that we have tried to accomplish with the health center is to, first, to provide a method for people to get into the health care system. I think it was impressive to us to see by our experience on the mobile unit that 33 percent of the children we saw had no source of preventive care. Another 45 percent of the children we saw on the mobile unit had irregular sources of health care and that many adults that we talked to would name three or four physicians as their source of health care. I think we as health professionals have done a very poor job in raising the expectations of you, the consumer as to what you should expect from the health care system, that you should be guaranteed a continuing quality service that is available 24 hours a day, again, no matter who is delivering it.

And, as an entry into that system, again, at the health center we are hopefully removing some of the barriers of getting into the health system whether they are psychological barriers or whether they are educational barriers or whether they are financial barriers or whatever they are. So that, again, I think one of their main functions of personnel is not only to deliver a certain level of medical services but to make sure that you are guaranteed easy entry into the rest of the system so your total needs are met. The nurse practitioners working there will help you get into the specialty diagnostic services, will help follow through so that you can get through the whole morass of the health care system now. I think the other most important thing is that we are committed to involvement of the community and the consumer as knowledgeable, responsible people, hopefully, in increasing your ability to define the health care system and what it should look like. Therefore, we are committed to the concept of the governing health council that has responsibility for program direction, services design, evaluation, feedback, so that we can continue to change the system as the community defines it.

In addition, we are committed to the consumer and the patient in terms of you being fully knowledgeable about yourself and how you work and so that you can better take care of your health care. In the end its going to be you, the patient, who is going to make any sense out of this health care system that we are trying to improve.

I said it would be a few words so I will stop there. It's really been a privilege for me to work with this community, and I look forward to continuing development of the health center. Thank you.

Senator LEAHY. Thank you very much. As I stated on behalf of the subcommittee—incidentally, there are, I have one member of my office, my administrative assistant here with me and four others from Washington, the two members from the Senate Agriculture Committee, Jim Giltmier to my immediate right and Warren Oxford to his right, as well as representatives of Senator Robert Dole's office and Senator Dick Clark's office.

Ms. Davis has testified twice for our subcommittee today as well as been involved in colloquy of a number of questions and answers at different times throughout the day, and we appreciate it.

Earlier this evening the six of us had a chance, myself and five from Washington had a chance to go through the health center here with Sue Heath and just as an indication of how it is used even during the time we were having our tour there was a call for her services. But I would ask Ms. Heath if she would testify.

STATEMENT OF SUSAN HEATH, BURLINGTON, VT.

Ms. HEATH. Ms. Sue Heath, nurse practitioner of the health center. I don't think I have a great deal to add to what Barbara and Betsy have already said. Barbara has stated nicely the center's beginning and Betsy has talked about some of the concepts under which we are trying to operate.

From my own perspective as a nurse practitioner if I go back to when the health center started it was, I think, a beginning venture for everybody. We could say, here is something that we have to offer to the residents in the county and the health council was saying, we need some health care up here, so we got together and said let's try out a nurse practitioner as an extension of the system and see what she can do. I see many faces here of people who have used the health center, who I think have experienced what a nurse practitioner can provide and have understood what her limits are.

Betsy reviewed this morning that over the past year and a half we have been able to take care of 93 percent of the adult problems and 95 percent of the children's problems so that only a small number have had to be referred on outside the county.

Although Audrey and I are the visible people at the health center, we represent a small part of all the services being provided. There are some of you who have experienced the other components of the system such as Dr. Rubin and Dr. Holmes providing the consultation that is needed for a nurse practitioner. Another important component is your involvement as consumers of the health center.

Everybody who's come to the health center has heard me say, this is what the problem is and this is what you can do about it; we want you to assume more responsibility so that you can have some control over what's happening in the disease process as well as understanding the degree of wellness that you are experiencing and how you can maintain that.

Now, I don't think I have anything else to add.

Senator LEAHY. Thank you very much.

I'd like to hear from the two doctors who provide backup and audit services, and I call Dr. Fred Holmes first.

STATEMENT OF DR. FREDERICK C. HOLMES, ST. ALBANS, VT.

Dr. HOLMES. Thank you, Senator.

It has been an interesting day and I think, you know, if you think where we were during the day today and where we are tonight, this is where it's at. When you want to find out what's going on in rural Vermont, I think that my relationship with Sue and the people in

Grand Isle have more to show for it than all the years I have spent in Burlington.

One of the things that impressed me today is that much of what we discussed and many of the solutions that were offered seemed to be long-range things in terms of designing health care systems or of considering alternate forms of education, but I think, very briefly, that I'd like to touch on a few things that are immediate problems and the thing that is sort of fascinating is that these immediate problems are almost universally addressed by the Champlain Islands Health Center. The first one is I was rather distressed this morning to find out that I'm no longer viable as a solo practitioner. I had to keep pinching myself to find out that I can become extinct, but, in fact, in really rural Vermont I think most physicians are solo practitioners, at least all but three in Franklin County are, and we have about 15 or 16. Many of us have the luxury of cross-covering for somebody else when we want some time off, but, unfortunately, there are many of our peers who don't sign out for somebody and they leave their phone unanswered and in rural areas I'm sure many of you may have experienced this where you call for assistance and nobody answers, and if the doctor that you are used to isn't there when you call you may find yourself in a situation where you are not exactly sure what to do. I would suggest that an immediate solution would be what they have done here in the islands in terms of providing an answering service to alleviate these difficulties or at least getting some of our peers to cover for each other.

Senator LEAHY. How is the answering service handled in the islands?

Dr. HOLMES. Volunteer.

Senator LEAHY. And is that 7 days a week?

Dr. HOLMES. All the time.

Senator LEAHY. How many volunteers? Do you have any idea involved in this?

Dr. HOLMES. Three.

Senator LEAHY. Three volunteers. They handle the whole thing?

Ms. HEATH. The calls go into the Villemere Health Center or to the physician the patient has already identified with.

Mrs. ABARE. If I might mention, you know, when you asked us if we had plenty of money when we started. We have staffed the health center with 10 volunteers each week and these women come from the four southern towns of the county, and we have not had to hire anyone at any time to answer the phone or to do any of the other duties which even includes holidays so we do have quite a volunteer staff.

Senator LEAHY. And what do the volunteer staff do? Do they handle everything from the office clerical work going through——

Mrs. ABARE. No; they don't have anything to do with patient's records. They answer the phone, make appointments. They babysit with children when the mother has to see one of the nurse practitioners. They are sort of a liaison between the professional team and public in the center.

Senator LEAHY. Thank you, Doctor.

Dr. HOLMES. I think that another immediate problem which has been addressed very nicely in the islands is the whole question of

public education in Franklin County which is not the best employed in the State. It's not at all unusual to have people who don't even know when they should go see the doctor, and once that they decide that they should they don't know how to go about doing it so that at peculiar hours they wind up in the emergency room for routine medical care where the cost is greatly exaggerated and they wind up in a situation in which they are no longer in control. Here in the islands as I have watched Sue and Audrey and the girls work, the education that they have passed out with the health care that they are providing seems to make a large contribution toward improving the health of the population. One of the things that's really my pet peeve and it bothers me a great deal is the cost of medical care.

In my practice in Franklin County 40 percent of my population is on medicaid; only 10 percent are on Blue Cross/Blue Shield; 30 to 40 percent have no coverage at all; and 75 to 80 percent are eligible for the food supplement programs, and that's a lot of people.

Senator LEAHY. How much is the percentage?

Dr. HOLMES. Seventy-five to 80 percent are eligible for the Wick program and that's an amazing percentage. Let's take for instance, and these are situations which are familiar with the people in the islands. If you are a farm laborer and have two or three children and you are only receiving $100 or a little bit more than $100 a week, but you get housing, half a dead cow and all the free milk you can drink, you are ineligible for medicaid. And if one of your children becomes ill, and I have checked on the statistics, and happens to walk into a hospital emergency room with a simple single ear infection that child will cost that family $43. So it's not too hard to understand why we have difficulty promoting even routine crisis health care, much less preventive health care when the cost of the care is so handicapping to the people.

The other thing that's happening is medical care is becoming progressively more expensive for people who provide it through malpractice and everything. At the State's hearings on the malpractice issue there was a good deal of testimony about people cutting back practices and cutting back on services because they can't afford to provide them any further.

The other thing that bothers me about the malpractice situation and then I'll be quiet, but I think it's a very important one. People keep considering malpractice in terms of its cost. Physicians have to charge more because they have to pay more insurance or they order unnecessary laboratory procedures, that do unnecessary X-rays. But the whole beauty of the system that we have in the Champlain Islands is based on an interrelationship between the health council and Sue and a backup physician. If something could be done to loosen up the fetters that you feel as a physician in terms of malpractice so that as a physician you could deal much more freely, much more openly with nurse practitioners who wanted to provide care for which you would be responsible as a physician, and this concept, this team concept for bringing health care to the rural areas could blossom in many other places. But I know many physicians in Franklin County who would be very reluctant to be in a situation that Al and I are in because they are a little bit hesitant in assuming the responsibility for the care that the girls are providing.

Senator LEAHY. Let me ask you a question along that line, Doctor. What are the use patterns? Who uses the facility? You must have some general idea of the population breakdown, men, women, and children for Grand Isle County. Is the use consistent across that population, equally used by men, women, and children, or is there a predominant use by children or women or men?

Dr. HOLMES. I think for the proper answer you have to understand a little bit of the history. Sue and I have been taking care of kids in one form or another through the VNA for about 6 years now, 3 or 4 years before the health center was set up on the mobile van as it went through Chittenden County so that our experience has been almost exclusively with children. And then when she got to the islands and found a place where her services were in fact really needed, the obvious emphasis, because we had the format established and were comfortable with working with it, was to care for children, and then the adult component, if I am correct, was added on as the system evolved.

Senator LEAHY. So there are more children seen proportionately?

Dr. HOLMES. Yes.

Mr. DAVIS. Sixty to forty.

Senator LEAHY. Sixty to forty? Sixty percent children and 40 percent adult? How do the adults break down between men and women?

Ms. HEATH. That hasn't been broken down statistically. I think probably more women use the center because at this point we haven't added extensive evening hours, and there you automatically eliminate a group of people.

Senator LEAHY. You think evening hours would include more men because they are working?

Ms. HEATH. I think so, yes.

Senator LEAHY. Doctor, anything else you'd like to add?

Dr. HOLMES. No, thank you.

Senator LEAHY. Dr. Rubin, if we could hear from you for the record?

STATEMENT OF DR. ALAN S. RUBIN, UNIVERSITY OF VERMONT, BURLINGTON, VT.

Dr. RUBIN. Dr. Alan Rubin, University of Vermont.

Well, it's been exciting to work with Sue and Barbara for the last 2 years, and I have reached a point where I feel almost superfluous and the interchange has reached a point where Sue calls me up 4 out of 5 days a week and says, "Alan, I have this person," and she tells me what she's going to do and I say, that's okay. It's rare that I say I'd like to see that lady or man, or I'd like to see that person go to the emergency room. And I feel that way because we are becoming part of a system and the system relies first of all on the patient. The patient is educated and demystified about what professionalism is and what a doctor means and is a patient who knows a lot about his health care and a lot about his body, and that is one reason I don't feel uncomfortable about prescribing over the phone to Sue's patients or giving advice over the phone because I feel we know our patients well.

The second part of the system is a record which comprises all of the patients' problems, and that is what we attempted to do with that health screening at the clinic. That is, it's a questionnaire, physical exam, and lab tests that give us a list of problems we really don't want to miss when and once we have that record we share it. After Sue sends that down to me or Dr. Tufo to review, we feel confident we know most of our patients' problems. If we don't we ask Sue for more information.

Senator LEAHY. Doctor, then you, actually you and Dr. Holmes provide, as well as providing care when required you provide this audit and backup?

Dr. RUBIN. That's right.

Senator LEAHY. System? For the record, how effective do you think the audit and backup system has been?

Dr. RUBIN. Very.

Senator LEAHY. And do you think this is a model that could be used in other parts of the country?

Dr. RUBIN. I think it is.

Senator LEAHY. Is it ultimately dependent upon the personnel?

Dr. RUBIN. No, it's not.

Senator LEAHY. Do you have enough safeguards within the system itself so that if at some point it was used somewhere and there was inadequate personnel that would show up?

Dr. RUBIN. I think it would. I think the ultimate safeguard is the patient who says, "hey, this isn't right, that's not what I said," and that's one reason we'd like the patient to carry the record.

Senator LEAHY. Let's go into that just a moment for the hearing record because we have had some discussion of this earlier today—this idea of sharing the record with the patient. This is not a traditional way of practicing medicine, is it?

Dr. RUBIN. No, it's not.

Senator LEAHY. Do you feel that it's a good method?

Dr. RUBIN. I think it's a great method. I don't often know what I'm doing wrong unless the patient tells me.

Senator LEAHY. I wish we got this kind of candor at hearings in Washington. I think there would be a lot less problems with the Federal Government today. I might say as an aside it's good to come home to Vermont and get back to reality.

Would you say—and at the risk of leading the witness for the purpose of the record—would you say that sharing the record with the patient is really a tremendously important part of the audit system?

Dr. RUBIN. Yes. The ultimate is the patient audit both in terms of health care delivery and educating the patient about his problems.

Senator LEAHY. Dr. Holmes, did you want to add something?

Dr. HOLMES. I think one of the things that has handicapped medical care for a long time is the mysticism that surrounds the physician and when you deal with people who are ill and you just say, this is what it is, and this is what you're going to take and who's next? There's something missing, and it's a great deal more beneficial and productive for all involved if you can sit down with them and talk to them about it and let them ask questions and exchange interpretations or opinions, you know, to make the whole relationship more satisfying for all involved.

Senator LEAHY. Thank you, Doctor, did you want to add anything?

Dr. RUBIN. That's it.

Senator LEAHY. Thank you very much. I appreciate the time of the witnesses.

I'd emphasize again that the hearing is being done for the Subcommittee on Rural Development as well as Senator Kennedy's health subcommittee. We are looking at models for Federal programs rather than programs for the State of Vermont or the State of Iowa, or the State of Massachusetts or any one particular State; and it has helped enormously all of the people who have testified today, but we have a lot of people here who use the program, and one of the reasons for taking these hearings out of Washington away from the Senate back to local areas is to hear from the people who normally don't testify. So I would like to throw it open to anybody who would like to give their own feelings about the health care system used here and the program used here. Anybody who'd like to ask a question of any of the ones who have already testified here tonight? Maybe what I might suggest we do is take about a 3 or 4 minute break so that the stenographer can rest her hands and think of things you might like to say and then I really would like to hear from you. It would be extremely valuable not only to me as one Senator, but to the rest of the members of the Senate so if we take a 3 or 4 minute break then we will come back at 8:30.

[A brief recess was taken.]

Senator LEAHY. I want to thank the health council volunteers who contributed to the coffee, cookies and cake tonight. I want to tell you, however, that you have done terrible things to my health and having finally taken a vacation for the first time in a long time I have gained weight and this hasn't helped a bit, but thank you very much for doing it.

In all seriousness, it's extremely important for us to get whatever feedback we can so is there anybody here who would like to talk about the health service?

Mrs. PORTER. My name is Ann Porter and I'd like to make a comment on my health care. My two girls have both been to see Sue Heath many times with various childhood complaints. The problem that I have encountered is that Blue Cross/Blue Shield, purchased through the Burlington school system, provides for office visits, and as far as I understand it, we are not reimbursed for visits with nurse health practitioners. I would like this to be on the record that this is a problem for us. It's so much more convenient to go to the health center here in the islands than to go into Burlington; at the same time when I do go into Burlington, I'm losing money. It would be a great help on the whole matter of insurance coverage if visits to professionals other than physicians could be covered.

Senator LEAHY. Let me mention that we went into this at some length this afternoon at our hearing in Burlington, but at the risk, again, of somewhat of a leading question, can you see any sense whatsoever in the rules that prohibit payment for you bringing your children to a nurse practitioner?

Mrs. PORTER. Well, no, it wouldn't make sense.

Senator LEAHY. You have felt very good about the care, I take it, you received for your children?

Mrs. Porter. Absolutely, yes. My one daughter who has had serious problems, had been referred to a specialist in Burlington, but for routine hearing tests, ear infection treatment, Sue has certainly done a marvelous job.

Senator Leahy. I would state for the record, again, as I have several times today that I see no sense in the fact that third-party payment usually cannot be made to a nurse practitioner, and agree with you and I thank you very much.

Yes, sir.

Mr. Duffy. My name is John Duffy from South Hero. I'd like to point out the inconsistency in the policies of the insurance companies in that respect. Like Mrs. Porter, we are insured in a group and my employer is Vermont State College. We are not insured by Blue Cross yet all of our visits to the health center and services provided by VNA through them are covered expenses under our policy with another insurance company. We find that very fortunate and convenient.

Senator Leahy. And I take it also, Mr. Duffy, that you feel that for, certainly for a number of areas that utilization of a nurse practitioner is adequate for the type of medical care that you need?

Mr. Duffy. Right, and economical considering the cost of a trip from our south end of the island into Burlington at 10 cents a mile is still $10 a trip.

Senator Leahy. How far is a round trip, just for the record, from that end of the islands into Burlington?

Mr. Duffy. It's a 40-mile round trip.

Senator Leahy. Doctor.

Dr. Holmes. Just a fine point. I think that we are discussing reimbursement for nurse practitioners. I have heard discussion that reimbursement should be different depending upon who is providing the services. I think its important that the reimbursement be on the basis of the services provided regardless of who provides it.

Senator Leahy. Are there other—yes, ma'am.

Ms. Zehle. Elenore Zehle, I went through the screening program a year ago and Sue Heath referred me to Dr. Rubin, since I did not have a family doctor. Dr. Rubin, after further testing, suggested a surgeon who handled my operation in the hospital through the health center; this service was provided for me.

Senator Leahy. And did you feel that the care at each level which you received was good and adequate care, and that you got referred on at those steps where it was necessary to refer you on to somebody who perhaps was more expertise in the field?

Ms. Zehle. Yes, and they told me exactly what was going on, too, what Dr. Holmes said before.

Senator Leahy. Did you feel confident about what you were hearing and what you were being told about your own record?

Ms. Zehle. Yes, I did.

Senator Leahy. Thank you.

Mr. White. I'm Bob White; I work for the Vermont Extension Service, county agriculture agent here in Grand Isle County. As you know I worked in education and we do try to do a bit in health education. That's why I wanted to make a point of stressing that we can't cover every educational need of people in health, and I'm sure that many of the other people that work in the health center and in

the area are doing educational work, too. Just a few of the things we do do. Beverly Rock is our nutrition aid and I think foods are vital to health, and so we feel that we are doing a job with a few people. We are not reaching any percentage at all in the county, maybe 20 or 30 families. In our 4–H program we have physical fitness programs and food programs and we have done work in the area of drugs and drinking and smoking and harmful effect of those things. I guess the point I'd like to make is that in the whole health program in Grand Isle County I think some consideration might be given to the need for a stronger educational program to cover more of the people to, as a health preventive measure, and not helping people that are already sick.

Senator LEAHY. Anybody like to actually like to add something or refer to that?

Ms. HEATH. I would just like to add that a very important emphasis at the health center is the preventive component. I think this is one of the main reasons for our existence. Preventive services have been provided at no out-of-pocket expenses to the patient. This and health education are the cornerstones to helping people understand more about themselves and assuming more responsibility for self-care. The second part of that is providing the patients with their records. We haven't gotten into this with children but do see it as a goal. For each person who has a screening examination, a copy of complete information and recommendations is sent. For example, in the letter it might say, we found on your screening exam that you are 25 percent overweight and state that if you want to prevent high blood pressure risk, possible risk of heart disease or diabetes, then you need to lose 20 pounds. That's an individual health education focus. We don't know yet how effective its been. Its very hard to measure except some patients have come back and said, its one thing to tell yourself that you are overweight and its another thing to see it in black and white. I think Mr. White addresses another community issue and that is public education. Right now there are parent classes, preparation for parenthood, and child care classes going on, but that's just a small start and there are a lot of other health education needs, group needs.

Senator LEAHY. Incidentally, one of the things that I did not mention at the outset of the hearing tonight, when we leave here I will keep the record open for 2 weeks and during that time if anybody thinks of anything further they would like added to the record they can send it to me in the form of a letter at the Senate in Washington, and I will make sure that it is included as part of the permanent record.

Are there other statements anybody would like—yes, sir.

Mr. DENKINGER. I am Esty Denkinger. I am a farmer in Grand Isle and a refugee of some 4 years from urban areas where I have seen in two specific cases that I have been directly involved with millions of dollars spent without the achievable, tangible results that these people have accomplished on thousands, literally, and its with some of that background in mind that I'd like to ask Barbara—I think this ties in with the concern of the distance that we find ourselves here from excellent major health facilities in Burlington, at least, but about emergency facilities, do you really feel that you are

adequately equipped here to handle emergency type of things, major well, maybe not major, but certainly the type of things that would require fairly instant service rather than transport to the additional 30 miles to Burlington? In other words, do we have fairly adequate X-ray facilities, fairly adequate emergency room facilities, and this type of thing? Do you feel a need for this?

Mrs. ABARE. Are you talking about in relation to the health center, Esty?

Mr. DENKINGER. Yes. I'm asking do you have them and if you do not have them is this something that you really feel that you should have?

Mrs. ABARE. Well, you know, actually, we'd love to build a little Mayo health center up here, and I think the people in this county deserve much more than we have, but no, we do not have X-ray services for two reasons: One, we don't have the room in the present center; we do not have the X-ray equipment or the funding to buy it, and we do not have the staff, you know, the X-ray technicians. And, again, it would be a matter of someone to read the X-rays immediately and we don't have that person. I think for the record that everyone in this room knows how heavily we rely on our emergency transport services and our EMP and our first aiders, and this is an active program in each town in the county. And we have to be transported from Grand Isle 50 miles to Burlington; from the northern part of North Hero into Burlington is 60 or more miles round trip, and I don't see where these things will be available in the immediate future at the health center unless we suddenly, as I say, have a windfall. God knows what. We would very much like it. We would very much like to develop to a point of being able to have.

Mr. DENKINGER. Second comment, and really by way of commendation again, I guess that despite a good deal of previous association as a clergyman with people and with health care delivery services that I had never really realized how put off people are by the mystique that surrounds health care delivery things until I got out here and got to know a number of the type of people who are put off by this firsthand, and I would stress the need for a continuation of this, of the very personal one-to-one type of thing that you have been doing because I think you are rapidly reaching a section of the population that you would, that would normally not go near a health care facility short of imminent death. Doing very well on this, and I would ask to what extent are you being successful, I'm thinking, with older people on this who may not have ever had much experience with health care delivery things?

Mrs. ABARE. Well, I think maybe someone else could speak better to this. Let me just speak to it, then I'd like to refer it to Sue.

I think we have found here in the islands that we have to look at health care for older people in two ways, and I'm not going to speak about quality of health care they receive, but because there has not been a physician permanently in the islands for about 20 years people have set, older people have set up a pattern whereby they go into Burlington. It is a grocery shopping day. They go to the pharmacy. You see your physician. You get your feet care. You call on your relatives and come home, and it's a very important part not only of their medical program but their social program, and I think for the

reason that many people who are in this pattern have been reluctant to change it because they were really wondering how long we were here for, and you are not going to give up your association with a physician unless you are sure that an onsite health system is going to continue. And I think also too that we have to stop—I'd like Sue to speak to this—that you have to stop and think of the health problems of the 35-, 45-, 70- and 80-year-old person are different than some of you younger people. Sue, do you want to add anything to that?

Ms. HEATH. Yes. I think one of the difficulties that we have struggled with is that many of the health problems of the elderly are much more complex. If a person who hasn't been seen before at the health center comes in and they say they have a cough, I don't know if their cough is because of complicated underlying chronic lung disease or if they have pneumonia; or if they are going into congestive failure. So what we are trying to do through the health screening examinations is to establish a base for understanding what this person is like when they are well, and what are their problems when they are presenting as a well person. Then when this person comes in with an illness we then have more understanding of their illness. So until we get somebody's baseline data, providing quality care to the person who has a complicated health picture is difficult, and this has been our limitation. And, also, just in terms of my starting out with a pediatric focus and then changing to adult care where things are more complex I am going to limit what I am going to provide to a person until I have a full understanding of what is happening. That's my own audit on myself.

Senator LEAHY. I might ask along the lines of how much can be done? Ms. Davis, how is the system financed as it is now and how much is the cost per visit or have you broken it down to that?

Ms. DAVIS. Presently it's financed through several grants, patient fees and volunteer hours, the grants we have this year are a carryover of an HEW grant and health department funds. We have applied for some RMP funding and have applied for rural health initiative funding. We do believe that rural health care cannot be fully supported on a fee-for-service basis if we are talking about total preventive service. Our cost per visit in the first year of operation was $11.55 overall, and we don't know where that will go. That includes the screening services and laboratory services that we are also providing. I'd just like to add to the comment in relationship to the elderly population. I think the important part of the health center is the integration of home health services and the nurse practitioner Audrey who works with Sue at the health center, her major responsibility is home care. So our main way of reaching that population at this point is on a home-visiting basis, and Grand Isle County had a very high utilization of that particular service, I think that's partially a reflection of those elderly people who are significantly home bound and have a difficult time getting into medical care and the best way to reach them is on a home-visiting basis.

Senator LEAHY. Anybody else? Sue?

Ms. HEATH. I'd like to ask a a question of the audience. This morning we heard a lot of testimony about health centers in other rural

areas of the State where the base provider was a physician, and I haven't been in the county for a long time, but by what I am told, there have been a number of physicians who have come and gone out of the community for whatever reasons. I would just like to hear from some people what its like for them to use a nurse practitioner instead of a physician, what this means to them, what they see is the limitations because I think it is unique.

Senator LEAHY. Ma'am?

Mrs. FRECHETTE. I am Marcia Frechette from South Hero. I have two small children. Prior to the health center opening I used a physician practicing in Burlington for my children. I have a child who has many neurological problems and in the physician's practice it was, as you say—"What's wrong?—quick, in, out, and you have got 5 minutes to explain it." And with Sue we worked a long time, a lot of visits to establish that I had a child with borderline problems. There were things that could be done for him, but it was a lot of visits and a lot of long talking visits, an hour which you never spend in a physician's office over one child. You don't sit for an hour twice a week to establish what's wrong with your child. This has been a really important part of the care and also the educational process. This is what you can expect from the course of illness and if this happens do this, and if that happens do that, and it's all written out and there is a paper to take home. If you have any questions you can refer back to the paper or you can call the center.

Senator LEAHY. Did you find it an important thing to have access to that record?

Mrs. FRECHETTE. Yes; I have a piece of paper that tells me what to do. I don't have to rely on my memory, a lot of things have gone on in an office visit and its all written down so that I have got it all there when I get home, not just what I remember of it.

Mr. BONFANTI. Esty, I am not trying to one up on you. My name is Attilio Emilio Bonfanti. I am only going to speak as a person who has lived in the community and I think of as reflecting the attitude of a great many people in the community that you probably won't hear from. That is that we, my family and I, have used the health center on one occasion. We haven't used it as much as we should have or could have. We used it on one occasion. It was an emergency. They did an execellent job by us. They did a better job by us than we did by them. But, and I'm not trying to find any excuses for this. Its just that I, as the average person does, think they are too busy to take care of their health the way they should, but the very fact that they are here makes us breath easy, makes us feel better. We know they are available. And this is a feeling that a great many people continually express. Now, these are people that don't necessarily use the health center at all, but they are so grateful they feel so relieved that this anxiety isn't part of their life anymore. I just thought I'd throw that in for what it's worth.

Mrs. DUFFY. Barbara Duffy, from South Hero. I would just like to agree with our friend with the very long name from the back of the room. I think it makes all of us breath easier to know the center is here. I have two young children that have had chronic ear and upper respiratory problems. Some of their problems cannot be

handled at the center, but Sue and Dr. Holmes and the physician that cares for their allergies do it as a unit. As my children grow older they are becoming educated, not by me which is my job, but frequently children learn a lot better or understand more or are more willing to accept a rationale from someone that they like and identify with and someone that makes them feel better. And if Sue said, to them, no, you can't go to the ballet performance because you have an upset stomach and they say, but I want to go, she says, well, I'm sorry, you can't go. They just say, I don't feel very well anyway. If I had said you can't go they would have said, I have to go. Its an educational process for the children, and I think this is where possibly the educational process for everyone should be when they are young. These are things we overlook. Its easy to overlook these kinds of things. If you say, take your medicine and they say why, you say because I said so. They will do it but in many cases if they know why they should do it and then they begin to understand their own response to not feeling well. They are able to tell you before they are really in an acute stage of disease process, you know, they really don't feel well. Maybe they should go see Sue or Dr. Holmes and they have come to learn that this is a good place to go, to respond to the kind of care that they receive, and to be very happy when you say, OK, we are going up, to go up to see Sue and she's going to tell you what's wrong. You call up and Sue's not there today and Audrey is there and she's going to tell you what's wrong and you are going to feel better. They feel much more comfortable. I feel much more comfortable. I also take better care of myself because when I go up there and Sue says, well, you don't sound very good either. I say, well, you know, I have been up for 5 nights and she'll say, well, why don't we culture your throat while you are here, et cetera. This is kind of a parent trap which I may explain to some extent why you are probably getting more female adults than you are getting male adults because most of the female adults are taking care of the young children in this area and you take them up there and you yourself get some acute care and then you think about it and you think, well, I take my children up there. I tell them they really should take care of their body and maybe I should set an example.

Senator LEAHY. Do you use it for preventive care as well as——

Mrs. DUFFY. Yes.

Senator LEAHY [continuing]. The fact that you now have a sore throat?

Mrs. DUFFY. Right. We use it for preventive care as well as acute.

Senator LEAHY. Doctor, did you have an——

Dr. HOLMES. If I might address briefly the mom's comment about having an opportunity to talk for an hour, and what happens and why working in the islands is fun is because that's one of the very pleasant luxuries about it. The point I'm trying to make is that in this day and age on a day like today you can sit down and you can contemplate and you can discuss various alternatives for funding, manpower location and outcome in the abstract which is truly a luxury if you en-

joy taking care of people, and what happens is in my practice or I suspect in most practices there is a certain amount of time that you have available to address a patient partially because of the number of people in the waiting room which means that perhaps my practice is not properly fitted to the geography, you know, the population that it serves, and partially because I think my indebtedness per year to keep my solo practice office open is greater than the Champlain Islands Health Center at last count. So that what happens is because of the system I wind up practicing medicine as opposed to the system that Susie winds up practicing medicine is there is a financial element that we can't deny. And the point I'm trying to get at all the way around is that wouldn't it be a lot better if not only could we remove the financial burden or barrier from the practitioner, but in particular couldn't we move it from the people who have to look for care? As a physician it hurts a lot sometimes to see people 3 days too late when you know they didn't come in 3 days sooner because they didn't think they could afford it or to see them, give them a prescription and know that it probably won't be filled and knowing you can do nothing about it because of that financial barrier that is always present. If there was some way, some how you could do something, just eliminate that variable all together, call it whatever you will, whether its my office or Burlington or the islands everything would be better and then we could all sit and chat.

Mrs. FRECHETTE. It's more a question of, I think, attitude than time. It was an attitude where Sue was interested as a human being and interested in listening and saying, here's a mother. She spends 20 hours a day with this child. She sees something the physician implies, you don't know anything. We are being educated, I was educated to look at my child and evaluate what he was doing and saying, is it this or is it that? And Sue has educated me so that I can give intelligent reports back. The physician just didn't bother with this.

Senator LEAHY. Before we wind up, I was wondering if I could call on Audrey Noel for one moment. Miss Noel?

Miss NOEL. Can I answer from here?

Senator LEAHY. Certainly.

Miss Noel, I understand, and I don't mean to be putting you on the spot by calling on you, but it's a fairly informal hearing. In fact, I think it's only about the second time the Senate Agriculture Committee has had an evening hearing. The first time was one I conducted earlier on Bristol Cliffs in Bristol, Vt., on the Bristol Cliffs matter.

Miss Noel, as I understand it, you were a nurse and did not work for a number of years, but you are now taking the nurse practitioner training program, is that correct?

Miss NOEL. Yes, that is true. I had been out of nursing for 10 years, and then I had the opportunity to work for VNA and at the same time take an adult education course which has been completed and have been employed by VNA for 2 years. And I think at the time I came back I was debating, am I going to come back? Am I going to stay home? And this opportunity came up and it's really a, you know, a good way to get back into nursing—and I found nursing much more exciting than it had been 10 years ago when I left.

Senator LEAHY. Did you find it all that difficult to get back in?

Miss NOEL. Not really, not as difficult as I had been dreading for years that I just could not get—but I think it was a lot more to nursing than when I had left, but I really did not have, you know, did not have a hard time.

Senator LEAHY. Did you find that the talents that you had acquired earlier as a nurse, did they stand you in good stead? Did they give you a good foundation on which to work with the training as a nurse practitioner?

Miss NOEL. Yes, I believe they did. I think otherwise having, you know, come back into nursing and having a family and taking on the education component that it would have been too much at one time, but I think I did have a good——

Senator LEAHY. Is it safe to say that there are a lot of nurses like you who have been out of nursing for a period of time and have the capability of doing the same thing that you did, that is, take the nurse practitioner training program and come back in?

Miss NOEL. I feel certain that they could.

Senator LEAHY. And do you feel that you can then have something to provide, something to give in a program like the one here in the islands?

Miss NOEL. Do I feel that I have something to give?

Senator LEAHY. Yes.

Miss NOEL. I hope I have, you know, added something to the, you know, health care system in the islands.

Senator LEAHY. I know you have and as I said, I'm sorry to single you out in this, but I did want to make the point for the record that there is obviously a reservoir of talent. I do not know the statistics of people who have been nurses and then left the nursing profession to raise families or for whatever reason, but there is that reservoir of talent. I know a number of situations in the State of Vermont and I'm sure its the same everywhere else. Thank you.

Before we wrap up, was there anybody else who had something to say that I have missed or haven't called on?

Dr. RUBIN. I just want to say I think it would be impossible for a solo practitioner to provide the kind of care that the health council and the health center provided in this area, both in terms of education, availability, and financial viability for the practitioner himself.

Senator LEAHY. Thank you, Dr. Rubin.

Ms. WHITTLESEY. My name is Margaret Whittlesey. I am from North Hero. I'd like to just get back to what Mrs. Abare was saying originally about the way we got into this and our feeling of wanting to have some local input, planning for ourselves and being responsible for what takes place here.

I think this so-called nine angry women group was simply a response to the notion that someone could sit in a place 30 or 40 miles away and decide what was going to be good for us. We felt that maybe they did know many of the things which would be good for us, but that we knew a few things, too, and we needed to have a partnership.

I think it was a very fortunate situation for Grand Isle County that the Burlington Visiting Nurse Association was able to offer

services to each of the towns. We voted to make just a token financial contribution. In each of our towns, we were given the opportunity to have representation on the VNA board and this began to build bridges and made it possible for us to have Audrey employed full-time in the county. Then through the interest of Mrs. Davis, who has really done yeoman duty for us, we were able to identify some other ways in which we could expand the services here. I think the important thing to have come out in the record here is that there has been this local input. I don't know what the latest count is, but a month or two ago we had put in at the health center, not including the 24-hour evening, and the weekend coverage of our phone, we had put in better than 4,000 hours of volunteer time.

If the situation here is being looked at as a model, some of these components really need to be looked at because this means that we have done what we could, given of our talents where we didn't have the money to put into it. There has been this partnership and this has been the terribly important thing. I would hope that we would not get into a situation in the future where somebody is going to sit in some far away place and say, this is how the medical care is going to be planned, because I think it would tend to destroy what has been built here. I think you have heard this evening what it's about.

Senator LEAHY. Thank you.

Mrs. FRECHETTE. I was just going to speak to your idea of nurses who are out and possibly coming back to practice. Part of this will have to be when institutions take into consideration that there is a big pool of people, but we aren't in the Army, and they may have to change their staffing patterns and ways of getting nurses back into practice. There's a tremendous pool of nurses available in the country, but they can't work a 40 hour week and the crazy hours that the hospitals want to do or any of the institutions. Some of the institutions are going to have to change their staffing patterns to meet human needs.

Senator LEAHY. I know at least one nurse who would agree with you very very much. In fact, we should have called her as a witness here today.

Mrs. ABARE. May I mention one thing? I don't know if this county is unique with this problem, but it is one area that I have lived and worked in and have found that for every human service that we want we have to leave this county almost without exception. If you have—I work as town service officer and if I want to take someone for medicaid to St. Albans as I did last week I have to drive 90 miles round trip with them only to find out that the medicaid application was filed last August are just coming through now. If they need social security or any other human service we either go to St. Albans or Alburg, and it really is a serious problem when you live in a county 50 miles long as this county is. As you know, we touch New York and Canada and southern Vermont, and you find that there isn't a service available onsite within the county. And this is probably why this health program or health center has and does mean so much to us because it's just a beginning.

Senator LEAHY. One of the main reasons I urged the Subcommittee on Rural Development to come here is that these problems can be translated to the problems of some of the counties in Iowa or

North Dakota or even parts of California or Oklahoma or so many other places. These problems are not unique, but I am concerned that very often they seem to feel in Washington that they are and forget the fact that there are an awful lot of people in this country that live in a rural area.

I think in wrapping up, Betsy Davis, if I could just ask you a sort of wrap up question. What can Congress do to help? What should Congress do to help? Think of the lobbyists who would give anything to have a chance to answer a question like that.

Ms. DAVIS. I am flabbergasted. What an opportunity.

I think that what is significant is that you are here and have heard and I know that you will take a great deal back with you to Washington. I think the problem is multifaceted, certainly in terms of the traditional health care system, the political support that continues to support an archaic approach to delivering comprehensive care. I think there are some specific areas that we have talked about today in terms of Federal regulations that promote only physician delivered services, lack of reimbursement for nurse practitioners, no real approach to a system of care. And I hope that's what Congress will look at. No one can do it alone, whether its a physician or a nurse practitioner or whoever. Whatever financing we have, hopefully it will encourage a system of care and one that has responsibility to the people, an accountability and a system of audit. Whatever legislation we need to encourage that I'd be happy to draft it.

Senator LEAHY. It's also a fact that within those guidelines that areas are going to have to be able to tailor their programs to fit that particular area. In other words, the program that might fit in Grand Isle County might not fit in a northern county in the State of Oklahoma or whatever. Provided you had that audit ability and you have the——

Ms. DAVIS. Right. I think any system has to have some flexibility. I don't think there is any one approach, but the main thing is that it is a system of care, and I think audit of that system is probably one of the most important ingredients that is badly missing right now.

Senator LEAHY. Thank you. For the record, I will recess these hearings, and——

Mr. BONFANTI. I would like to make one last statement on the insurance. I think this is extremely important as far as we are concerned here in the islands. It doesn't relate to you, Senator, but it does to us. We have got a wonderful man in Montpelier as the commissioner of banking and insurance. This guy is really out to work in our benefit. If we swamp him with letters saying let's get the insurance companies to cover us in our important needs, rather than, for example, Blue Cross/Blue Shield which was started by the doctors, promoted by the doctors, and owned by the doctors, to pay the doctors. I am incensed that I have, that I pay in about $560 a year and I can't get a nickel's worth of coverage as far as the health center here is concerned. I feel I'm being gypped, and I feel that everyone who has health insurance is entitled to be covered by the types of things that can be taken care of by the people here in the islands. If we swamp the commissioner of banking and insurance with letters to this effect I think it will have some tangible results.

Senator LEAHY. You raise a valid point on the insurance question and we went into it at some length at one of our hearings this afternoon. I hope the news media was there. I hope that they will report it accurately and fully because I think it goes to the crux of this whole thing, not only the private insurance question but also the question of how medicare and medicaid payments and other types of third-party payments are made.

I will recess the hearings now. We will keep the record open for at least 2 weeks. Any of you who feel you have additional comments you would like to make, areas where you disagree or agree or have suggestions, send them to me at the U.S. Senate in Washington and I will make it part of the record. Any of you who have testified tonight, if you haven't filled out one of these things, please come and do so because we will send you copies of your testimony.

I can't thank you enough for coming out on a winter's night for this. It certainly shows your own commitment to your program here, but its extremely important for us in Washington because even though there may be some who have in the past felt that they have all the answers I think most of us realize in the Congress that we do not have all of the answers and that we don't even have all the questions. But we are trying to get them and the only way we can is in truly representing all of you and you help us do that and I applaud you all for taking the time, and thank you very much.

[Whereupon at 9:30 p.m. the Subcommittee on Rural Development adjourned, subject to call of the Chair.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

Prior to the hearing on February 16, 1976, Senator Patrick J. Leahy, requested various individuals; medical associations; special interest groups; hospitals; clinics; and others to present their views on the problems faced by the rural resident in obtaining health care and also on the problems faced by those who are trying to administer care to the rural resident.

The information on the following pages is a representative sampling of the response, received by Senator Leahy, to these very important questions.

STATEMENT OF M. H. LAUNDON, PRESIDENT, MOUNTAIN VALLEY HEALTH CENTER, LONDONDERRY, VT.

I. INTRODUCTION

The Mountain Valley Health Center will be an ambulatory health care facility located on Route 11 in Londonderry, Vermont, providing primary health care for the residents and other homeowners of the six Townships of Landgrove, Londonderry, Peru, Weston, Windham and Winhall.

The Board of Directors and its duly organized committees for construction, operations, recruitment, fund raising, public relations and Allied Services together constitute the planning body for the project. The concept has received the official endorsement of the Selectmen of the six townships and of the public via Town Meetings.

The Center is a non-profit organization with tax exempt status (Certificate No. 23461) and has received certification for third party payments, having been approved by the Comprehensive Health Planning Agency of the State of Vermont.

Initially, one physician and one nurse practitioner will perform primary care services. There will be X-ray equipment and a small laboratory for simple tests. There will be careful maintenance of patient records. Attention will be given to preventative medicine as well as the care of the sick.

House calls and hospital calls will be made where appropriate. Services will be available on an "on call" basis nights and weekends.

The Center will also be a base and provide offices for Allied Services such as Visiting Nurse, Mental Health and Council for the Aging. It will continue to sponsor the Well Baby Clinic already promoted by the Mountain Valley Health Council. The present active Rescue Squad will provide ambulance service to bring people to the Center and also to transfer them to a hospital if needed.

II. EVIDENCE OF NEED

The Mountain Valley Health Council was formed to answer the concern of residents of Landgrove, Londonderry, Peru, Weston, Windham and Winhall, over the lack of adequate health care available in the area.

The population of these six towns is comprised of two separate entities, namely, permanent or voting residents, and vacation home owners. No official census figures are available for this population as a whole but it is estimated to be in excess of 10,000 people. This figure is computed by multiplying the number of tax paying units on the Grand List of each town (over 3,000) by a factor of 3.6 people per home. The 3.6 factor was recommended by the Bennington County Regional Planning Commission.

A strong expression of need for the Center is the fact that over 900 donors made contributions to the Center before construction.

The area is primarily a recreation center for hunting, fishing, hiking, camping and skiing. There are four major ski developments: Stratton, Magic, Bromley and

Timber Ridge. Availability of a neaby facility to handle ski accidents is an important factor in assessing the need for the facility. On a given day in the winter there may be as many as 10,000 visitors.

With guidance from the Connecticut Valley Health Compact, the Dartmouth Medical School, Department of Community Medicine, and using the resources of various health agencies, an in-depth study was conducted in 1973, by the Amos Tuck School, Dartmouth College, to assess the health care needs of the area.

The study covered:

1. Population—growth and breakdown.
2. Area resources.
3. Area growth and development.
4. Geographical restrictions.
5. Physician utilization.
6. Hospital utilization.
7. Medical services utilization.
8. Interviews with residents and transients on their experiences in obtaining health care.

The study determined the problems of health care delivery in these six communities are serious, immediate, and generally recognized to be—

1. Inadequate physician coverage—only one local doctor, Dr. Elizabeth Pingree, practicing in the area and approaching retirement.

2. Topography—The "Mountain Valley" is a natural bowl surrounded by high mountains such as Stratton (3936 Ft.), Bromley (3260 Ft.) and Glebe/Magic (2944 Ft.). Winter travel is difficult and hazardous in this area which is generally known as the "Snow Bowl".

3. Distance from physicians: Under ideal conditions people needing attention are faced with a drive of at least a half hour in any direction. This fact inhibits people, particularly the elderly from seeking care except in an emergency, and seriously restricted attention to normal medical requirements. The Center is on a main road (Route 11) centrally located in the Mountain Valley area.

4. Lack of available physician in outlying areas: The few doctors practicing in adjacent areas were hard pressed to fulfill the needs of their local residents and were therefore reluctant to take on new patients outside their community.

5. Crisis care is prevalent: Residents wait until critically ill before seeking care. This factor applies to adults and children. Therefore normal patient-physician relationship with attendant medical health records is rare.

6. High emergency room usage: Residents rely on hospital emergency room care for non-emergency conditions which should be handled by a doctor's office. This results in overcrowding of hospital emergency service, long waits and sporadic rather than regular attention to patient's needs.

7. High hospitalization rate results from delay in seeking early care due to lack of preventive medical attention.

8. High medical costs due to a combination of factors:

Over use of emergency room.

High cost of transportation to existing facilities.

Time spent seeking medical service which often means loss of wages for hourly workers.

Toll calls to physician.

9. Lack of follow-up by residents of office visits or Lab work because of inconvenience of making another trip to physician.

10. Visiting Nurse Service poorly utilized. This service relies on physician referral. The area has no central referral and outling doctors are not oriented to the availability of the Visiting Nurse service in this area.

11. Mental Health care is on a limited base only.

12. Senior Citizens have no programs available.

13. Ambulance Service. An excellent Rescue Squad is available but this service is often required to make trips to outlying hospitals for care that should be available locally, and leaves the area not covered while on these extensive trips.

All of the above factors produce a serious situation for the communities which can be summarized as:

1. Lack of primary care.
2. High hospitalization rate.
3. High medical cost.
4. Poor utilization of Allied Services.

The Mountain Valley Health Center will answer the medical needs of residents and vacation home-owners by offering a readily available centrally located fa-

cility which will provide comprehensive coordinated primary health care including:

1. A physician.
2. Paramedic assistance.
3. X-Ray.
4. Laboratory facilities.
5. A base for Allied Services—Visiting Nurse, Mental Health, Council for the Aging, Well Baby Clinic.

The facility is now under construction and should be in full operation before mid 1976.

Dr. Roger Fox, formerly Assistant Medical Director of the Beth Israel Hospital Ambulatory Center and Medical Director of the hospital's Home Care Program, has been engaged and will start practicing from temporary facilities January 1.

III. PROJECT OBJECTIVES

The primary objective of the Mountain Valley Health Center is to improve the level of health care by providing an ambulatory health care facility offering primary health care for Landgrove, Londonderry, Peru, Weston, Windham and Winhall.

The Center will serve as a base for the coordination of Allied Services and will utilize the Londonderry Rescue Squad. It will also offer on site training programs for the Allied Services personnel so that the latest methods and technologies of medicine can be applied to local needs.

The Center will serve as a service facility for those psychiatric, obstetrical and pediatric specialists who are located in the surrounding areas by programmed visits to the Center. The same is true for the orthopedic specialists whose services are in great demand during the ski season.

Public education will be provided by bulletins prepared by the doctor and by meetings and lectures. Programs designed to deal with the changing needs of our fluctuating population will be developed. A health education specialist will be appointed as soon as feasible to enhance these efforts.

The Center will establish patient health records with a "problem oriented" base coordinated as much as possible with systems now in use by surrounding hospitals. Particular attention will be given to completeness to help guard against the misuse of drugs.

The Center will operate as a satellite facility for the Department of Community Medicine of the Dartmouth Medical School. Our physician will have consultation and referral privileges at Mary Hitchcock Memorial Hospital, Hanover. All staff members will be able to avail themselves of continuing education facilities there and elsewhere. The Center will serve as an outreach education center for medical students from Dartmouth and possibly other institutions.

The specific objectives of the Mountain Valley Health Center can be briefly summarized as follows:

1. Provide comprehensive primary health care for the citizens of the area.
2. Train administrative and professional personnel.
3. Coordinate Allied Services.

The immediate problems and objectives are:

1. To bring the physician into the area so that he can work with the Board on establishing job descriptions, operational procedures and recruiting.
2. To give the physician an opportunity to become familiar with the area and to establish relationships with the community and outlying doctors and hospitals.
3. To hire and train personnel.
4. To develop a coordinated method of communication for the public to reach various Allied Services.
5. To develop a better and more coordinated method of dealing with ski related accidents.

IV. PROJECT METHODOLOGY

The Center itself is now under construction and should be ready for occupancy in mid 1976.

PHASE I.—Dr. Roger Fox will move into the area. He established his residence in Weston on November 1. He will devote two days a week to working with the Board on all phases of development.

PHASE II.—On January 1, 1976, the physician assisted by a nurse practitioner and part-time secretary will start to practice in temporary quarters which have been rented in Londonderry. These quarters must be furnished with equipment

which can be later moved. This period will last until the opening of the Center about July 1, 1976.

PHASE III.—Starts when the Center becomes fully operative, with a staff consisting of a physician, a Nurse/practitioner, a Lab assistant, Receptionist/Secretary and part time Administrator.

V. EXPECTED RESULTS

The prime objective of the Mountain Valley Health Center is to serve the public by raising to a high level the medical care of the individuals in the community over a long period of time. Over the next 1 to 5 years we expect to:

1. Have a well organized creative and contributing Board of Directors with representation from all social, economic and geographic groups.
2. By good performance have created a community pride and enthusiasm for the Center's work.
3. Have a competent medical staff sufficient to provide the most up-to-date medical services.
4. Have an efficient and trained administrative staff.
5. Have functioning coordinated programs for Allied Service with strong volunteer back up.
6. Have realistic and attainable goals and objectives for each department and individual with well defined responsibilities and accountability.
7. Have functioning a program to communicate with the community on all matters pertaining to public health, preventive medicine, and primary care.
8. Have comprehensive patient medical records useable by supporting facilities.
9. Be financially sound with resources available for "pay as you go" expansions.
10. Be a leader in programming and encouraging area programs to solve health problems.
11. Be an example to and will have assisted other communities in establishing similar health centers.

VII. CONTINUITY

The Mountain Valley Health Council is a permanent community organization and through its Board of Directors will be responsible for the plans and operations of the Center on a continuing basis.

The operation will be financed by income for services rendered and rental from Allied Services. Fund raising will continue annually to cover operating deficits, repay debts and build an endowment for the future.

VI. EVALUATION

As a community primary health care center, we are responsible and accountable to the public, to our financial sources, to Government regulatory bodies and to the medical community. Thus it is important that our operations be evaluated in their entirety at appropriate times and each of these groups reported to.

It is our plan to have a yearly presentation and discussion of the degree to which the Center has provided the care required by the people of each township. This will be done in the yearly Town Meetings and will be on a call of the meetings.

Yearly, or more often if required, the Center will make financial reports to each of its financial sources including individual donors. In addition, on a 2 to 3 year basis, we plan to ask the Tuck School of Dartmouth College, who did our original feasibility study, to review our performance and report on the degree to which we have fulfilled the needs as defined by them and developed since.

All reports required or requested by regulatory bodies will be supplied with requests for suggestions in terms of how we are performing compared to similar units in our region.

On an on-going basis we will ask the Dean of the Dartmouth Medical School to designate an appropriate faculty member to evaluate the standard of medical care we are providing and when appropriate we will ask them to appoint a medical committee to fully evaluate and report to our Board on the level of primary health care we are providing our communities.

VIII. BUDGET

Our accountant, Roland E. Scott, Inc. of Bellows Falls, Vermont, has prepared the enclosed Cash Flow Projections which cover Phase 1, 2 and 3 of our plans.

Please refer to Section IV—"Project Methodology". They cover the period from October, 1975 through June, 1977.

It should be noted also that there are separate cash flow projections for our Capital needs and Operating needs for each of Phase 1, 2 and 3. It should also be noted that for the Capital projection the Line *L* "Cash available at the end of the period" (monthly) is a running total. This is done because we have the funds available for capital expenditures either in hand as cash or pledges or available under our mortgage agreement with the Bellows Falls Trust Co. Line D—mortgage from Bellows Falls Trust Co. shows the months in which this is drawn down.

Please note also that the "Receipts available from current sources" are actual funds in hand, pledges and the bank mortgage. No projections are made for funds hoped for or expected from future local fund raising or grants.

The "Capital Requirements" are known and fixed by contracts with our builder and equipment suppliers.

The Cash Flow Projections—Operating Requirements again cover each of Phase 1, 2 and 3 individually. As mentioned above, Line NN—Additional Cash required is non-cumulative by month. By adding this item for each month in each "Phase" the totals are as follows:

Phase 1—Planning—October, 1975 through December, 1975	$7,250
Phase 2—Pre-operational—January 1976, through June 1976	25,250
Phase 3—Operational—July 1976 through June 1977	32,250
Total additional cash required (operations)	64,750

It is this amount that we must raise to cover operational start up cost through June of 1977. Possible sources are State or Federal assistance or grants from Foundations whose interest is in primary health care in rural areas.

It should be noted that the Capital Cash Flow Projection shows in Line L a surplus of $13,900. This could be transferred to operating funds if they are not required for contingencies in our capital expenditures. We have no provision for this in our capital budget.

In the Cash Flow Projections—Operations there are certain fixed expenditures beyond the reasonable control of the Council in providing the services required. However, the most important element in reaching operational financial success is the amount of income from medical service billings. The Council does, to some extent, have control of this by providing services that enough people need and can pay for. With no operating experience as a guide, projections are difficult and must be considered within a broad probability spectrum. The Council has consulted with all the neighboring primary health care centers who would share this information and engaged J. T. Henderson, formerly Administrator of the Ottauquechee Health Center in Woodstock, Vermont to study the Tuck School projection of 1973 and using information from other clinics, to advise us on the rates and number of patients we could reasonably and conservatively expect with only one physician full time with supporting staff.

The figures used in our projection are those J. T. Henderson recommended as an average including provisions for services to those whom we bill at less than standard rates and a provision for uncollectibles. A further study and updating will be a high priority for Dr. Roger Fox in Phase I.

Please note also that in Phase 3 provisions have been made for the services of 2 orthopedic surgeons to handle on weekends in the ski season the patients with ski related injuries at Bromley, Magic and Timber Ridge ski areas. The care of ski related injuries is a major problem for the Mountain Valley Health Center to solve. Stratton Mountain has its own Carlos Otis Clinic staff, on week-ends, provided by visiting orthopedic surgeons from the Harvard Medical School, Cambridge, Mass. We are responsible for Bromley, Magic and Timber Ridge areas which together represent the same number of skiers as Stratton. There may be as many as 5000 skiers a day at these three areas. It is obvious that our single physician cannot care for injuries from these areas and additional help will be required.

Provision is made for a Part Time Administrator. It is felt that an operation of this size cannot afford initially a full time Administrator. Our plan for a part time Administrator was decided on reluctantly and only because of our serious operating short-fall. We strongly believe that our start-up and long term operations will need a strong full time Administrator particularly as we grow in services. If we perform better than we expect or if we can obtain outside financial assistance, first priority will be given to hiring a full time Administrator at a

salary anticipated to be between $12,000 and $16,000 per year. This is $6,000 to $10,000 over our present provision of $6,000 for a part time Administrator.

It is obvious that beyond the "Additional Cash" we will need for operations according to these projections, the Council must continue to raise funds to repay the mortgage loan as soon as possible to reduce or eliminate the need for generating operational funds to cover interest and loan reduction. We believe that by raising as we have, over $170,000 in gifts and pledges before a building was in place and before any operation started there is a good probability that through gifts and bequests we will be able to raise this amount over a ten year period or sooner. Success will now depend on performance and not a concept as in the past.

STATEMENT OF ELLEN DORSCH, CO-DIRECTOR, THE GREEN MOUNTAIN HEALTH CENTER, BRATTLEBORO, VT.

The Green Mountain Health Center (GMHC), now in its third year of offering clinical services in Southern Vermont, is a community based center emphasizing health education and prevention. It was developed by local people who recognized that in spite of a very adequate hospital, an outstanding private mental health facility and a fair supply of physicians, there were still many persons who did not benefit from the system that existed.

As in other areas throughout the country, those most adversely affected are persons with low income, self-supporting youths, and new arrivals to the area. For these persons, many of whom are ineligible for, or unaware of, third party benefits, medical care is sought only when problems become critical. This, of course, is detrimental to their health and increases the ultimate costs of health care.

In order to provide an answer to this problem, the Green Mountain Health Center was opened in November 1973. Our goal is to become a vital part of the health care delivery system in the area. One objective is to provide a first line of defense through early screening and detection of disease. Also, the center operates as an effective referral instrument to more specialized health facilities when more serious problems are detected. Another objective of the health center is to fill the gap in health education services through the use of paramedical personnel, community college courses, multi-media information packages, and community outreach. GMHC hopes to broaden its impact in the community by working with existing agencies to improve available service and establish new services to better meet the needs of the community.

One of the important facets of this health center is the involvement of volunteers. These include: physicians, paramedics, laboratory technicians, educational consultants, accountant, lawyer and many others. These people provide many hours of service which could not otherwise be made available without involving great expense.

A major focus of the Center is health and patient education. Each clinic includes a program of educating patients in good health practices as well as providing needed treatment and screening. This is largely carried out by paramedical personnel during visits. It is hoped that these encounters and the interest generated from them will encourage people to seek further help in understanding their total health situations.

We are instituting programs in schools in our area to educate young people about health and their bodies. Another new program is aimed at parents and professionals who work with youth.

Those of us involved in the health center feel that although we have been able to serve a number of persons in our area, we can play a greater role in the community. The GMHC can act as a focus of manpower training and public health education for persons needing this most.

We have had the assistance of the Dartmouth Medical School Department of Community Medicine, the Connecticut Valley Health Compact, the Public Health Service, the Public Health Nursing Department, and other agencies in our community.

STATISTICS AND FACTUAL INFORMATION

I. Screening Clinics

Until the termination of the State Van program, GMHC did periodic screening for Glaucoma, Hypertension, Anemia and Diabetes. In October, 1975, in a two

day screening program, we saw 130 people, 30% of whom were referred to private doctors, or our clinic, for further evaluation or treatment.

We have worked with the American Cancer Society in providing pap and breast clinics and are organizing, with the local Council on the Aging, a series of pap and breast clinics to be done in the rural areas, instead of downtown Brattleboro.

II. Venereal Disease Detection and Treatment

GMHC is part of the Vermont Department of Health's V.D. program and does most of the screening in Southeastern Vermont. We get referrals from agencies in New Hampshire as well as Vermont, and work closely with the Brattleboro and Vermont Public Health Nurses.

Our V.D. statistics for the last two months are:

November, 1975: G.C. Cultures (24) 3 positive, 21 negative; V.D.R.L., 10, all negative.

December, 1975: G.C. Cultures, 19, all negative; V.D.R.L., 6, all negative; F.T.A., 1 negative.

III. Patient Load

We have two evening clinics each week and see approximately 12 patients per clinic. We can handle 16 patients per clinic. Each patient is seen first by a paramedic, who takes a history, answers questions, explains lab work or exams, and does simple examinations. Then the patient sees the doctor who makes the final diagnosis and prescribes treatment.

IV. Financial Support

The GMHC is a non-profit, tax exempt corporation. We have received two Housing and Urban Development grants of $1,000.00 each through the Town of Brattleboro, for improvement of our physical plant.

A number of local residents have contributed generously to the Center along with various church groups, such as The Putney Friends, and the West Village Meeting House.

We charge our patients on a sliding fee schedule and in a few cases, where a patient cannot pay, we arrange a barter system of work for services. Some patients, because of the low fees, donate a few dollars to the clinic.

The Vermont Department of Health reimburses us for all V.D. related visits and supplies us with the needed lab supplies. We accept Vermont Medicaid.

GMHC has received two major grants from Federal sources. Presently we are operating with a $40,000.00 grant from the Public Health Service. This grant pays the salaries of the two Co-Directors, the Health Education Co-ordinator, bookkeeper, Receptionist-Secretary and the Physician's Assistant who acts as Medical Director. (This P.A. is the only P.A. working in the Brattleboro area. He will work part-time with us and part-time with a local doctor. We hope he will be an example to the rest of the general and medical community so that Brattleboro will utilize more paraprofessionals.) The PHS grant also pays for operating costs of our building, plus some office expenses, but not for patient services.

The Regional Medical Program grant which terminated October, 1975 was a $5,000.00 grant providing for a part-time Health Education Co-ordinator and a Membership Co-ordinator, plus money for screening clinics, educational materials, etc.

V. Volunteers

Except for 1 full-time and 5 part-time employees, plus two VISTA volunteers, the rest of the workers at the GMHC are volunteers. There are 8 volunteer doctors, 7 from the staff of Brattleboro Memorial Hospital and 1 from Rockingham Hospital. There is a Nurse Practitioner and 21 paramedics, who are community people who have been through our eleven week training program. We have 3 lab technicians from Brattleboro Memorial Hospital who work in our small lab, plus a volunteer psychotherapist, clinic co-ordinator, and receptionist.

VI. Outreach/Educational Programs

1. Community College of Vermont—*Self-Health:* a credit course taught by various people at GMHC.

2. We are making a video of a patient's visit to GMHC to show to various local groups. In this way, we will talk about the Health Center and also educate people about the use of paramedics and the importance of health education.

3. *Anatomy and Physiology for Elementary School Children:* This is a program for grades 2–8 to teach children about the various systems in their bodies, how they work and what they do.

4. *Talking to Children About Sex:* This is a short workshop for parents, teachers, and other adults who work with children. It is to discuss the problems and find some comfortable solutions.

5. *Nutrition Workshop:* This is being organized in conjunction with other agencies to provide information on diet, recipes, and general nutrition.

6. *Birth Group:* This is an on-going group for expectant parents, which covers breast feeding, diet, home and hospital birth, breathing exercises, post-partum problems and joys. Its purpose is two-fold: to provide factual information through resource people and research, and to provide a support group for expectant parents.

7. *Psychotherapy:* Individual and group work with volunteer therapists using our sliding fee scale.

SLIDING FEE SCHEDULE

Average weekly income	Number of dependents						
	1	2	3	4	5	6	7
1st visit:							
$215 and up	$10	$10	$10	$10	$10	$10	$10
$195 to $215	10	10	10	10	10	10	9
$175 to $195	10	10	10	10	9	9	8
$155 to $175	10	10	10	9	8	8	6
$140 to $155	10	9	9	8	8	6	6
$125 to $140	9	8	8	8	6	6	4
$110 to $125	8	8	6	6	4	[1] NC	NC
$95 to $110	8	6	6	4	NC	NC	NC
$70 to $95	6	6	4	4	NC	NC	NC
$55 to $70	6	4	NC	NC	NC	NC	NC
$35 to $55	4	4	NC	NC	NC	NC	NC
$35 to 0	3	NC	NC	NC	NC	NC	NC
Subsequent visits:							
$215 and up	7	7	7	7	7	7	7
$195 to $215	7	7	7	7	7	7	6
$175 to $195	7	7	7	7	6	6	5
$155 to $175	7	7	7	6	5	5	4
$140 to $155	7	6	6	5	5	4	4
$125 to $140	6	5	5	5	4	4	3
$110 to $125	5	5	4	4	3	3	NC
$95 to $110	5	4	4	3	NC	NC	NC
$70 to $95	4	4	3	3	NC	NC	NC
$55 to $70	4	3	NC	NC	NC	NC	NC
$35 to $55	3	3	NC	NC	NC	NC	NC
$35 to 0	2	NC	NC	NC	NC	NC	NC

[1] No charge for V.D. related visits.

Note: Additional charge (our cost) for any lab tests or medications that we must pay for. Please see receptionist at desk at the end of your visit. College students not on financial aid will be charged $8 for a 1st visit and $5 for a subsequent visit.

STATEMENT OF DR. EDWARD E. FRIEDMAN, M.D., UNIVERSITY OF VERMONT, DIVISION OF HEALTH SCIENCES, DEPARTMENT OF FAMILY PRACTICE, COLLEGE OF MEDICINE, BURLINGTON, VT.

I am wrting you in reference to your Newsletter in Winter '75. With the College of Medicine at the University of Vermont having established a Department of Family Practice we have developed a Model Family Practice Unit in Milton, Vermont. The primary purpose of the facility was to provide a health delivery system to a medically underserved area, offering comprehensive care and provides a prompt access to an organized system with defined standards of health care. Almost as important as this reason is the availability of this unit to train residents in the Family Practice program. They are exposed to a good brand of Family Medicine, constantly being made aware of the patient as a total human being and the family as a unit. We are concerned with the psychological, social and economic problems of the patient as well as their medical diseases and disabilities. These young physicians are encouraged to stay in Vermont or in the northern New England area to practice in medically underserved areas. Though the program is young, we have already placed physicians in the state.

Because of the design of the Model Unit and the educational resource it serves, financing the operation is more difficult that those facilities which are primarily

service-oriented. It is costly to educate young physicians because it takes faculty, space and extra time. The Unit is interested in developing more sites at this time to serve communities, provide a complete health service and to train students and postgraduate trainees. The problem of underserved areas as well as replacement of the aging Family Practitioners is an obligation that the Family Practice program addresses in this state. What help the Federal Government can give in financial and moral support would expedite the return to those rural areas of the type of physicians they so urgently need.

STATEMENT OF DR. RICHARD M. NARKEWICZ, M.D., PEDIATRIC ASSOCIATES, SOUTH BURLINGTON, VT.

Thank you for the opportunity to offer some written testimony in regard to adequate health care in rural areas and the problem of poor health manpower distribution which primarily affect rural areas.

As the Vermont Chapter of the American Academy of Pediatrics chairman of the EPSDT program in Vermont, I feel that this particular method of health care offers a tremendous advantage and a tremendous opportunity in its application in the state of Vermont. We have been very innovative in the implementation of this particular program which is Early Periodic Screening Diagnosis and Treatment. The following could be interpolated as the key to the success of the EPSDT program in Vermont and are the reasons that it is functioning more effectively here than in other parts of the country:

1. The EPSDT co-ordinator in Vermont is a health professional (RN) and is sensitive to the health needs of the people in the community setting.
2. There are twelve outreach workers employed by the Health Department that see every physician in Vermont who provide well-child services to children age 0–21. They see every agency and organization in a defined area that has any impact regarding preventive health care for children.
3. The Health Department and Director of Medical Services Division is now administering and supporting the implementation of EPSDT with the assistance of all agencies, who are in turn communicating together verbally on a monthly basis.
4. The Vermont Chapter of Pediatrics has fully endorsed the EPSDT program in Vermont and works hand in hand to assist in facilitating the protocol of screening and gathering of statistics which are continually needed for the Federal Government.
5. The forms and informing material used to describe the activities of EPSDT serve as claims form as well as forms from which one can extrapolate the necessary date for statistical federal reporting.
6. An all out effort is made to channel children into an ongoing comprehensive health care system, at the same time giving families the accurate information about what their children age 0–21 should be receiving for health care and how often this should be happening.

I can certainly see that this type of a model type health care system endorsed by the pediatricians of the state can serve to increase the problem of poor manpower. Since some of the screening and referral can be done by paraprofessionals under the direction of the health care professionals, it would be a good opportunity to more efficiently utilize the available physician manpower.

I hope your hearings which will be conducted by yourself and Senator Dick Clark of Iowa will help in the problem as we see it as it applies to health care in children in the State of Vermont.

STATEMENT OF DR. T. A. COLLIER, M.D., PRESIDENT, ADDISON COUNTY HEALTH COUNCIL, INC., MIDDLEBURY, VT.

The purpose of the Addison County Health Council is to provide an ongoing forum for the exchange of information and experience, and for discussion of common problems among all providers in the county. It is hoped that the recognized need for some sort of voluntary association can be met with the design and development of an organization that can identify problems common to providers, and be helpful in resolving some of these that can not be managed by a single provider.

Membership in the council is open to all residents of Addison County interested in and/or involved in providing health care or related services. Eight of the twenty trustees are selected from the general membership at an annual meeting each February. The other twelve are selected by the three member agencies—Porter Medical Center, counseling service of Addison County and the Addison County Home Health Care Agency.

The Addison County Health Council was organized in 1970 to enable all medical and paramedical personnel providing health care in the county to exchange information, discuss common problems and to resolve by a co-operative effort those community health problems that could not be managed by any single provider.

It soon became apparent that the highest priority need was for a single, county-wide health-care information system serving not only all physicians, nurses, and other providers of health care in the county, but also the general population, directly.

This health-care information system, it was agreed, should have four aspects: 1) a personal health record, in a common format, for every member of the community; 2) a medical library service for all health care providers in the county; 3) a co-ordinated program of professional education and information for doctors, nurses, ambulance service volunteers, and other health care professionals; 4) a program of public education.

A beginning has been made on each of these four aspects and we present here, for each in turn a brief explanation of the Council's intent, the need, and what has been accomplished so far.

1. PERSONAL HEALTH RECORD

The Council proposes to provide, in time, every resident of the county with a personal medical record, to be available in three places: a) a central storage and retrieval file in the local hospital, b) the office of the physician who prepared the record, and c) in the wallet or purse of the individual himself. (The last includes a plastic wallet case, miniaturized xerox copies of the patient's Permanent Problem List and his Identification Data Base.)

The advantage of having such a record available almost instantly during health emergencies scarcely need comment. But other advantages, which in sum may prove even greater, will create, we believe, a vastly strengthened system of health care in the entire community and a significantly higher median level of diagnosis and treatment for its residents as a whole. For every person, a record is created and stored in the same format, a format which is, itself, a tool in the process of establishing diagnosis and planning treatment and which will be used with increasing uniformity by all health-care providers in the county. The record system adopted is Dr. Weed's Problem Oriented System of medical action. This procedure produces a Problem-Oriented Medical Record (POMR) whose summary data, suitably miniaturized and carried by the patient, has been named by the Council the Pocket Health Information System (PHIS).

The Problem-Oriented System encourages management of patient care by all health-care providers in the same four-step procedure: data gathering, problem identification and definition, management plan and record of management, and follow-up (Data Base, Problem List, Initial Plan, and Follow-up). This common procedure and its resulting record (POMR) not only enables any health professional to:

Quickly scan the medical history,

Note peculiar health problems or specific allergic reactions, and

Audit the previous treatment procedures by his peers; but particularly it encourages diagnosis and treatment according to a logical, step-by-step procedure which in time becomes so habituated as to become second nature in the professional's mind.

Moreover, the collected data on each patient is stored in a central location (Porter Medical Center) where it will be readily available to any physician, dentist, or nurse when needed either in emergencies or for normal periodic treatment—the patient having earlier signed the release forms.

Under an initial grant for the 1973 calendar year, from the Northern New England Regional Medical Program (Grant in the amount of $18,755.00); all four of the major providers—hospital, nursing home, mental health unit, and visiting-nurse agency—have been using the POMR, after being trained in its use by the Council. In addition, seven of the County's practicing physicians are committed

to the use of the Record in their practice. One of these physicians has been envolved in an intensive program of Problem Orientation in association with University of Vermont's Given Health Center.

At the present time the Council is helping to develop a system of community wide health care audit as well as county wide screening standard. (Funded by a secondary grant from Kellogg through Council and Porter Hospital.)

2. MEDICAL LIBRARY SERVICE

To meet the need of Porter Medical Center for a hospital reference library, the Council provides medical library services under contract with the Center on an annual, renewable basis. It applied and received a grant under the Development Service program of Dana Library of the University of Vermont College of Medicine supported by Public Health Service. (Amount of this grant was $3,200.) This reference library will continue to be developed as the core of a county professional health information service which will also—

(*a*) provide a catalog of all medical reference materials—books and periodicals—in the County that institutions, agencies, and physicians are willing to share;

(*b*) place the most relevant reference works in the physicians' offices and at other key locations where problem solving occurs;

(*c*) conduct literature searches both inside and outside the County upon request by any health provider in the community;

(*d*) supply on a regular basis photocopies and contents pages of medical-specialty journals as requested by physicians or by health-care agencies;

(*e*) recommend to each provider, upon request, specific reference books and periodicals that are judged most likely to be useful in his work; and

(*f*) offer slide and film projectors and arrange the loan or rental of in-service update films for screening before groups of medical professionals.

The library selection committee, acting as a Council advisory panel, will not only select and monitor the holdings of the core library, but will also continually explore methods for improved access by all health providers and by the general public in the community.

3. PROFESSIONAL EDUCATION AND INFORMATION

The Council recognizes a need for continuing coordination of the county's health-care providers in adopting the Problem-Oriented System of diagnosis and treatment. Thus it proposes not only to present, on a continuing basis, further training in the procedures of making and updating the POMR, but also to provide convenient access to the reference materials (books and periodicals) essential to the assessment and the "initial plan" steps in the Problem-Oriented System of medical action. Since this problem-solving actually occurs not in the medical library but in the physician's office, in the hospital emergency room, nurses station, laboratory, X-ray department, obstetrical suite, or in the nursing home, as many reference materials as are appropriate will be available at those locations. Consequently, the Council, proposes to offer relevant, immediate-access reference works at each of those places—in each physician's office, at each of seven hospital and nursing home stations and at the Addison County Counseling Service and Addison County Home Health Care Agency. In addition to the establishment of a core library in the hospital, the Council will continue to coordinate health education courses for nurses and for such paramedics as the emergency medical technicians who man the ambulances. For example, the Council presented twelve-session coronary care courses in 1973 and 1975 which were completed by more than one hundred and ten students. The Council also provides reference library and audio-visual back-up to the in-service educational programs offered the several staffs in Porter Medical Center.

Similarly, the Council assists, and where appropriate, furnishes supportive material to, local health education efforts at both the secondary and college level; for example, to nurse's aid trainees in the local vocational school and to the pre-med students. Each year the Council offers summer employment through the Student Work Assistance Program to nursing and medical students to allow the professional in training an opportunity to work in a medically coordinated rural community setting.

4. PUBLIC EDUCATION AND INFORMATION

It is the desire of the Council to provide continued direction and support in health education in Addison County. Further, to effect a program that will in-

volve the patient in this overall patient education effort. The effort includes stocking and auditing existing patient education materials as well as creating new materials when needed, i.e. audio-visuals, pamphlets, etc. These are correlated with other health care agencies' materials. This will standardize approach to a variety of health problems and aid the patient in his own self-education. The Council attempts to be the mechanism whereby assistance may be given to expand the professionals role to meet the ever changing health needs of the patient.

The Council produces an emergency information bulletin and a directory of health services in Addison County. Forums have been held dealing with immunization, anticipated developments in the health field for 1975, the rate increases for insurance companies in 1975, etc. These forums allow for an open exchange between legislators, health professionals, business and State representatives and concerned consumer.

The Council assisted in the formation of several educational efforts in the class format. The Expectant Parents classes and the Student Taking Off Pounds are only two of these programs. It is hoped the cooperative efforts will bring forth a Child Development class as well as a most needed Diabetic workshop in the next year.

Operating expenses 1975

Porter Nursing Home	$485,372.00
Porter Medical Center	1,100,201.00
Addison County Home Health Care Agency	98,411.00
Counseling Service of Addison County	272,807.11
Addison County Health Council	32,027.98
Total	1,988,819.09
Physicians (Figures available for 9 of 12 physicians in county)	700,000.00

STATEMENT OF OLIVER R. FIFIELD, PRESIDENT, NEW HAMPSHIRE–VERMONT BLUE CROSS/BLUE SHIELD, CONCORD, N.H.

My name is Oliver R. Fifield. I am President of New Hampshire–Vermont Hospitalization Service (Blue Cross) and New Hampshire–Vermont Physician Service (Blue Shield).

I want to thank the Subcommittee for inviting Blue Cross and Blue Shield to participate in your hearings on rural health care.

Blue Cross and Blue Shield have an integral role to play in the delivery of health care. We are nonprofit organizations providing coverage for the cost of health care for as many of the residents of New Hampshire and Vermont as possible and as economically as possible. In fact, the local Blue Cross and Blue Shield system covers under its own basic programs some 212,000 Vermonters and provides administrative assistance to many more who are enrolled in government programs. We do not provide direct health care services to our subscribers. Neither do we dictate to or control our subscribers' rights as individuals in their choice of selection of providers or institutions where health care is provided. Rather, we underwrite health care in Vermont and New Hampshire, and we do it better than anyone else.

Our benefit programs are varied and wide-ranging. We provide coverage for bad risks as well as good risks. Conversion privileges are available to all persons leaving groups, regardless of age or history of illness. We do not cancel membership for health reasons. Children are covered continuously from birth under family membership. And, we do not reject applications for membership due to health, age, or sex.

In support of the purpose of our existence, we hold fast to five objectives:

1. Assure continuous qualitative and quantitative growth.
2. Increase operating efficiency.
3. Strengthen provider capabilities.
4. Preserve the public trust.
5. Optimize the government programs we administer.

To attain our objectives, we recognize our need to be concerned with communications, new products, and alternative methods of providing care.

I would particularly like to emphasize our interest in the development of new programs. We have actively supported and assisted in the develoment of an HMO

in southern New Hampshire. We have been cognizant of the importance of the use of paramedical personnel and have supported experimentation in this area. Early in 1970, we assisted financially in an effort to bring two Duke University physician assistant graduates into the rural practice of a physician in southern Vermont.

We have discussed, and will continue to explore the feasibility of HMO-type programs in Vermont. Perhaps more consideration needs to be given to the possibility of the use of paramedical personnel in the more rural parts of the state. They might, for example, be an answer if proper emergency transportation were available to allow fast, effective use of more sophisticated facilities. Ambulatory facilities might attract physicians from the population centers on a rotation basis, if support personnel were on the premises.

THE CORPORATE ORGANIZATION

New Hampshire-Vermont Blue Cross and Blue Shield are part of a national network of 73 Blue Cross Plans and 71 Blue Shield Plans which, in 1974, insured one in every three Americans and paid $11.6 billion in claims expense on their private programs in 1974, and another $15.2 billion as intermediaries for state and federal programs.

New Hampshire-Vermont Blue Cross and Blue Shield currently insure nearly 50 percent of the under-65 population of the two states. We serve as fiscal intermediary and carrier for the federal Medicare program and administer other government programs including the Vermont Medicaid program, CHAMPUS, and Federal Employee Program.

Although Blue Cross and Blue Shield are separate corporations, they share a single philosophy—quality health care at a reasonable cost. The corporations are involved with different types of providers and have evolved different procedures to better serve their particular needs.

The Blue Cross Plan is a hospital service corporation which helps members pay bills for services of hospitals, skilled nursing homes, and home health agencies.

The Blue Shield Plan is a physician service and pays for the services of doctors, osteopaths, podiatrists, and dental surgeons.

Each corporation is governed by its board of directors composed of a cross-section of subscribers from the two states.

While the corporations are currently two separate organizations, legislation that will allow a merger was passed by the legislatures in both New Hampshire and Vermont in 1975, and we are now actively working on merger preparations.

THE BLUE CROSS STORY

The Blue Cross concept originated in 1929, when a group of Texas school teachers joined together to pay a small sum each year to the hospital at Baylor University. In return, they were guaranteed hospital care without charge when they needed it. The idea of prepaying hospital expenses proved popular and similar plans began in other communities.

The New Hampshire-Vermont Blue Cross Plan was formed in 1942, after passage of enabling legislation by the New Hampshire General Court. Two years later, after organizational efforts led by the late Laurence C. Campbell of Barre, the Vermont General Assembly approved a bill which allowed the New Hampshire Plan to expand its nonprofit service into the Green Mountain State.

THE BLUE SHIELD STORY

In 1939 a prepayment system for physicians' services was established in California. It was only five years later before the New Hampshire Physician Service, Blue Shield, began doing business as a companion to Blue Cross, after similar enabling legislation was passed. Two years later, the Blue Shield system spread to Vermont, again, after approval by the legislature.

THE OPERATION AND PHILOSOPHY

The overall goal of our system is to help as many people as possible get the best health care available at a reasonable cost and to guarantee payment of services on behalf of our subscribers.

In 1975, we processed 2,316,000 claims with a dollar volume of $84,700,000 in Vermont alone for all programs. Since our inception, we have returned more than

93 cents on every subscriber dollar received. We submit that this is an outstanding record.

Three district offices in Montpelier, Burlington, and Rutland provide direct customer service for our Vermont subscribers. These offices are also equipped with electronic video machines that provide a direct link with the Blue Cross and Blue Shield computer.

HOW BLUE CROSS AND BLUE SHIELD RELATE TO THE HEALTH CARE SYSTEM

It is our feeling that local communities pretty much determine the type and level of their own health care delivery system. Our responsibility is to help people in each community pay for the level of care they desire and are willing to support. The people of each community select government officials, administrators, and professionals to help meet health care needs as they themselves determine them.

Local hospital boards of trustees determine when, where, and if there should be hospital construction or expansion and how much it should cost. The community determines the number of health care professionals and types of other health care facilities it will support by the type of health care its people seek. We have been on record for years in encouragement and support of comprehensive health planning. In fact, we do not intend to participate in reimbursement of costs to hospitals for any construction not approved by the State Planning body.

These decisions all impact on the overall cost of health care and the cost of health care protection. Other factors, such as inflation, technology, and a recent influx in the number of physicians coming into the area—about 50 in Vermont since 1973—providing services that are in higher demand, are also responsible for the tremendous increases in claims volumes we have sustained during the past few years.

Our records show that in 1963 there were 157 general practitioners, compared to 121 in 1975. In 1963 there were no physicians listed under the category of Emergency Medicine, but today there are 12. Overall, our records show there were 463 physicians in Vermont in 1963 and 630 as of July 1, 1975. The most recent factor to have an impact on the cost of care is the malpractice crisis. A 163 percent increase in physicians' malpractice premiums recently approved in Vermont will drive up fees and, in turn, the cost of health insurance. Several hospitals have also been hard hit by the malpractice problem and, again, the cost of hospitalization will increase as will the cost of insurance to pay for it. At the Medical Center Hospital (Burlington) alone, the malpractice rate went from $92,000 in 1975 to $420,000 in 1976.

Beyond the mere payment of health care claims, the Blue Cross and Blue Shield Plans are actively engaged in efforts to improve the health care delivery system in the interest of both quality care and health cost containment for the benefit of all Vermonters. For example, all short-term not-for-profit community hospitals in Vermont are under contract with Blue Cross for payment of health care services needed by our subscribers. In effect, the contract guarantees the Plan will make payment for services to our subscribers. The hospital allows us to audit its books and pay on the basis of costs or charges, whichever are lower. Under a new three-year contract signed in November, four of Vermont's 17 hospitals decided to switch to a new system of payment for services known as prospective reimbursement. We are hoping this will help in our continuing efforts to help control costs. This unique contractual arrangement Blue Cross has with these hospitals has made it possible for the Plan to save its subscribers $1.7 million in hospital costs since 1965. In 1975 alone, the savings were about $260,000.

Other cost control programs used by the Plans include pre-admission testing, home health care, and extended care facility benefits. The home health care and extended care facility benefit programs provide both the patient and physician with an alternative to the increasing cost of hospital services, as well as a means for better utilization of the communities' existing medical facilities at substantially lower cost. Another important cost containing measure is utilization review which makes sure our subscribers get the care they need, but no more, and that the charges are fair and reasonable.

Our hospital utilization review program, started in 1968, also helped reduce the cost of hospitalization for Blue Cross subscribers by shortening the length of stay per admission. In 1974, for example, the average length of stay for Blue Cross subscribers in Vermont was 5.4 days, compared to 7.6 days for all other persons.

As the largest health insurer of Vermonters, we are constantly aware of even the slightest change in the state's health care system.

A good example of what has happened in the way of hospital care and the cost of hospitalization protection can be illustrated with a few figures. In 1965, the combined annual operating expenses for hospitals contracting with Blue Cross in Vermont was $20.8 million. Last year it had increased to $65.8 million. Today, the semiprivate daily room rate at Vermont hospitals averages $79.52. Ten years ago it ranged from $16 to $30. Our best coverage back then paid up to $25 a day. Today most of our contracts pay the full semiprivate rate based on our contract with each hospital. They cost considerably more, too.

MEDICARE AND MEDICAID

As fiscal agent for both Medicaid and Medicare in Vermont, we have also seen dramatic increases in the use of health care services by people eligible for these programs and the outflow of public dollars to pay for services provided. Just a few examples: Vermont Medicaid payments totaled $16.4 million in fiscal 1975, an increase of $3.2 million over payments the previous year. A copy of the 1975 Medicaid report to the State of Vermont is attached for your information.

Vermont Medicare payments have increased four-fold since June 1967, despite the fact that the number of recipients has increased only slightly more than 25 percent. In fiscal 1967, 47,000 eligible recipients received $6.9 million in benefits, compared to 59,000 eligible recipients who received $28.5 million in benefits last year. The increases can be attributed at least in part to a better understanding of the program, increasing costs of care, and inflation.

In closing, I would have to say we find little evidence that the demand for health care services will decrease—at least not in the near future. There is even less reason to believe the cost of care will drop, because of factors beyond our control such as inflation, malpractice, and public pressure for the most advanced care available.

STATEMENT OF FAITH G. EMERSON, R.N., ASSOCIATE PROFESSOR, COMMUNITY HEALTH NURSING, UNIVERSITY OF VERMONT, DIVISION OF HEALTH SCIENCES, SCHOOL OF NURSING, BURLINGTON, VT.

Thank you for your newsletter about the February visit of the Rural Development Subcommittee of the Agriculture Committee to hold field hearings in Vermont on rural health care delivery. I suggest the Subcommittee note in particular the contribution of nurses as evidenced at the Grand Isle Health Center, the affiliations of community health nurses with practicing physicians in rural settings, and the Mobile Health Van all of which are programs of the Visiting Nurse Association of Burlington, Vermont, a leader in the state in combining voluntary and official funds to provide a program of total nursing care and associated services for families in their own homes. These services are planned and implemented with physicians to provide health care to individuals and their families to prevent illness, identify early symptoms, and implement care and rehabilitation regimens when illness strikes.

There are many instances where institutional care can be prevented or shortened considerably when home health services are available. I CHALLENGE the members of the Subcommittee to compare the cost of providing care for a patient in an institution with the cost of providing health care services to maintain this patient in his own home even in a rural community. In terms of the economic cost to providers of health care, the savings are impressive. In terms of the emotional cost to individuals and their families, the recipients of health care, the savings are indisputable.

Thank you for this opportunity to comment on a vital problem for which the Home Health Agencies of Vermont are providing a workable solution.

STATEMENT OF HOWARD N. NEWMAN, PRESIDENT, DARTMOUTH–HITCHCOCK MEDICAL CENTER, HANOVER, N.H.

INTRODUCTION

The earlier portion of this narrative describes the very large service area of the Dartmouth-Hitchcock Medical Center, its characteristics, and the difficulties

inherent in providing comprehensive health care within its boundaries. The evolution of the Medical Center in recent years has placed the component institutions (Mary Hitchcock Memorial Hospital, The Hitchcock Clinic, Dartmouth Medical School, and the Veterans Administration Hospital) in a position where their collective exposure to and ability to impact upon the medical needs and wants of the area's population far exceeds that of the individual entities. As a result, the response of the Center to the needs of its catchment population has expanded and taken many forms in recent years.

A listing and a description of some of the major programs which have been developed recently have been presented. Many of these programs have achieved significant success. Without that success, the Medical Center would have neither the expertise nor the local acceptance necessary to allow it to be the catalyst and coordinating agent for the development of a health care system which makes sense for rural Northern New England. There are, however, gaps in the delivery of health care within the catchment area. They include the inability of existing programs to provide services to the entire target population or a target population too narrowly defined to reach all those in need. In addition, many programs have not extended into geographic areas of need, particularly to the north of Hanover, where provider capacity and consumer purchasing power are both sparse.

Finally, there is an overall paucity of coordination among existing health care efforts and an inability to guarantee to the consumer that he/she will be directed through the system efficiently and obtain the required level of medical care without undue risk or hardships.

CURRENT PROGRAM NEEDS

The overall health needs of the region and the gaps and weaknesses of ongoing efforts cited above point to two basic needs: A programmatic response, including the strengthening and extension of existing approaches, and a many faceted effort to build a regional health care system.

The optimal response to those needs lies in the development of the appropriate role for the rural Medical Center. Only the Medical Center provides the full range of services required by the region. It must fully utilize that capacity but also be cognizant of its limitations. Its service programs and educational undertakings (undergraduate and graduate medical training, continuing education, and allied health services training) should reflect its environment and its obligation to remedy the manpower, technological, and management shortages which exist around it.

The Dartmouth-Hitchcock Medical Center intends to develop as a model rural medical center and demonstrate its viability in improving, both directly and indirectly, the health care of Northern New England. It would utilize the Medical Services Administration Rural Health Research and Demonstration Project to aid that development, with particular concentration on the creation of the provider capacity necessary to facilitate access to the health care system by the rural poor.

The following are the key elements in the Center's approach to this demonstration:

The delivery of primary care within the immediate vicinity of Hanover, New Hampshire. This area includes severe rural poverty and is a good test site for techniques and approaches which can be expanded into the more remote areas after development of both the program and the necessary relationships with the local population and providers.

The provision of back-up services which are a vital complement to both local and far-reaching primary care programs. These programs not only provide necessary sophisticated and expensive services which cannot be universally available, but they also provide the impetus and technical assistance to aid in maximizing the effectiveness of the local primary care component. Two good examples of this dual effect are:

(1) The perinatal program which provides extremely sophisticated intensive care nursery treatment in Hanover, as well as a land/air transportation network into the Medical Center. In addition, the program provides assistance in upgrading obstetric and infant programs in the region in training health professionals, and in defining and solidifying a referral network which ensures high-risk infants reaching a center where the correct level of care is available.

(2) A development disabilities program which provides needed Medical Center workups and some treatment of needy children detected by EPSDT,

school health, and other screening programs. This program should also become a catalyst for local development of necessary service capacity while refining and certifying the route to the Medical Center for those in need.

THE DEVELOPMENT OF THE NECESSARY NUMBER AND MIX OF HEALTH CARE PROVIDERS

The Center includes the only M.D. and post-graduate residency programs in the State of New Hampshire. It provides nursing education and has been successful in training physician extenders (MEDEX). There are still physician and physician extender shortages in the region, and there is a pressing need to expand imaginative continuing education programs, which have begun to develop in Psychiatry and other departmental areas, to allow health care providers to locate in remote areas without losing professional contact and stimulation. Good programs would increase the likelihood of rural location of physicians and a high level of competent treatment for patients. Other useful skills which could be promoted by the Medical Center include the provision of home health services and the development of health education programs for health workers and consumers.

CREATION OF A RURAL HEALTH CARE SYSTEM

This approach seeks to link together the range of health care programs in the region, encourage and facilitate the development of new responses to local health needs, and fully utilize the medical, educational, and management capacity which exists in the region's Medical Center.

This is the most challenging aspect of the rural health demonstration. It obviously involves the provision of primary care and the testing of innovative ways to do so in rural scarcity areas. It includes the development and maintenance of Medical Center backup services for which there is a demonstrated need. Important aspects of the system relate to the training and education of physicians and other health professionals and para-professionals, the dissemination of important health care information to providers and consumers, and the availability of consultants on both medical care and other health related matters.

The Medical Center's role in this system involves it with all of the aspects mentioned above. Especially important is its role as catalyst and facilitator in the region's development, which goes beyond service provision, delivery method demonstrations, and manpower training. It is our belief that the development of operational responsibility within the Medical Center for all of the extensive and diffuse programs which could improve access to health care for the rural poor in its catchment area is inefficient, expensive, and unworkable. This approach, in our opinion, would be viable only with extensive demonstration support and would produce little of an ongoing nature once that support terminates.

Instead, we propose to develop limited demonstration models (and encourage the local implementation of successful ones) ; to make strong efforts to increase and aid the efficient location of health manpower in the region ; and to formulate, in concert with area communities, referral and consultation patterns which serve the best interests of local residents.

PROPOSED ELEMENTS IN THE RURAL HEALTH DEMONSTRATION

Primary care

There are numerous local service programs mentioned previously which have been undertaken by the Medical Center. They include numerous well-child clinics, the Mascoma Outreach Project, etc. The Center proposal in this area is to demonstrate the use of house staff in the local well-child clinics and to operate a local comprehensive pre-school program under the Department of Psychiatry for the identification and treatment of developmental and behavioral problems in children ages three to five years.

The use and support of a rotating resident in local well-child clinics could provide needed physician manpower at relatively low cost as well as exposing the Medical Center house staff to the provision of primary pediatrics in a rural setting. This program might have wide applicability in the areas far to the north of Hanover.

The Department of Psychiatry's comprehensive pre-school program compliments an ongoing infant program which is funded through FY 1976. Together they provide the opportunity to evaluate a combined institution/local-based operation which is more likely to be feasible in sparsely populated rural areas.

Other primary care programs which serve general primary medical and psychiatric needs locally will continue to operate and will provide important input into the planning process over the first six months to one year of the demonstration. Decisions concerning the alteration or expansion of those programs and their applicability to other geographic areas should result from the systematic approach to rural health care being undertaken.

Back-up services

There are numerous medical care services which can only be delivered in a medical center context. It is our intention to transform several vital services which have been performed within the Dartmouth-Hitchcock Medical Center by providing administrative and institutional coordination and visibility in an attempt to gain two additional advantages. The Center seeks to improve the chances that the poor and those in remote locations can gain access to the referral service when needed and also to be an impetus for the development of local capacity for dealing with the health care problem in question.

Specifically we propose the following:

The Medical Center provides information and assistance in cases of poisoning in the region receiving up to 200 calls per month and frequently treating cases in the Mary Hitchock Memorial Hospital emeregncy room. Accidents in general and accidental poisonings in particular are very prevelant in rural areas. Often the children and families involved are repeat victims. It is our intention to attempt to develop a true poison control center which will include 24-hour coverage by a resident, back-up by a staff physician, and the hiring of a full-time manager for the program. Funding is also requested to allow the program manager to purchase home health agency services where necessary to start the process of follow-up with high-risk families. The goal of the program and its manager is to develop indigenous follow-up activity and education programs in local areas.

Child abuse is another area where the Center must fulfill a dual role of local service and regional catalyst and coordination. Child abuse is prevalant in the upper Connecticut Valley and the Department of Maternal and Child Health deals frequently with abuse cases. There is a pressing need to develop and gain regional acceptance for a coordinated program of dealing with child abuse. Local cases currently involve pediatricians, psychiatrists, social workers, and others. We propose funding of an office of child abuse with a social worker or nurse coordinator who will utilize physician consultants in seeking to aid the development of local programs. The coordinator will develop the necessary referral assistance and promote the dissemination regionally of information on other programs in child abuse.

The third area in this category for which we are seeking demonstration support is a developmental disabilities program. There is no other program in the State of New Hampshire to provide work-up and follow-up on children with developmental disabilities detected by EPSDT or other screening programs. The dual role sought for a developmental disability program has been described earlier. It is our intention to utilize the funding to put together a Center-based program for work-up and treatment which includes physicians and therapists. By providing for a full-time physician-director, we hope to insure cooperative efforts with local communities in encouraging and assisting their attempts to provide more complete screening and necessary follow-up for the developmentally disabled.

Provider capacity

Dartmouth Medical School has recently returned to a full M.D. program. It has been a pioneer in formulating the rural medical school model by developing primary care centers outside of Hanover for the clinical instruction of medical students. The Primary Care Residency is specifically geared to training the physician-manager who is so vitally needed in rural areas. The Medical School has also been successful in producing MEDEX physician assistants for Northern New England over the past five years. The Interact, a two-way television system, has been a helpful tool in providing both educational programs and physician consultation for areas more remote from Hanover. It is a device whose future potential appears excellent in assisting the development of optimal provider capacity.

In the first year of our demonstration project, we have focused on three areas where study, planning, and limited implementation should take place to compliment the Center's current role in health manpower development.

Continuing education is vital to the rural provider and to the local residents because it makes locating in a potentially isolated region more attractive and upgrades the quality of care delivered. Dartmouth Medical School has the lead role in continuing education within the Medical Center. We are seeking support for a full-time director of the program who would work not just with medical societies but with local communities in devising innovative educational programs which respond to local needs. Programs for non-physicians, perhaps even some health education for the public, and possibilities for imaginative use of the Interact system need to be explored. It is our opinion that a capable person fully committed to continuing health education would provide a high payoff in coordination of ongoing programs, and in the research, planning, and demonstration of ways to bring ongoing health care education to sparsely populated areas.

The Interact program has been described previously. It currently extends over 180 miles throughout the region, providing consultation, patient care, and educational programs. We still are in the process of experimenting with ways to fully utilize the system and to manage it effectively. Support for these efforts would aid that process and increase the chances that Interact would fulfill its potential to improve access to health care among the poor and others in isolated areas.

Specifically, we request funds for a program manager (operations and financial) to improve the workings of the current program, which would include the development of new methods for maximizing the utilization of its potential in areas where it is operational.

In addition, we seek support for a market feasibility study for extending the network into new locations in the most severe manpower scarcity areas to the north of Hanover. If this study produces favorable results, we would seek capital funding to proceed with the extension (perhaps jointly) from this project and the National Library of Medicine. The Department of Psychiatry has sponsored an engineering feasibility study for such an extension and one has been completed showing all the proposed sites. They were joined and aided in this effort by the financial and other contributions of the New Hampshire Charitable Trusts and the three mental health clinics which are located in the North Country, an indication of the grass roots support for this extension.

There is no doubt that extension of the system into the North Country would meet a critical educational need and provide the continuing education coordinator with many exciting possibilities. The Director of the Norris Cotton Cancer Center is strongly supportive of the Interact extension in bringing tumor clinics to this area, and Department of Psychiatry, as noted earlier, has pioneered this expanded Interact network to fill an important educational and service gap.

Finally, we would seek a small amount for continued demonstrations of the capabilities of the current network. During the past several years, the Medical Center has been a leader in the training of MEDEX phsician assistants. The Center also provides for the training of nurses and other health workers. There is a general consensus within the Center that physician extenders have been shown to be a valuable resource in this region and that they can have a significant positive impact on access to and quality of health care.

Serious study and discussions (both inside and outside the Medical Center) are necessary to shape a comprehensive physician extender program. Issues which need to be addressed include the relationship to nursing education, the type(s) of PE most required by the region, the link to continuing education, and the desirability of providing rudimentary medical training for indigenous persons in scarcity areas as part of this program.

We propose support for a person with experience in MEDEX who would spend the next year in concert with key people from inside and outside the Center in developing a viable PE program(s) which meets the needs and expectations of the region.

Rural health care system

All of the previous proposal elements, from the relatively small demonstration projects, to the INTERACT feasibility study, to support for coordinators of regional continuing education and physician extender programs, are part of an attempt to develop a rural health care system for this region. The goal of those specific programs, and others described previously, is the improvement of health care delivery in the DHMC catchment area.

It is our belief that the overall effectiveness of these on-going programs and services (as well as additional ones which might be added) could be aided

greatly by developing a context or system within which they could fit and interact with each other. A network of health services with shared information and capacity, available back-up, and clear referral patterns would be a great step forward.

Our plan seeks to expand the interaction of programs which serve the region and increase the sharing of information about them within the Center. It also attempts to make outside communities active participants in this process. During the first stage of this development, we have clearly made the formation of a nucleus of key people a major part of our strategy. We believe that individuals with the commitment plus the available time can make major strides in developing good programs and in maximizing constructive input in that process by both the community and the remainder of the Center. The most efficient utilization of manpower, facilities and information is an absolute requirement given the severely limited resources of a rural area. A team of people with different program interests but the same overall direction can be brought together with each other and with representatives of the region under the auspices of this grant. Their contribution to the health status of the region is potentially very large.

The emphasis in this section of our proposal is on planning to maximize that overall effect on health care in the long run. In addition to the efforts in the three categories already described (primary care, back-up services, provider capacity), we intend to plan a long-term institutional and areawide approach to the problems of access, capacity, and efficiency in a rural area.

This effort will be guided from within the Medical Center and will have a planning emphasis at the state of the demonstration. We intend to develop effective methods of coordinating the activities of key people and programs for the region from both inside and outside the Center. A major objective is the formulation of an ongoing system of managing and supporting regional programs in service, education, and research. Once formulated, this system would be demonstrated and evaluated on the basis of its success in expanding the impact of this demonstration plus that of other ongoing programs (cancer control, hypertension, etc.).

It is not our intention to build a large administrative unit to plan and develop an operational structure and programmatic strategy for regional health matters. We will seek support only for one additional administrative position to serve the planning group in a logistical fashion. The Staff Assistant to the President of the Medical Center is charged with lead planning responsibility in the Center and will manage this objective. Persons designated as directors of the child abuse, poison control, Interact, continuing education, physician extender, and developmental disabilities programs will participate in activities grouped under the "system" objective which will include coordination of those projects as well as the planning effort described above.

As part of this effort to plan and then demonstrate a systematic approach to rural health, we seek support for a small portion of time for representatives designated by the Chairmen of Community Medicine, Maternal and Child Health, Medicine, and Psychiatry, and the Director of the Norris Cotton Cancer Center. This will enable full internal participation in the development of a Centerwide operational locus for regional matters. It will facilitate coordination of ongoing programs and decisions on new program initiatives under rural health R. & D. auspices. Several areas have already been slated for discussion in this context including a comprehensive health program for adolescents (with particular emphasis on teenage pregnancy), a signficant increase in regional alcohol program efforts, and the expansion of mental health services at the primary care level.

A crucial input into both the organizational and program planning issues in the rural health R. & D. effort must come from the community outside of Hanover. We are requesting a relatively small amount of funds which can be utilized to support the input of communities in the planning program (travel funds, telephone, et cetera) as well as possibly to provide seed money for pilot efforts toward establishing local program elements in the regional network.

Dartmouth Medical School has recognized the importance of strong community relations to a successful, community-based M.D. program in its commissioning of an Associate Dean for Regional Affairs. We expect the incumbent to play a major role in this demonstration (particularly in the area of Interact and continuing education), and in the formulation of a Centerwide administrative locus for service, education, and research geared toward the rural communities which make up the referral area.

Finally, we intend to involve designated representatives of the Mary Hitchcock Memorial Hospital and the Hitchcock Clinic in the demonstration project. Support for that involvement is requested. It is our belief that the scarce resources and sparse population of the area dictate very careful planning of manpower and facilities development in order to both insure access and control costs in the region. We would like to explore the possibilities of a future demonstration of joint facilities and manpower planning in a large rural area. In addition, involvement of the Hospital and practice group insures important representation in both the rural health program effort and the planning for an administrative locus to coordinate the ongoing relationship between the Medical Center and its catchment area.

STATEMENT OF DR. WILLIAM H. LUGINBUHL, M.D., DEAN, THE UNIVERSITY OF VERMONT, DIVISION OF HEALTH SCIENCES, OFFICE OF THE DEAN, BURLINGTON, VT.

Recently you wrote me of your intention to hold hearings in Vermont on the subject of rural health care delivery. It is my understanding that during these hearings you will primarily concentrate on model systems which have been developed in Vermont as opposed to collecting further information on the general problem and its causes.

The College of Medicine faculty are participating in several such model programs. The Department of Family Practice, Chaired by Dr. Edward Friedman, has developed a facility in the town of Milton, and is actively planning additional facilities elsewhere in the state. The Department of Medicine in addition to cooperating with the Department of Family Practice, has developed programs for the promulgation of problem-oriented medical care under the leadership of Dr. Henry Tufo. Dr. Jerry Lucey of the Department of Pediatrics has developed an outstanding state-wide program related to high-risk pregnancy and neonatal mortality. I believe that you have already contacted these three men and that they plan to personally describe their efforts before your Committee. Frankly, I think this is a better approach than having me relay the information second hand.

I do hope that in reviewing these programs and others, some of the problems that they face will be brought out. Some of these problems appear to me to have been caused, or at least compounded, by current Federal policy, and thus are potentially amenable to action by you and your colleagues. I refer in particular to the problems of specialty distribution of physicians and geographic distribution of physicians. The problem of specialty distribution of physicians is related to the fact we are training large numbers of specialists and subspecialists, and inadequate numbers of family physicians who can best meet the needs of rural areas and inner cities. Unfortunately, our present system of paying for residents encourages hospitals in perpetuating this imbalance and actively discourages the training of family physicians. Similarly, since specialty care is relatively more lucrative, young physicians are discouraged from entering the primary care areas, and in particular from settling in rural areas. Because the Federal Government directly pays for a large portion of patient care, and indirectly for a large amount of the residency training in this Country, both of these problems would be amenable to your action.

All of us are very pleased that you are holding hearings in Vermont. I do hope that you will be favorably impressed by what you learn of the programs developed by our faculty. If I may assist you in any way, I will be happy to do so. Unfortunately, the problems of rural health care delivery are complex and are not amenable to simplistic solutions. However, I do believe they can be solved and that appropriate action by the Federal Government will be one requirement.

STATEMENT OF BERNARD W. SCHOLZ, TOWNSHEND, VT.

This is in response to your Newsletter on Vermont Rural Health Hearing. I am delighted to respond, since I have been personally closely associated with the development of rural health services in South-Eastern Vermont, and believe that some valid and valuable deductions can indeed be made from our experience.

When I retired to Vermont after a lifetime spent in public welfare administration, the health-care picture reminded me very much of the welfare picture in pre-1935 days: At that time, rich, industrial counties had Old-Age Pensions, Mother's Pensions, and Blind Pensions, while poor rural counties had nothing

but poor-houses or poor-farms. The same was true of the health-care situation in South-Eastern Vermont: Brattleboro and Springfield had visiting nursing services, a Family & Child Guidance Agency each, and they, as well as a few other communities, had small, inadequately equipped hosptials, ambulance services consisting mostly of hearses or station-wagons operated by untrained staff, and privately-funded schools for retarded children. Generally available and accessible health-care services did not exist. The time was 1967.

Quite by accident I was inivted to a meeting of concerned Windham and Windsor County citizens who were working on a follow-up to the study (1966) of the Governor's Committee on Mental Retardation; they loosely organized themselves as the Southeastern Vermont Mental Retardation Council. From my experience in the administration of the D.C. Children's Center in Laurel, Md., I was able to convince them that mental retardation was frequently only one facet of a seriously damaged personality, and that a much broader approach to prevention and care was needed than a singling-out of the single diagnostic factor of feeblemindedness. As a result, the group broadened its goals and its membership base, and, in December 1968, incorporated as *H*ealth-*C*are and *R*ehabilitation *S*ervices of Southeastern Vermont. I was one of the founders and its first president.

The new agency, now generally referred to as "HCRS", was not meant to operate new programs, but rather to function as a catalyst: To stimulate the organization of services where none existed, and help in securing financing; to close gaps in existing services, to strengthen inadequate services, and to function as a planning body by preventing overlap and duplication through close cooperative arrangements with public and private agencies, institutions, and governing bodies.

The first project of the new agency was the compilation and publication (December 1969) of a comprehensive Directory of Human Resources for Windham and Windsor Counties, which has since then appeared in a second edition.

The second project was a feasibility and planning study (funded by an HEW grant) of a group-living facility and sheltered workshop for handicapped persons in the Springfield, Vt., area. The study and plan were completed and published in December 1969, and an application for an operating grant was prepared, but the project had to be abandoned when the Vermont Occupational Training Center in Proctorsville was disbanded, which had assumed sponsorship of the project.

The third project was the establishment of a research and treatment facility for children with developmental disabilities in the age group from infancy to five years. With a grant under P.L. 90–538, the Handicapped Children's Early Education Assistance Act, a program was started in July 1969, which gradually expanded with children bussed to the facility from its official catchment area as well as from neighboring New Hampshire and Massachusetts communities, until the agency could make itself independent and incorporate, in July 1972, as the Winston L. Prouty Center for Child Development. As one of the co-founders, I am currently serving on its Board of Trustees. Its program has been so successful that, regardless of the nature and severity of their handicap, 95% of its alumni are now able to attend regular public school.

In the meantime, the Board of HCRS had become concerned about the fact that the citizens of the West River Valley (the towns of Dummerston, Nefane, Brookline, Townshend, Jamaica, Wardsboro and Stratton) were without any health-care services except those provided by three superannuated private physicians, while younger doctors who tried to practice in the Valley, left after a short time as they found themselves too overburdened for lack of any supportive services. A group of citizens therefore founded the Valley Health Council in February 1972, of which I served as the first president. It provided Visiting Nursing Service, Visiting Physiotherapist Service, Visiting Home Health Service under a sponsoring arrangement with the Brattleboro Public Health Nursing (Town-financed) Department, since sponsorship by a certified Nursing Agency is a requirement for third-party (Medicaid, Medicare) payments; a year later, sponsorship was shifted to the Ellsworth Nursing Service in Chester, Vt. The Valley Health Council also established the first Homemaker Service in Vermont, which is being financed for older citizens by the Office on Aging, for families with young children by South-East Vermont Community Action (SEVCA) of OEO. The new agency became independent and incorporated in March 1973, but continued to operate under its complex funding arrangement under which its income is derived from ten different sources, including annual appropriations from the member towns and the operation of a thrift shop.

Finally, the HCRS Board was prompted by the continuing deterioration of mental health services, and the growing problems of alcoholism, drug abuse, and suicide among juveniles, to enter into negotiations with the two county mental health agencies, aimed at forming a Mental Health Consortium which, under a Federal grant, would provide comprehensive regional mental health services to the whole area of the two contiguous counties. In months of painstaking negotiations a compromise plan was worked out and an application for a Federal grant developed which was approved by the State Department of Mental Health, the Regional Office of HEW, and by NIMH. The needed funds were appropriated—then President Nixon impounded them. Not until February 1975 were the funds released after Supreme Court action, but by that time the situation had changed to such an extent that a new revised plan had to be developed and submitted, which was finally approved. On July 1, 1975, the two old County Mental Health agencies went out of existence, and a new regional organization, Mental Health Services of Southeastern Vermont, began to operate out of headquarters in Bellows Falls, with a Residential Treatment Facility, three Day Treatment Centers and ten branch offices, and a 24-hour Emergency Service over a region-wide toll-free telephone line. I am on the Executive Committee of the Board overseeing the operation of the new agency.

This is what has, so far, been accomplished in eight years of strenuous effort. It certainly is not a model for anybody. It is a crazy-quilt of organizations, with a crazy-quilt of financial arrangements. While the system is slowly expanding and bringing basic health-care services to areas which formerly had none at all, we are only too keenly aware of its inadequacies and inequities.

As for inadequacies—we still have practically no preventive medical services; we have no emergency service—neither as far as properly equipped ambulances and trained staff, nor as far as hospital emergency rooms and staff concerned. Funding is an absolute nightmare, with grants and their oversight coming from a multitude of agencies, which ultimately all turn out to be constituents of HEW. But we realize that this is not the fault of HEW, but of Congress, which instead of taking the pains and having the courage of writing one coherent and comprehensive peace of health-care legislation, contends itself to adding patches to the existing crazy-quilt, each patch uncoordinated with earlier ones and requiring separate applications, separate guidelines, setting separate eligibility standards and requiring separate reporting and accounting. So much for inadequacies.

As far as inequities go, they operate on several levels: the personal and the governmental. On the personal level, there is the incredible disparity in the availability, accessibility and quality of health care available to the city dweller and the rural citizen who pays the same taxes and supposedy has the same rights as a citizen as his urban counterpart. In Washington, I can select to belong to Group Health Association and have a doctor on call night and day, go to their clinic at 2121 Pennsylvania Ave. NW, and find the most complete collection of specialists and the finest equipment I could hope for, or if I cannot afford private medical insurance, there is a plethora of clinical and hospital services accessible and available to me that Medicaid and Medicare will pay for. In Townshend, at the same cost in Federal taxes and private medical insurance, there is nothing except the services HCRS established; or I can leave the state and ride two hours to the Mary Hitchcock Clinic in Hanover, N.H., or four hours to go to Mary Fletcher at UVM in Burlington.

I see that Senator Clark is going to participate in the Vermont hearings; maybe he can supply a better model from his home state. When I worked in Iowa under the Iowa Emergency Relief Administration forty years ago, the University of Iowa in Iowa City had a pool of 34 ambulances, that fanned out all over the state on a set schedule, picking up patients for tests, treatment and surgery, and bringing convalescent patients back home. As I recall, each ambulance held two stretchers and three easy-chairs; an additional run was made by ambulances held in reserve for emergency cases. The small county hospitals were not much more than first-aid stations, lying-in hospitals, and convalescent or nursing homes. Every citizen had quick access to the centrally located University Hospital (remember that the Vermont University hospital is in the extreme north-east corner of the state), and the topography of the State made this facility readily available from all directions. Vermont's winding, narrow valleys, and the total lack of public transportation, make centralization of services impractical.

As for the governmental level of inequities, it simply consists of the fact that States with small populations, such as Vermont, the Dakotas or Wyoming, unless they are at the same time rich like Delaware, are unable to support the admin-

istrative machinery required to enable State government to be responsive to its Federal counterparts.

This has nothing to do with the much-maligned Federal bureaucracy. But as the administration of each new Congress-mandated program requires Federal administrative machinery, so does it also require administrative machinery in the States—especially if the new act provides for a grant-in-aid program that necessitates applications with documentation of need, local matching funds, and customarily the designation of a specific single State agency for the operation of the program. A small, poor State like Vermont has no special staff with expertise in grantsmanship, it has committed all its funds to ongoing programs and cannot afford additional matching funds, and it cannot afford the staffing on the State and local level to make the program operative. As a result, the State frequently either fails to avail itself of the authorized program altogether, does not request the funds to which it is entitled, or falls short in its administrative performance of statutory requirements and Federal guidelines. By the same token, there are inequities within the State: Programs are most likely to be initiated and funded in urban areas and near the capital city, while distant, isolated, truly needly rural areas are short-changed. Vermont is a classic example, where most well-funded programs are located around Burlington and Montpelier, just as the State hospitals (the Vermont Medical Center, the Vermont State Hospital in Waterbury, and the Brandon State Training School) are located near the capital, while southern and especially southeastern Vermont have remained under-developed areas.

The only thing Congress could do, and should have done forty years ago, is to follow the European example and to enact National Health Service legislation, regardless of the anguished cries by the AMA and the private insurance carriers. Only in this way can adequate healthcare delivery be achieved throughout the Nation, including its rural areas.

STATEMENT OF DR. JOHN C. LANTMAN, M.D., THOMAS CHITTENDEN HEALTH CENTER, WILLISTON, VT.

Mr. Chairman, I wish to describe briefly the Thomas Chittenden Health Center which is one of the models of a primary health care system operating in the state of Vermont.

The Thomas Chittenden Health Center is located in Williston, Vermont, which is located approximately in the center of Chittenden County. I would describe Williston as a small, rural community which contains a number of small dairy farms and few small industries, but is primarily a residential type community.

1. FACTORS LEADING TO ESTABLISHMENT OF THE THOMAS CHITTENDEN HEALTH CENTER

Historically, the area served by the Thomas Chittenden Health Center had received its medical care from several solo practitioners located in the area. Gradually, over the years, the number of these practitioners had diminished to one. Attempts by this practitioner to secure additional physicians in the area, however, their practices were rather short lived and for one reason or another, these physicians left the communities they served. The one remaining solo practitioner in the area became increasingly overworked and it was obvious to him that he must either refuse to see certain sick individuals, close his office and leave as had the other physicians or attempt to devise some new approach in providing primary care to the people of the several towns he was serving.

The decision was made to attempt to form a small group practice to serve this rapidly growing area. The physician was able to interest three young physicians who were in training at the Medical Center Hospital of Vermont in Burlington, Vermont, in joining with him to form a small group practice which would provide primary care to the eastern portion of Chittenden County. It should be pointed out that this physician's job in attracting new physicians to the area was made considerably easier by the close proximity of the Medical Center Hospital of Vermont and the availability of young physicians participating in the teaching programs of that institution. It should also be pointed out that the Chittenden County area of Vermont is a rather attractive area for physicians to settle in and this, too, made the job of interesting physicians to join this group somewhat easier. It should also be pointed out that the concept of group practice has considerably more appeal to young physicians than the traditional concept of solo practice.

2. ORGANIZATION AND FINANCING

Prior to a final decision regarding formation of this group practice an effort was made by the physicians to determine if the communities that would be served by this practice would be supportive of this type of approach to health care in their area. Town officials, legislators, business men and other health professionals were consulted concerning their thoughts as to the feasibility of such a group practice. There seemed to be consensus that such a group practice would probably serve the health needs of the area in an acceptable fashion and that the investment in terms of building and equipment would be a reasonable venture from a strict business standpoint. A decision was thus made to proceed with plans for the formation of a group practice and concurrently plans were made for the designing and construction of a building to house such a practice. Financing was arranged through two local banks in Burlington. Each physician contributed a small amount of the funding (each physician contributed an equal amount). No attempt was made to raise money from individual persons in the communities to be served. Likewise, no financing from federal or state agencies was sought. Design and construction of the building was handled by one of the national firms specializing in physician office buildings. It was found that this approach was considerably less expensive than dealing with local architects and local builders. On July 1, 1969, the Thomas Chittenden Health Center began seeing patients.

3. POPULATION SERVED AND SERVICES PROVIDED

This group practice provides care primarily to the population living in the central and eastern portion of Chittenden County. However, surprizingly, a large number of patients come from the Burlington area and even from surrounding counties such as Addison, Washington and Grand Isle. Presently, this practice has approximately twelve thousand (12,000) active patent files. Approximately five to six hundred patients are seen per week in this practice.

Services provided include those commonly referred to as primary care services. The four initial physicians, while trained as internists, function basically as family physicians. All age groups are cared for. The practice provides X-ray services (films are interpreted by a radiologist), routine laboratory services, and does maintain an emergency room where the simpler type of emergency problems are handled. The practice has a close working relationship with the Visiting Nurse Association located in Burlington, Vermont. Almost daily the VNA nurses are present in the office conferring with physicians concerning common patients. It should be emphasized that this relationship with the Visiting Nurse Association is an important one and because of it home care is greatly facilitated and it is felt that numbers of hospitalizations and length of hospitalizations are reduced because of their relationship. At one time, the VNA actually maintained a small sub-office in this practice facility, but because of financial considerations, this office arrangement was discontinued. Additional services which have been added at the Thomas Chittenden Health Center since its inception in 1969, are dental and psychiatric services. Presently, two dentists and two psychiatrists practice in the facility. It is the policy of the Health Center to continuously attempt to identify health needs of the community and when feasible to add these services to those already being provided by the Center.

The Thomas Chittenden Health Center does provide services seven days a week and on a twenty-four hour per day basis. Office hours are held five evenings each week to accommodate patients who cannot come during the day. During the night hours and on weekends a physician is constantly on call and patients, not infrequently, are seen at all hours of the night and on weekends. House calls are made when necessary. All physicians in the Center are Attending Physicians at the Medical Center Hospital of Vermont and care for patients at the institution. Physicians at the Health Center also care for many nursing home patients in the area.

To provide the above services, in addition to the six physicians, two dentists, and a part-time radiologist, the Health Center employs approximately twenty full-time and two part-time employees (nurses, secretaries, and technician).

4. SUMMARY

The Thomas Chittenden Health Center does represent a model of one method of providing primary care including psychiatric and dental services to a rural

and semirural population. This model is financed completely with private funds and is directed entirely by physician directors. It is a Center that attempts to be responsive to the health needs of the community it serves. This Center has been in existence for approximately seven years, the health of the model appears to be good at this time and the prospects for considerable longevity appear to be good.

I wish to thank you for the opportunity of presenting this testimony to your subcommittee. I would also like to complement your committee for its willingness to examine the health delivery system as it exists in Vermont today. I believe that much can be learned by examining the health delivery system as it currently exists. Contrary to what one so often hears, I believe there is much about the present system which has merit. So often in health planning we are misled by our idealistic dreams of the impossible rather than dealing with the art of the possible.

STATEMENT OF J. CHURCHILL HIDES, ASSOCIATE DIRECTOR, THE VERMONT LUNG CENTER, THE UNIVERSITY OF VERMONT, BURLINGTON, VT.

AN INNOVATIVE MODEL FOR REGIONAL CATEGORICAL HEALTH CARE DEVELOPMENT

The National Institutes of Health, the senior public arm for medical research, supports a Vermont-based model health system which is unique to the nation—the Vermont Lung Center. This system, newly inaugurated in December, 1974, is subject to rigorous, prospective evaluation—ongoing scrutiny which is indicated by the implications of this model for patterns of medical research, clinical demonstration, and health care development across the country. The Vermont Lung Center is the first national research and demonstration center for lung disease, a pilot program established under the National Heart, Blood Vessel, Lung, and Blood Program through its enabling legislation, Public Law 92–423.

The model system, underwritten by the National Heart and Lung Institute, is a consortium program of five major health-related organizations in Vermont. The focus of the model is categorical—that is, the health services and medical care complex is addressed through a frame of reference which relates directly, but not necessarily exclusively, to a particular class of health problems. In this instance, the class of problems includes those environmental, pathological, and other hazards which endanger public and personal respiratory health.

The Vermont Lung Center, comprised of the Vermont Lung Research and Demonstration Center and the Vermont Pulmonary Specialized Center of Research, is a cooperative venture to improve the understanding, management and prevention of lung disease.

It is "cooperative" in that the participants are drawn together in the spirit of voluntary collaboration towards the common goal. It is a "venture" in that the model, however promising, is as yet unproven and experimental. The goal of "improvement" signifies the intent to forward the state of the art on a number of fronts: in reducing the voids in our understanding of lung disease through a vigorous research program; in improving the translation of this research into models of disease management which have demonstrable efficacy; and in striving toward effective prevention of lung disease through measures which involve lay individuals and communities as well as the health and medical professions.

The participating organizations in the Vermont Lung Center include the University of Vermont College of Medicine, the Medical Center Hospital of Vermont, the Vermont State Department of Health, the Vermont Lung Association, and the Cooperative Health Information Center of Vermont. Each is characterized by a state-wide scope of activity. Involvement in the consortum brings particular strengths of each institution to bear on the identification and pursuit of the selected targets for investigation and development. The College of Medicine provides the essential controlled environment for carrying out biomedical and behavioral research protocols; the Medical Center Hospital with its specialty unit for respiratory diseases is an appropriate setting for the conduct of clinical studies and demonstrations; the State Department of Health as the local public health authority presents opportunities for involvement with environmental and occupational lung disease; the Vermont Lung Association brings its knowledge of and sensitivity for the Vermont community to bear on programs in public education and information—and in listening to the public; and the Cooperative Health Information Center maintains unique statistical sensors which serve to

establish baseline measurements and to monitor change in respiratory health status.

The programs of the Lung Center hold implications for several issues facing contemporary health services and medical care including questions of cost effectiveness, quality of care, and the supply and demand of health and medical services. The programs of the Center—research, medical care development, prevention and control, and education and information—are carried out in an atmosphere of strict prospective assessment. This emphasis on evaluation is focused on outcomes with broad societal implications ranging from dollar costs per benefits received to the efficacy of new procedures in reducing discomfort and early death. From its alignment with the State's focal point for health and medical education, the Lung Center is in a position to investigate methods for upgrading quality of care through training of new entrants to the health professions as well as for identifying and programming to meet the learning needs of the practicing respiratory care community. In addition, the situation of the Lung Center in rural northern Vermont has obvious benefits in attracting highly qualified and innovative students and professionals to settings which might otherwise be less able to compete with medical centers in or near metropolitan areas. Through a growing computer network-based data system, the Lung Center is able to bring selected specialty respiratory care services directly to the site of primary care thereby augmenting the ability to meet the unique challenges of first-line medical practice.

In conclusion, the Vermont Lung Center is a unique national model of regional categorical health care development which is intended to further the understanding, management and prevention of lung disease. The sum of the very broad scope of the Lung Center programs is significant potential for impact on issues of health and disease through advances in biomedical, behavioral and organizational elements of health services and medical care—impact with applications which go well beyond the immediate targets pertaining to public and personal respiratory health.

STATEMENT OF DR. ROBERTA R. COFFIN, M.D., DIRECTOR, MEDICAL SERVICES DIVISION, STATE OF VERMONT, DEPARTMENT OF HEALTH, BURLINGTON, VT.

The Division of Medical Services of the Vermont State Department of Health has been intimately involved in rural health in many ways, from the actual provision of certain specific elements of care to the broad involvement of policy and decision making. From this point of view it seems that instead of specific impoverished areas being designated because of lack of physician services we need to focus on what kind of health care all need and who can provide it. All children should receive standardized health supervision of high quality. That this is possible has been demonstrated through the new Early Periodic Screening, Diagnosis and Treatment (EPSDT) Program. Vermont has been cited as a state where an impressive program has been undertaken in order to fulfill the letter of the law by insuring that Medicaid-eligible children gain entrance and continuity in an ongoing health care system. Making sure that this system is providing quality health care of a certain standard is also a responsibility of this Division and the Vermont Chapter of the Academy of Pediatrics.

The problem that the Early Periodic Screening, Diagnosis, and Treatment Program presents is that this effort is directed entirely at the Medicaid population, a population that now has the wherewithal to pay for almost every aspect of their medical care. Virtually every physician in the state of Vermont accepts the Medicaid child. However, other children from families with incomes above the Medicaid level do not have the mobility, motivation or the finances to obtain this high quality care. A concertive, organized effort in order to see that health supervision of children of all ages and care of minor ailments is readily obtainable without financial barriers is a need and priority of rural health.

There is a similar problem for mothers both during and between pregnancy. Infant mortality and pregnant women arriving at the hospital for delivery without care are not as much a problem in the state of Vermont as elsewhere. Physicians are available and prenatal care is sought. Rather the type of care that is needed is standardized high quality medical care with early identification of the high-risk pregnancy and the "well care" of the pregnant mother which

can be done so very well by nurse practitioners and mid-wives. This important aspect of health care includes the answering of questions, the planning, the education which needs to go into having successful parents rather than just a live baby at the end of pregnancy. Medical care in the state of Vermont is crisis oriented, more attention should be given to the ferreting out of potential problems before they become crises. I think it is time to explore a non-crisis oriented care system so that people are better prepared for problems and crises occur less often. This can be accomplished through routine and appropriately applied screening tests and what public health nurses call anticipatory guidance.

It is possible to achieve the above concepts of rural health care providing public programs and financing are working with, supplementing and cooperating with private medical care services. Thank you for allowing me this opportunity to present testimony concerning rural health care.

STATEMENT OF JOSEPH S. HANDY, COMMISSIONER, STATE OF VERMONT, AGENCY OF HUMAN SERVICES, DEPARTMENT OF SOCIAL AND REHABILITATION SERVICES, MONTPELIER, VT.

We wish to submit, for your consideration, a model for delivering a wide range of services, including primary health care, to rural Vermonters. The program is the Rural and Farm Family Rehabilitation Program operated by the Vermont Extension Service under contract with the Division of Vocational Rehabilitation in the Department of Social and Rehabilitation Services. All of the activities are carried on under the State Plan for the Administration of the Program of Vocational Rehabilitation and most of the funding is derived from Section 110 of the Rehabilitation Act (basic program support funds to the state for vocational rehabilitation activities).

The Rural and Farm Family Rehabilitation Program (RFFRP) uses the time-tested and highly successful vocational rehabilitation service delivery model. The focus of this process is the individual, his total problems, strengths, and needs in the development of a comprehensive plan of services (including health care/restoration services) which will promote employability. Under RFFRP this concept is expanded to survey the needs of the entire family including an analysis of the problems and potential of available land and/or agricultural resources and the social problems experienced by the family as a functioning unit.

The vocational rehabilitation program and RFFRP are not primary health care providers. However, their excellent system of comprehensive, problem-oriented evaluation, their knowledge of the wide range of health care and other essential health related services available in the community and their process of coordinating and brokering these services in a systematic, goal-oriented fashion has made both programs highly successful in achieving cost-effective rehabilitation outcomes.

We have assembled a variety of reports and evaluations* of program effectiveness for your review. We think you will agree that this more global approach to meeting the needs of rural people has merit. It is effective because it is focused and problem-oriented; not, as is many times the case, an undifferentiated, "shotgun" approach for meeting human problems. It is efficient because it does not create duplicate services but rather identifies and orchestrates services already available and brings them to bear in a meaningful way. Finally, it is comprehensive in that all of the elements that contribute to the quality of life are considered and a plan is developed which upgrades the entire family situation; economically, socially, and medically.

Both the Extension Service and this department would be most happy to provide you with additional information or to testify in behalf of the Rural and Farm Family Rehabilitation Program.

Enclosures.

FAMILY SERVICES PROVIDED BY THE RURAL AND FARM FAMILY REHABILITATION PROGRAM [1]

The primary objective of the RFFRP is to provide vocational rehabilitation services to eligible members of farm families and to rural families having an agri-

---

*Due to cost considerations all the reports and evaluations were not published, they will however be retained in committee files.

[1] Prepared by Enoch Tompkins, Trainee-Evaluator-Statistician and Sharon Howard, Social Services Coordinator, Jan. 5, 1976.

cultural background or interest. However, in addition to working with eligible members, the Program also is concerned with solving problems that other members of the family may be facing.

When our Program becomes involved with a client, we gather information not only about the client but also about other members of his family. For this purpose we have developed a document called a case history form (see Appendix). During one of the early contacts with the client, the Rehabilitation Aide (or counselor, if appropriate) completes one of these forms with the client or his (her) spouse.

The case history form is designed to give a thorough picture of the family of a RFFRP client, to help Program staff to better evaluate and serve the needs of families.

Specific purposes of this form are:

1. To discover if there are any family members who have a disability or employment handicap.
2. To learn about the educational background of family members and their interest in receiving training for some type of employment.
3. To learn what agencies and organizations the family has had contact with and to stimulate more use of these by the family.
4. To learn what resources the family has which may be used for producing income.
5. To learn what sources of income the family has and the amount.
6. To discover the financial situation of the client family, its assets, liabilities and net worth.
7. To find out what interests and desires for improvement the family members may have and to stimulate them to be thinking about this.
8. To learn what hobbies the members have. Sometimes these may be developed into an income-producing business.
9. To learn what type of housing the client family has and what sort of improvements may be needed.
10. To discover what land resources the family has that may be used as a source of income or for a garden.
11. To find out if the family members have any interest in gardening, beekeeping, making Christmas decorations, or other activities which may be developed into an income-producing enterprise.
12. To identify family social service needs and to work out a plan, with the family, for providing these services.

To accomplish this last objective, the latter part of the case history form contains a "family problem form". This form lists a number of possible problems and, for each, there are spaces for the following information:

1. Is there a need?
2. The name of the family member (or members) involved.
3. When the service should be provided.
4. The action or agency needed to provide the service.

There are sections in the family problem form pertaining to:

1. Health and nutrition.
2. Agency and program services.
3. Employment and income.
4. Water supply and waste disposal.
5. Money management.
6. Child care and family planning.
7. Housing problems.
8. Educational needs.
9. Gardening possibilities and needs.

Whenever a problem is identified, the appropriate spaces are filled in with the necessary information.

Problems identified in the family problem form generally lead to the necessity of a "family service plan". This is a plan for making use of the services of various agencies and programs for meeting the needs of family members as identified by the "family problem form". The "family service plan" is an agreement between family members and a member of the RFFRP staff, who have decided together in what areas the family could benefit from services. When appropriate, the staff member will make referrals and followup with the agency and client to insure satisfaction. The client agrees to cooperate with the agency and to keep whatever appointments are necessary. A section of the case history form is provided for keeping a record of referrals made, the purpose of the referral and the results.

During fiscal year 1974–75, this Program worked with 422 families. These families included about 1,815 individuals. Family service plans were written for many of these families. As the result of needs identified, many services were provided by this Program such as:

1. Assistance in filling out a medical history form, prior to a visit to a doctor, for a client who couldn't read or write well.
2. Counseling a family member to provide motivation for continuing with a program of being tutored.
3. Counseling and guidance in problems of adjusting to adult life.
4. Assistance in filling out applications for the supplemental food program.
5. Counseling and guidance in setting up a family account system and on budgeting.
6. Contacting an electric company to make arrangements for the client to make payments on a large electric bill and so have the service continued.
7. Providing in-depth counseling and motivation for a client to give up smoking.
8. Assessment of farm management problems plus follow-up and coordination of services based upon recommendations from the county agent and the agricultural specialists involved.
9. Evaluation of the potential for income from a family farm.
10. Long-term work with a family in attempting to develop their independence from social agencies.
11. Assistance in liquidating a farm operation.
12. Counseling and guidance on family problems.
13. Followup on recommendations and advice from The UVM Agricultural Extension Service to motivate clients to follow the advice given.
14. Coordination and followup with banks and FHA for joint meetings on the purchase of a farm by a client.

Many problems were uncovered in working with these families. When appropriate, clients or members of their families were referred to other agencies, organizations or individuals for services. During the fiscal year ending June 30, 1975, a total of 3,433 referrals of this type were made. Table 1, gives a listing of the agencies, organizations and individuals referred to and the number of referrals made to each. Referrals to medical doctors accounted for 481 or 13 percent of all referrals made. These were mostly for the purpose of general medical and special examinations. Dentists ranked second with 9 percent of the referrals. The purposes of these were for dental examinations, restoration, extractions and dentures. Community action agencies received 6 percent of the referrals. Referrals to the Department of Social Welfare accounted for five percent. These referrals were for such services as Aid to Needy Families with Children, food stamps, and Medicaid. Another 5 percent of the referrals went to County Extension Service Agricultural Agents. County agents helped with advice on, and evaluation of, such things as: raising replacement heifers, income tax assistance, market gardening, land lease problems, culling cattle, farm accounting, barn construction, barn ventilation problems, milking systems, goat raising, farm record books, seeding practices, etc. Many other agencies, organizations and individuals are listed in Table 1, to give an idea of the many people who provide assistance to clients and members of their families as the result of the interest that RFFRP shows in client families.

A more recent period, from July 1 through October 30, 1975, shows only minor changes percentagewise, from the previous fiscal year. Medical doctors showed a 2 percent decline in proportion of total referrals. Community action agencies showed a similar decrease. Referrals to the Farmers Home Administration moved from 4 percent of the total to 6 percent. Department of Social Welfare referrals dropped slightly from 5 to 3 percent. Referrals to adult education programs doubled in proportion from 3 to 6 percent. Medical consultant referrals increased from 4 to 5 percent of the total. Those made to community mental health agencies showed an increase from 1 to 3 percent. Referrals to the Vocational Rehabilitation Division increased from 1 to 2 percent. Those to farm equipment dealers experienced a similar increase.

TABLE 1.—RFFRP REFERRALS TO OTHER AGENCIES, ORGANIZATIONS, AND INDIVIDUALS, JULY 1, 1974, THROUGH JUNE 30, 1975, AND JULY 1, THROUGH OCT. 31, 1975

Agency, organization or individual	Referrals			
	July 1, 1974 to June 30, 1975		July 1, 1975 to Oct. 30, 1975	
	Number	Percent	Number	Percent
Medical Doctors	481	13	126	11
Dentists	337	9	101	9
Community Action Agencies	202	5	41	4
Department of Social Welfare	191	5	40	3
Extension Service Agricultural Agents	187	5	42	4
Farmers Home Administration	159	4	70	6
Optometrists	137	4	43	4
Medical Consultant	132	4	55	5
Department of Employment Security	98	3	35	3
Adult Education Programs	97	3	73	6
Hospitals	91	2	35	3
Farm Supply Businesses	85	2	17	1
Attorneys	69	2	12	1
Community Mental Health Agency	55	1	37	3
Social Security Administration	53	1	16	1
Banks	49	1	15	1
Extension Aides (UVM)	43	1	10	1
Vocational Rehabilitation Division	44	1	19	2
Employers	40	1	13	1
Social and Rehabilitation Services	33	1	15	1
Vocational Schools	32	1	9	1
Production Credit Administration	31	1	3	(1)
Farm Equipment Dealers	31	1	26	2
Vermont Legal Aid	28	1	7	1
Extension Service Youth Agents	23	1	9	1
Soil Conservation Service	22	1	3	(1)
Extension Service Specialist	21	1	1	(1)
Spaulding Evaluation Project	21	1	3	(1)
Rehabilitation Medicine Services	19	1	0	0
Real Estate Agents	18	(1)	0	0
School Guidance Counselor	18	(1)	5	(1)
Opticians	17	(1)	5	(1)
Vershire Shop	17	(1)	15	1
Dental Clinics	17	(1)	3	(1)
Veterans' Administration	16	(1)	7	1
Hitchhike Program	16	(1)	0	0
Vermont Association for the Blind	16	(1)	2	(1)
Orthopedic Appliance Suppliers	15	(1)	5	(1)
Colleges	15	(1)	4	(1)
Vermont Rehabilitation Corporation	15	(1)	1	(1)
Other	673	18	218	19
Total	3,687	100	1,148	100

[1] Less than 0.51 percent.

STATEMENT OF WESTON L. BLANCHARD, CHIEF, MEDICAL CARE FACILITIES, STATE OF VERMONT, AGENCY OF HUMAN SERVICES, DEPARTMENT OF HEALTH, BURLINGTON, VT.

The following comments and statistics are submitted in response to your letter of December 18, 1975 inviting testimony concerning rural health care in Vermont. Since only two or three areas in Vermont could be considered even semi-urban, this testimony is based on the assumption that the whole State is essentially rural. These are my personal comments and observations and may or may not reflect the official position and philosophy of the Vermont Department of Health.

Medical facilities include hospitals, nursing homes, certain mental and rehabilitative institutions, and outpatient facilities (clinics). Home Health Agencies and the State District Nurse organization also play a vital part in a rural state such as Vermont. The State has some 400 Homes for the Aged and Community Care Residences which are not classified as health facilities. However, since nearly all of the residents in these homes are over 65 years of age, this type of facility must be included in any comprehensive plan for health care for the elderly.

We feel that the development of an efficient health care system must be based on a close working relationship between the various health providers such as the primary physician, nursing home, home health agency, and hospital. Close and continued communication between these providers is essential. We feel the desired communication is sometimes lacking because of the failure of some hos-

pitals to recognize that lower level providers of health care are fulfilling a vital role in the health care system.

The key to a successfully coordinated and efficient health care system lies obviously with the physician, especially at the primary level. Nearly all physicians recognize and accept their responsibility in this regard. However, many physicians are reluctant to accept and adhere to a health care system that they feel dictates how they must practice medicine. They also feel (with some justification) that the federal programs, especially Medicare/Medicaid, are unrealistic and not orientated to obtain a high level of patient care.

In attempting to develop and maintain an efficient and effective health care plan, especially for the elderly, we inevitably face the question of service to patients versus the efficient and economical operation of health care facilities. An acceptable solution must involve some reappraisal of our goals and establishment of priorities. Because of economic restraints, we cannot provide a complete medical service in every village of 500 people. Health facilities should be located to provide convenient service to the great majority of citizens but the availabilty of health professionals, particularly physicians, has to be a realistic consideration.

Traditionally the hospital has been the key to health care—Vermont has 17 community hospitals located generally in the larger cities and towns. Some Vermont citizens, in the Connecticut Valley, utilize hospitals in New Hampshire. We estimate that 98% of our residents live within 30 miles of a hospital. Somewhat isolated communities (especially in winter) such as Island Pond, Richford, Corinth, Londonderry, etc. are covered by outpatient clinic. Hospital beds are nearly always available as there as surplus beds in this State.

There are 50 licensed nursing homes in Vermont with a total of 3051 licensed beds. Current occupancy is about 96%. They are classified as Skilled, Intermediate or Minimal Care Homes. They vary in size from 16 to 166 beds. All nursing homes participate in the Medicare and or Medicaid Program. There are nursing homes in all counties except Essex and Grand Isle. The location of homes while not ideal is fairly acceptable. As an economic necessity, nursing homes are generally located fairly close to a hospital and where required operating personnel are available. Because of these facts, there are areas of the State where no nursing home is readily accessible.

Certified Home Health Agencies provide coverage for over 98% of the area of the State. They work closely and in some instances are consolidated with the District Nurse service of the Vermont Department of Health. These agencies provide an alternative to institutional care but their service is generally limited to physician ordered health care. A state or federal homemaker program could be of great value and probably eliminate some institutional care.

The whole area of health care is influenced, in some respects adversely, by the federal Medicare/Medicaid Program. This program has achieved positive results in the area of fire safety and to some extent in better organization of provider services. Its weakness lies in its over attention to detail (526 items on the Skilled Care Nursing Home survey form), inflexibility, difficulty of understanding and interpretation, and most of all in that it is not really directed to the improvement of patient care.

STATEMENT OF DR. B. ALBERT RING, M.D., UNIVERSITY OF VERMONT, COLLEGE OF MEDICINE, DEPARTMENT OF RADIOLOGY, BURLINGTON, VT.

RURAL HEALTH CARE—INTRODUCTION

To be worthwhile, any action in the health field must be based on fact and not emotion. The facts are that we have neither money, medical manpower, nor facilities to bring all the possible advantages of medical care now available to all the people of this country who could benefit from them. Consequently we face a compromise before we begin. There must also be some compromise in the availability of primary care. The consumers are more concerned with convenience, those of us in the tertiary centers who see the end results, are more concerned with quality. We can never hope to have instant access high quality medical care within five minutes travel time of every citizen.

This does not mean that rural health care is, or should necessarily be of lower quality than that in metropolitan centers where the best and worst of medical practice often coexists within the shadow of one another. Like questionable business activities and those of other professions, medical incompetence can survive

better in the crowds of megapolis than in the small communities where the cloak of anonymity is lost. The only adverse factor in rural health care is that of physical distance, a problem that can never be completely eliminated although modern transportation has greatly improved the situation.

To be effective, primary health care can not exist in a vacuum. There must be adequate facilities for referral for secondary care and, for a smaller number, tertiary care with the more complex procedures not available in the community hospitals, such as radiation therapy, renal dialysis, neuro- and cardiac surgery with all the ancilliary equipment and personnel required. All three facilities must be constantly upgraded and improved. Contrary to the statement of the previous director of Vermont's Comprehensive Health Planning Board, there is a need for more well trained specialists at the community hospital level, not less. As older practitioners die or retire they must be replaced with a sufficient number of specialty-qualified physicians to meet the needs of the community as they exist at this time—not what they were fifty years ago. It is an absurdity to expect a physician giving primary care to do a good job when he is forced to refer his patients to a physician or facility that he would not consider suitable for treatment of his own family.

I. Outline of System

The system I believe preferable to supply rural areas is regional rather than local, was presented at a UVM Medical Faculty Retreat in 1962 and is similar to the approach developed by the UVM Division of Family Practice. This is fundamentally group practice with at least two men serving a geographic area, the size of which is dependent on population density. Nurse practitioners and paramedical personnel might be used very advantageously in this system. Cambridge, Vermont is an example, halfway between St. Albans and Morrisville where community hospitals and secondary care is available. The advantages of such groups are:

1. They provide routine daily and continuous emergency service to the population within reasonable driving distance.

2. As per your Nos. 6 and 8, such an arrangement allows sharing night and weekend coverage, allowing the physicians to lead a more normal life and to have sufficient free time to maintain medical proficiency by attending meetings and postgraduate educational programs.

3. Such groups serve as a nucleus for services of other agencies such as mental and dental health, counciling, immunization, health education, etc.

4. As per your No. 4, these should be self-supporting and, in addition, would save medical dollars by drawing some patients who would otherwise visit emergency departments in community hospitals at much greater cost in time and money.

(It should be noted that some of the inequality of health care expenditures is due to over-utilization of medical facilities where they are readily available. Emergency room departments, representing an impersonal factor, THE HOSPITAL, must of necessity practice defensive medicine requiring multiple laboratory and X-ray examinations that would not be required by one's personal physician. Those who doubt the truth of this statement should spend some time in our busy emergency rooms and see the procession of minor bruises and contusions that would be better off treated by grandmotherly advice and a pat on the back.)

5. Upgrading the quality of medical care. The best defense against poor quality medicine is the adequacy of good medicine. In addition to the possibilities of improving their own proficiency, a group, being self-sufficient in coverage need not rely on other physicians who are less competent, simply because they are available. The solo practitioner is not as fortunate and since he may be forced to rely on those whose ability is borderline is less free to raise objections to questionable procedures.

II. Disadvantages of this System

1. Incompatibility of physicians. The only answer to this is in trial and error. Some personalities simply can not work as part of a team. For those that cannot, there is a continuous need for family practitioners in larger communities where the team approach is not essential.

2. Lack of acceptance of physicians by the population served. The fact that local citizens are vociferous in their demands for a physician in residence does not mean that they will utilize his or her services. This has happened repeatedly

and can be expected to continue as long as we are a free people in a free country.

(As an example familiar to you, in the twenty plus years since I arrived in Burlington there have been constant clamor for a physician in the north end of Burlington. There have been a long succession of them, the majority leaving simply because they could not make a living. These were not inadequate or disagreeable people. One at least simply moved into town and developed more practice than he can handle.)

3. There are some areas so isolated and culturally unattractive that it is impossible to support a team of physicians. For these areas, where possible, one physician with a nurse practitioner to fill in on coverage is recommended. In extremely bleak and isolated areas it may be necessary to utilize State or Federal help, and the possibility of television linkage from such areas seems promising and might be investigated. A professional life time in such a situation may be unthinkable, but a shorter period for a young physician would be an educational experience. In Sweden, at least in 1958–59 when I lived there, remote areas were served by young physicians as an alternative to the military service that was compulsory for all able-bodied men. This appeared to be satisfactory and was well accepted by both provider and recipient. However, comparison between Sweden and the USA can not be carried too far. The Swedes are a homogenous group, much more accustomed to central control than the heterogenous and independent Americans.

III. Suggestions to implement this system

1. A reasonable rather than hysterical approach, long on thought and short on bureaucracy with local implementation inasfar as possible.

2. Support of family practice training? These problems are largely self-supporting and although they probably could be aided by the judicious use of extra funds, this can be overdone.

(Remember the Federal drive for more psychiatrists some years back? Training programs in psychiatry were made so attractive that our supply of young general practitioners was decimated. What we do *not* need is another great expenditure of money to turn these psychiatrists back into family practitioners!)

3. Direct financial aid to establish group clinics in rural areas? This is a ticklish problem that if poorly administrated, could be disastrous. Some simple efficient manner of getting low cost loans from either State or Federal sources might be helpful. In very bleak areas, some direct assistance may be necessary, this, in effect, becoming either a State or a Federal facility.

4. A plan to develop and coordinate medical transportation. Since physical distance is a problem in rural health care, it would seem reasonable to take some direct action. There are ambulance services available. The Essex Volunteer Rescue Squad, for instance, does an excellent job. However, such services are spotty and cannot be expected to be used much outside their own boundaries. Helicopter service might well be investigated. We get patients from the Air Base in Plattsburgh by air, and patients at Newport would certainly benefit just as much. To refer again to the Swedes, who have had centralized specialty hospitals for years, one of the reasons that the Radiumhemmet in Stockholm, for example, became world famous is that it was the one center for radiation treatment of cancer in the whole country. This, in turn, was possible only because the government arranged and paid for the patients' transportation.

5. Can anything be done about the malpractice insurance problem? The young physician finishing training is already in debt and the constantly escalating cost of malpractice insurance is a very real factor in discouraging young physicians from a gamble in a new area.

6. Simplify the administration of the Federal end of PSROs. I confess complete ignorance in this field. However, when a physician with the capabilities of our former Commissioner of Health, Dr. Robert Aiken, has trouble making progress with the bureaucracy directing this system from Washington, I question whether it can be made workable. The PRSO idea is good but until it works, it is worthless and terribly expensive.

7. Avoid crackpot programs. There are innumerable pseudo medical groups who claim to have found the Fountain of Youth through their particular system. Some of these ideas are good, such as improved nutrition if not carried to faddism, but the cost benefit ratio of all of them must be kept in perspective. The greatest improvement in the Nation's health would be the total abolition of alcohol, tobacco, over-eating, under-exercising and excess vehicular speed.

Even the totalitarian nations are having trouble with the first four; they do fairly well in preventing excess vehicular speed simply by making vehicles less available. This may be a good idea too, but I doubt that it would be very popular.

STATEMENT OF LOUIS L. CHOQUETTE, NORTH CLARENDON, VT.

SUBJECT VERMONT RURAL HEALTH CARE DELIVERY

I have made an effort on this subject to try and find out the model systems of Vermont to solve the problems. I don't see any sure 100% care delivery on health in this area. We have some help from Visiting Nurses Corps which do help the elderly. We have at school dental checks, shots. Those unemployed could get admitted to a hospital if you are eligible under the Hill-Burton act. You have women health clinic one in Rutland at North Main St. and abortions are performed there which I don't call health care. But a Slaughter House and that's our future country mind you. God bless us who live.

But over all health care for humans in Vermont I wouldn't tell you to follow an example for the rest of the Nation. Health care starts by a plan not to say that efforts aren't made for people in Vermont. But I say it could be much better.

For our very small cities in Vermont male and female, and let's forget about abortions. But Health Care for rural areas, as you well know we Vermonters haven't got a class A Health Care Plan. But I say a class F plan. Fair. Not good but fair and very poor in some areas, and give all people in this area an examination from head to foot at least one time a year and a health clinic to be staffed. This way V.D. can be checked which is way up there and if this is so so isn't health problems of other areas of a human body denied a proper checkup. And in the long run what you find as first stage of cancer. Lung ailments, nerve ailments, mental ailments, heart ailments and what have. Neglected children, neglected old.

All these problems can be solved by clinics for a all-around check up of the body, and this clinic is responsible for a certain area, and all people in this area are asked to attend a checkup at a certain time. Blood test, urine test, heart test, eye, ear, note and throat check, and a checkup for veneral disease. Then when they find a human who has an ailment that needs hospital care, this human is sent to the area hospital when a person feels sick. He goes to this clinic which all classes of people should go to this clinic. Poor, rich, and middle, young, old, and middle aged. No one left out in left field. Now you need people who are capable to do this check up and they work the year around in this clinic. All doctors of special skill should be available for advice or help to this human by check-up of his or her whole body and it should be a friendly place to go to. Not only this but treated as a human, not an animal.

Now you got a health plan for rural area towns and cities. You don't have this, so you don't have a health plan in Vermont. Today people are made for money, and I fully believe money is made for people, which I wrote you the solution before. In my letters to you in the past, and I fully believe you know my feelings about a human, they are the most valuable part of earth. As a human—a body, spirit, soul, and mind, no other way. Earth was formed for the life and I am 100 percent for it. But there are too many loopholes in laws today. Where life is not respected as it should be, and as long as I live I shall speak out to you and to all others I approach. I want a change in minds of humans. That all humans are something. They are here for something and it's up to this Nation to find that something why this human is here for a cycle of life on earth.

I don't believe in defeat, but victory to humans. Love is life, not death and mercy killing, abortion, crime, murder is defeat to a nation. It's not a victory but a defeat. It's not health care, it's defeat. Wars are not caused by our creator, but by government and people. The U.S.S.R. is a concentration camp, a stockade. It's people are not free but its government is free to roam earth free nations and cause all kinds of terror to bring their type of government to earth. I don't accept this and the U.N. is out in left field. We don't see or know what really this commie country is up to. When a form of government does not perform its best for the best for people of its nation and earth this form of government has to be put out of commission. War is the last resort.

But what I see that's going on in earth, is that we came from a he and she a family, a tribe and a nation. So within the frame of a nation is the family unit. And when this splits, such as today, towns, cities, counties, states and nations

shall split and to top it all, religion is split. So we as humans are not in tune with God's commands. But the loopholes made by laws is the cause of it and I say its time we as a nation see the light and bring about laws within tune with our creator as with our creator we are something. Without him, our creator, we are nothing but dust. We came, we shall leave in body. A cycle of life on earth is back in earth to all human bodies. Some cycles of life can't even see light. Abortion is not light but death darkness. But I assure you my name is life. Louis in the names of the Bible is the famous war—like Francis, I am free and therefore the U.S.S.R. form of government is not for me. I don't like to be in a stockade of an ungodly government, and I don't intend for this nation to follow suit.

But to follow under our emblem of the Eagle. In God We Trust. A for $85,000.00 per human being for his or her life cycle and this money is used for that cycle of life. In Health Education, His or Her field of work. Which should be to better all life on earth. When we die this money goes back to where it was made. $85,000.00. No inflation, no unemployment, no abortions, no mercy killing, no recessions, no depressions, but a full life.

$250,000.00 for each abortion crime caused by death. Mercy killing and by wars and that nations who starts war. Such as Germany, Japan and Italy. Did in WW II. They pay for each death $250,000.00 and that includes the man who fought and the civilians who got slaughtered and this money be used to care for the unwanted old and the unwanted young. To build to educate, to place his or her field of work and for sure a religious education that he and she is something.

Put our highways underground. Railroads and factories etc. underground, and life go through its cycle and may our death be another step towards a re-born better life. In body soul spirit and mind to still a better life forever and whatever planet I arrive at. I hope its in better shape than earth as earth is in bad shape. Seeing that God created us free we haven't seen freedom yet.

And I say 1976 is time to put in full freedom in full bloom. Without water we are dust. Use that water for all forms of life. More that water such as we do oil. I say water is a secret source of mineral more so than oil as with water its a source of life for all forms of life God's seeds.

So our dry land of this nation and other nations has yet to be life. But death, and the air and soil and sun has yet to be fully used for life. Our highways take up more land than all humans of earth. Which is making earth a ball head not a bloom head, as earth is life its short. But there is a life to come that will be forever. Time never stops and so does earth never stop its moving. So its time us humans with a mind, soul, spirit and a body which is created not manufactured. But created for something let's find why this human came he and she may be the link to the field of the unknown source of blessings, to a better life.

Peter is the rock, and even he was not perfect, and he denied the Son of God 3 times Jesus. So let's not get all uneasy what happened yesterdays. But today, as tomorrow has yet to come. But today is here. Let's do something today, to better tomorrow and of course Choquette not in the Bible but my coat of arms is to approach. Afar God's greetings and God's blessings, is the best source of power I can gift you with.

STATEMENT OF JOHN P. RICHWAGEN, EXECUTIVE VICE PRESIDENT, THE RUTLAND HOSPITAL, INC., RUTLAND, VT.

I received your notification concerning the Hearing scheduled for February regarding Vermont Rural Health. Your newsletter intrigued me because I personally feel that the health care as it is rendered in Vermont is of very high quality and with a minimum of duplication and expense. Unfortunately, many Vermonters are not aware of the quality of health care that is available to them. They also are not aware that this service is provided at reasonable cost. I think we all tend to generalize concerning everything today and we have been bombarded in the news media concerning the general health problems in the nation as a whole. I have heard many patients tell me that they think very highly of the Rutland Hospital but question the health system as a whole. When I asked them exactly what they mean, they really have no specific facts upon which they base their comments. They are merely expressing a general feeling that they have and I believe this feeling has been obtained from reading the news media.

In response to your newsletter, I would like to cite several areas that I believe could be utilized as model systems in solving health problems in rural areas.

First, Vermont is a small state and the relatively small number of hospitals have always cooperated very well together. Also, this state is not by any means rich and the communities have looked to the hospitals to provide leadership in solving the problems of health care delivery at a reasonable cost. This has implied that the smaller hospitals need to cooperate with the larger hospitals in obtaining specialized types of services. We have seen this type of cooperation and sharing of services develop over a number of years. It is very difficult to draw a line as to what services should be provided in a community and which services should be provided at a University Medical Center setting. There always has been a tug-of-war regarding these two situations. A lot depends on the quality of services that can be rendered in the community, the volume of services that can be rendered and the overall impact of cost on the community.

Where such services can be provided at a reasonable cost and with good quality, it is my personal belief these should be provided at the community level so that this care is immediately available to its citizens. I think one of the most successful programs that have come out in recent years is the Perinatal Program offered by the Medical Center Hospital of Vermont. This involves the local community hospitals cooperating with the Medical Center and having consultants come down to meet with local nurses and physicians in the maternity and pediatrics departments. Educational programs provided are, joint visits at each hospital so there is consistency of activities at both hospitals and infants with certain types of diseases and medical problems are transported upon birth, immediately after stabilizing, to the Medical Center Hospital by ambulance or helicopter to the Newborn Intensive Care Unit. This is an excellent program because local community hospitals just could not afford the type of care that the Medical Center can provide in such a case.

Other examples of cooperation of hospitals in Vermont for many years has included renal dialysis at the Medical Center Hospital and x-ray therapy at that hospital. The Rutland Hospital does not provide either service. We have an old ortho-voltage machine that we use very seldomly and only to provide for the comfort and convenience of patients with terminal cancer.

There is one other sharing of services that could be a factor in the future provision of health services in Vermont. The local community hospital usually has a well staffed laboratory. In order to upgrade the quality of the laboratory services in the hospital, a large volume is required. The hospital can obtain this volume by providing laboratory services for physicians in the community. The physicians are also provided with more convenient testing procedures, better quality and reasonable cost. I see this as a program that could be developed in the future, both here and elsewhere to a much greater extent than in the past. The automation of hospital laboratories and the escalating cost of providing such services indicates a great need in rural areas for this type of cooperation.

These are some thoughts that I have had at this point concerning health services in a rural area. As is indicated here, it is my firm belief that there is no magic to the provision of health services, it requires a lot of hard work and close cooperation by everyone. I think we have seen this happen in Vermont over a period of many years and it is continuing today. There is no question that the cooperation could be better than it is, but I feel there has been good cooperation and this will continue.

I hope my comments have been helpful to you and your committee. I would be very happy to provide further information at any time.

STATEMENT OF DR. TERENCE F. GAGE, M.D., ORLEANS, VT.

Your planned Rural Health Seminar may well provide some common denominators that could be effectively utilized in health care delivery.

I have functioned as a provider of medical care to a rural area as a medical physician and proprietor of a rural clinic offering salary guarantee to medical associates for the past 25 years.

As our society progressed with the legislation that has evolved, even as remote as we are, the problems we experience grow in direct proportion with this legislation. Without detail, the fundamental thrust rest with government fragmentation of medicine; we have a bit for the poor, the old, the disabled, the Indians, veterans, city core; further fragmented for heart, kidneys, etc.; however, never enough to satisfy an individual group. It is but a stimulation for a fear to monopolize on its benefits yet provide a diminished return for the intended beneficiaries.

As you do, I also believe in our system of government and we must allow its basic principles to function, namely supply and demand and the controls of normal competition. These basic principles may well lead us from our problems with neither bankruptcy or inflationary effect should we recognize the common denominator as one of poverty for rural America, inner core city or Indian medical problems, etc.

We must search for that leader who can find the strength to bring all these fragmented programs together and allow our basic principles to be that effective tool which has served us well for 200 years. It remains possible.

A simple measure to allow the I.R.S. to refund each taxpayer that amount which exceeds 10% of adjusted gross income as reported on 1040 would automatically be effective for medicaid—medicare—Veterans—Indians—catastrophic insurance, etc. We already have with the I.R.S. the bureaucracy and no more is required and the police force is already in effect.

With this program and the destruction of these false subsidy programs, we will see the proper distributions. As in all business, where demand arises, supply does follow if the economics should allow. For a complicated problem this solution may seem far too simple, yet I would encourage you to think about it occasionally.

It could be to advantage to review the facilities at Island Pond and Hardwick where the Federal Government has subsidized these area facilities. In the same area why can we operate without subsidy and they require so much? With examination I believe you, too, will be convinced that fragmentation and subsidy are a poor choice; a pure and simple way could evolve.

This remains a heavy responsibility for a legislator to identify that path which deliver the solutions we seek; I trust that which I write may encourage you.

STATEMENT OF JOSHUA BROWN, PATIENT, ST. JOHNSBURY REGIONAL HOSPITAL, ST. JOHNSBURY, VT.

I appreciate receiving your newsletter and bulletin, and desire to continue to receive them.

On the subject of rural health care, my own experience has been with the St. Johnsbury area, which is served by an excellent, modern regional hospital. On the whole I think that the St. Johnsbury facility is something of a model one; not being in the medical field, I cannot speak for the technical or medical side of the question, but from the side of patient and community satisfaction I would say that we have a very good thing going.

Because many of the patients and their relatives and friends live at some distance (up to 30 miles) from the hospital, there are always some difficulties which arise from this condition. One of the very helpful answers to this is the close cooperation that the local radio station has with the hospital, daily announcing admissions, discharges, and births. This might be encouraged in other areas if it is not practiced there.

Aside from hospital care, there is also the problem of being able to see a physician. Virtually all of the physicians in the area have their offices in St. Johnsbury, meaning a trip in to see them, This constitutes a hardship for a number of the older people in our town of Peacham, and, I am sure, in other towns as well, where older people make up a large proportion of the population. This problem of reaching the physicians' offices is aggravated by the fact that older people often need more frequent medical attention, and often are more restricted and dependent in their means of transportation.

One possible provision which might be made for such people, if this seems to be a fairly widespread problem, would be to set up some sort of regular transport to outlying rural centers; a number of towns in Massachusetts, where I go to college, have such a service in the form of a small bus or van which makes a daily or semi-weekly trip from the town out to the hospital.

I hope that this proves useful for you.

STATEMENT OF DR. JOHN G. LONG, D.D.S., DIRECTOR, DENTAL HEALTH DIVISION, VERMONT STATE DEPARTMENT OF HEALTH, BURLINGTON, VT.

DENTAL PUBLIC HEALTH IN VERMONT

All dental health services purchased or provided by the State of Vermont are coordinated by the Dental Health Division with a staff of 14 employees—two

dentists, one coordinator, eight registered dental hygienists and three secretaries. The Division has three basic programs: fluoridation, dental health education and the Agency of Human Services Coordinated Dental Health Program.

Fluoridation services include fluoridating community and school water supplies and providing weekly surveillance and monitoring of all fluoridated water supplies. Vermont ranks second nationally with 25 per cent of the nation's 200 fluoridated schools. More than 50 per cent of the people on community water systems are receiving fluoridated water.

Dental health education is provided state-wide to elementary school children by eight registered dental hygienists. During FY 75, they traveled over 100,000 miles and provided dental health education for 60,476 children. They also made 88,452 dental inspections and referred about 16,000 children for dental care.

The combined effect of the Division's preventive programs is documented in an enclosed news release of 10–10–75.

Agency of Human Services Coordinated Dental Health Program—This program ensures maximum utilization of Agency of Human Services resources in purchasing and providing dental health services for residents of State institutions and clients covered by State and Federal dental care programs. During FY 75, more than 27,000 payment claims were approved for the Denticaid, W.I.N., Vocational Rehabilitation Division, Foster Children and Children's Comprehensive Dental Health Programs.

	Payment claims	Total cost	Average cost
Total	27,173	$1,849,499	
Denticaid	14,329	955,052	$66.65
W.I.N.	330	91,765	278.07
Vocational rehabilitation	604	123,412	204.32
Foster children	827	49,270	59.57
Children's comprehensive dental health program:			
State share	11,083	379,823	34.27
Parent share		250,177	22.72

The dental care programs have dramatically reduced the prevalence of dental disease among Vermont's children. In the past four years, the percentage of children with an unmet dental need has dropped from 60 percent to 38 percent, while the percentage of filled teeth has increased from 46 percent to 64 percent.

Research and survey projects are conducted annually to evaluate on-going programs and identify areas of need. During FY 75, DMF–T data were collected on 14,300 fourth and sixth grade school children and pre- and post-fluoridation DMF–T data were also collected on 4,000 school children. An evaluation study was initiated on the Children and Youth Dental Project to compare two types of delivery of dental services. A copy of the first quarterly report of FY 76 is enclosed.

Quality control is primarily maintained by regulations that require prior authorization of treatment plans and final approval of payment requests. There is a difference of 10 to 25 percent between the requested fees and the authorized fees. A State fee schedule indicates the maximum amount allowed for services most frequently performed. Presently, the State of Vermont is purchasing about $1.8 million worth of dental services. Without the fee schedule and prior authorization, the dental services purchased would cost $180,000 to $450,000 more.

All dental services are purchased from the private sector except for those purchased from Vermont Dental Care Program, Inc., a non-profit organization that maintain seven dental clinics throughout the State.

About 20,000 Welfare recipients under age 21 are eligible for dental services, and during FY 75 about 60 percent or 12,000 received dental care under the Denticaid Program.

At the present time, 7,818 families with 19,010 children are enrolled in the Children's Comprehensive Dental Health Program, more fondly known as the Tooth Fairy Program. About 60 percent or 10,000 children will receive dental services under this completely State-funded program this year. Regulations and program guidelines are enclosed. Based on Bureau of Labor statistics, approximately 50 percent of Vermont's school children are eligible for partial financial support for dental services under the Tooth Fairy Program. The target popula-

tion is about 30,000 children, and each year about 60 percent of the children are enrolled in the program. For the past two years, more than half of the children enrolled have received services.

Since all of the dental care programs are administered by the Dental Division, the cost of administration is three percent. Approximately $1.8 million worth of dental care is purchased for more than 27,000 patients at a cost of $50,000.

In the past five years, the number of practicing dentists in Vermont has increased 50 percent from 160 to 240.

All of the dental care programs receive State and Federal funds except the Tooth Fairy Program, which is completely State-funded.

C. & Y. Dental Project

FISCAL YEAR 1976 FIRST QUARTER REPORT

This report covers the period of July 1 to September 30, 1975 and includes five statistical tables on utilization and cost of dental health services provided by the Winooski Dental Clinic and two private practitioners in St. Johnsbury,

According to *Table 1*, a total of 204 patients were treated. The Winooski Clinic treated 169 patients, while the St. Johnsbury dentists treated only 35 patients. Each area has an eligible target population of approximately 650 clients. It is significant that 86 per cent of the St. Johnsbury patients were covered by the Children's Comprehensive Dental Health Program, and only 14 percent of the Winooski patients were covered by the Children's Comprehensive Dental Health Program. Sixty-seven per cent of the Winooski patients were completely C & Y funded, while 12 per cent of the St. Johnsbury patients were completely C & Y funded. Only two per cent of the St. Johnsbury patients were funded by Denticaid.

Table 2 indicates that $12,645 were expended during this quarter, and 92 per cent of the funds purchased services rendered by the Winooski Dental Clinic. Also, 99 per cent of the C & Y funds were spent at the Winooski Dental Clinic.

Table 3 shows that 83 per cent of the patients were treated at Winooski, and 92 per cent of the funds expended also went to the Winooski Clinic. The $39 difference in average cost per claim can readily be explained. Most of the patients (86 per cent) treated at St. Johnsbury were covered by the Children's Comprehensive Dental Health Program, while only 14 per cent of the patients treated at Winooski were covered by the Children's Comprehensive Dental Health Program. These patients are young (below age 14) and require less expensive dental services. As stated above, only two per cent of the St. Johnsbury patients were covered by Denticaid. These patients have an upper limit of 21 years of age and tend to require more dental services and more expensive services. Also, 66 per cent of the Winooski patients were covered by C & Y only, and these patients also required more and expensive services. Actually, only one Denticaid patient was treated in St. Johnsbury during this three-month period. The Winooski Clinic treated 31 Denticaid patients during the same period.

Table 4 indicates that 62 percent of the funds expended were C & Y funds. The remaining 38 per cent split almost evenly between Denticaid (18 per cent) and the Children's Comprehensive Dental Health Program (20 per cent).

According to *Table 5*, the initial average cost of dental care ranged from a low of $38 in St. Johnsbury to a high of $75 in Winooski, and the average cost of recall care was $36 and $50, respectively. The per cent reduction in cost was 33 per cent for Winooski and five per cent for St. Johnsbury.

At the present rate, the Winooski Clinic is treating about five times as many patients as the St. Johnsbury dentists, and the cost of initial dental care in Winooski ($75) is double the cost in St. Johnsbury ($38). The cost difference is easily explained, but the wide difference in utilization should be investigated.

DENTAL HEALTH OF PRE-SCHOOL CHILDREN CONTINUES TO IMPROVE

Due primarily to the efforts of the Dental Division of the Vermont State Department of Health, the incidence of dental disease in Vermont pre-school children is constantly decreasing. In 1972, almost 50 per cent of the pre-school childern were affected by dental disease. Recently collected data reveal that in 1975 33 per cent of the children are affected by dental disease. This represents a 30 per cent decrease in three years. Expressed in terms of children, it means that in 1972 about 10,000 Vermont pre-school children were free of obvious dental disease, and in 1975 over 13,000 were decay-free. The Division's prevention programs are effectively reducing dental disease among our very young children.

TABLE 1.—NUMBER AND PERCENT OF CHILDREN TREATED BY PROGRAMS FUNDING SOURCE IN 2 C. & Y. AREAS

Program	Children treated				
		Winooski		St. Johnsbury	
	Total	Number	Percent	Number	Percent
All programs	204	169	100	35	100
Children's comprehensive dental health program	55	25	14	30	86
C. & Y.	117	113	67	4	12
Denticaid	32	31	19	1	2

TABLE 2.—FUNDS EXPENDED BY AREA AND PROGRAM SOURCE

Program	Total	Winooski		St. Johnsbury	
		Number	Percent	Number	Percent
All programs	$12,645	$11,611	92	$1,034	8
Denticaid	2,229	2,147	96	82	4
State share—Children's comprehensive dental health program	2,520	1,862	74	658	26
C. & Y.	7,896	7,602	96	294	4
All C. & Y.	6,847	6,787	99	60	1
C. & Y. share—Children's comprehensive dental health program	1,049	815	78	234	22

TABLE 3.—NUMBER AND PERCENT OF CHILDREN TREATED BY C. & Y. AREA AND AVERAGE COST PER AREA

Program	Total	Winooski		St. Johnsbury	
		Number	Percent	Number	Percent
Children treated	204	169	83	35	17
Funds expended	$12,645	$11,611	92	$1,034	8
Average cost	$62	$69		$30	

TABLE 4.—PERCENT OF FUNDS EXPENDED BY SOURCE

	Amount	Percent
All sources	$12,645	100
Denticaid	2,229	18
Children's comprehensive dental health program	2,520	20
C. & Y.	7,896	62

Almost 1,600 pre-school children are examined by staff dental hygienists each year at well-child and other pre-school clinics. These clinics present a unique opportunity for staff hygienists to provide dental health services for the parents and the children simultaneously.

The Denticaid and Tooth Fairy programs, administered by the Dental Division, are making a significant impact on the dental health of the pre-school children. The percentage of children with an unmet dental need has dropped from 40 per cent to 25 per cent, while the percentage of filled teeth has increased from 18 per cent to 39 per cent. This tremendous increase in filled teeth is the result of the Dental Division's inspection and referral efforts and the dental care programs which make it possible for low-income families to seek dental care for their children at an early age.

The Dental Division's efforts to prevent and control dental disease include fluoridation of community and school water supplies and a variety of dental health education activities such as supervised toothbrushing, dental flossing, fluoride mouthrinses and dietary instruction. Hopefully, in the not too distant future, dental disease will not be the most widespread disease of pre-school and school-age children in Vermont.

TABLE 5.—COST OF DENTAL CARE FOR PATIENTS RECEIVING INITIAL DENTAL CARE AND THOSE ON 6-MO RECALL

	Total				Winooski				St. Johnsbury			
	Patients	Cost	Average cost	Percent difference	Patients	Cost	Average cost	Percent difference	Patients	Cost	Average cost	Percent difference
Initial care	150	$10,707	$72		134	$10,085	$75		16	$622	$38	
Recall care	51	2,333	45		33	1,681	50		18	652	36	
Difference			27	38			25	33			2	5

4TH AND 6TH GRADERS DMF-T SURVEY

Year	Children						Teeth						
	Total ex.	Average DMF-T	With 1 or more DMF-T		With 1 or more D		Total DMF-T	Decayed		Missing		Filled	
			Number	Percent	Number	Percent		Number	Percent	Number	Percent	Number	Percent
1972	8,119	5.2	7,197	88.0	4,838	59.0	42,197	19,177	45.0	3,640	9.0	19,380	46.0
1973	10,370	4.9	9,007	86.0	5,671	54.0	50,370	20,539	40.0	5,112	10.0	24,719	49.0
1974	13,780	4.4	11,549	83.8	6,037	43.8	60,687	19,355	31.8	5,543	9.1	35,789	58.9
1975	14,307	4.5	12,045	84.2	5,452	38.1	65,013	15,946	24.5	7,213	11.1	41,854	64.4

1974-75 DMF-T SURVEY OF VERMONT 4TH AND 6TH GRADERS BY COUNTY

Year	Children						Teeth						
	Total ex.	Average DMF-T	With 1 or more DMF-T		With 1 or more D		Total DMF-T	Decayed		Missing		Filled	
			Number	Percent	Number	Percent		Number	Percent	Number	Percent	Number	Percent
Total	14,307	4.5	12,045	84.2	5,452	38.1	65,013	15,946	24.5	7,213	11.1	41,854	64.4
Addison	1,010	4.3	840	83.2	401	39.7	4,336	1,082	25.0	358	8.3	2,896	66.7
Bennington	1,087	4.9	929	85.5	473	43.5	5,337	1,448	27.1	791	14.8	3,098	58.1
Caledonia	822	5.1	705	85.8	292	35.5	4,154	898	21.6	496	11.9	2,760	66.5
Chittenden	1,954	4.3	1,584	81.0	563	28.8	8,452	1,449	17.1	555	6.6	6,448	76.3
Essex	174	4.8	159	91.4	84	48.3	834	257	30.8	129	15.5	448	53.7
Franklin	1,199	4.3	1,005	83.8	542	45.2	5,194	1,607	30.9	555	10.7	3,032	58.4
Grand Isle	146	4.9	127	87.0	62	42.5	718	159	22.1	52	7.2	507	70.7
Lamoille	379	4.8	322	85.0	140	36.9	1,812	436	24.1	231	12.7	1,145	63.2
Orange	711	5.0	610	85.8	307	43.2	3,545	1,046	29.5	360	10.2	2,139	60.3
Orleans	707	4.4	611	86.4	354	50.1	3,121	1,196	38.3	353	11.3	1,572	50.4
Rutland	1,900	4.2	1,529	80.5	704	37.1	8,060	2,015	25.0	1,182	14.7	4,863	60.3
Washington	1,479	4.7	1,286	87.0	488	33.0	6,944	1,406	20.2	738	10.6	4,800	69.2
Windham	1,134	4.9	995	87.7	417	36.8	5,496	1,128	20.5	707	12.9	3,661	66.6
Windsor	1,605	4.4	1,343	83.7	625	38.9	7,010	1,819	25.9	706	10.1	4,485	64.0

PRESCHOOL DMF-T DATA

Year	Children						Teeth						
	Total ex.	Average DMF-T	With 1 or more DMF-T		With 1 or more D		Total DMF-T	Decayed		Missing		Filled	
			Number	Percent	Number	Percent		Number	Percent	Number	Percent	Number	Percent
1972	965	2.2	447	46.3	380	39.4	2,148	1,691	78.7	65	3.0	392	18.3
1973	885	1.7	359	40.6	281	31.8	1,526	1,016	66.6	63	4.1	447	29.3
1974	1,547	1.6	586	37.9	385	24.9	2,461	1,413	57.4	72	2.9	976	39.7
1975	1,583	1.5	522	33.0	394	24.9	2,346	1,314	56.0	113	4.8	919	39.2

1. The average dental bill a Vermont school-age child runs up is $65 a year.
2. In the past four years 5,000 Vermont children have been added to the numbers who were found *not* to have dental disease.
3. These two facts add up to a savings to Vermont parents of $325,000 over this period; $325,000 that did not have to be poured into their children's mouths.

This savings in parent dollars and child time-and-discomfort can be laid at the door of preventive programs of the state health department's dental division and its Tooth Fairy Program, according to Dr. John Long, state dental director.

Vermont school children and their parents' pocketbooks are reaping significant benefits from these two dental programs, explained Dr. Long.

Each year for the past four, his staff has examined thousands of Vermont school children.

"When this year's data is compared with that collected in 1972, the improved level of dental health is impressive; its impact startling," he declared. In 1972 in Vermont about 14,400 school children had no obvious dental disease. By 1975, this number had leapt to 19,200; an increase of nearly 5,000 in four years.

The division's dental health education program includes supervised classroom tooth brushing, flossing, weekly fluoride rinses and nutritional counseling.

"An added advantage of the educational programs conducted in the schools is that the kids carry their newly-learned dental habits home, they rub off and entire families benefit," commented Dr. Long.

The dental division's fluoridation program promotes and monitors community and school water system fluoridation. Currently 163,000 people in 32 communities and 12,000 children in 51 schools reap the rewards of significant reduction in tooth decay which fluoridated water systems provide.

"It's heartwarming and reassuring to find towns like Woodbury, where school children join in a brush-in four times a year, rinse weekly with fluoridated mouth-rinse, drink fluoridated school water and get regular dental care," exclaimed Dr. Long.

"This year none of Woodbury's students had an unmet dental need. Unfortunately, however, only a few Vermont towns have school children with such a high level of dental health. The town of Woodbury has dramatically demonstrated it can be done; its children are the inspiring, living proof of it. They must all be very proud: they should be."

"In 1972, nearly 60 percent of Vermont's school population needed dental care; now in 1975, it is 38 percent," said Dr. Long in an interview. "This significant reduction is the direct result of the state dental programs of prevention and care. The Tooth Fairy and Denticaid programs contributed much to reduce unfilled, decayed teeth from 45 percent in 1972 to 25 percent in 1975. They can also credit for the tremendous increase in the filling of teeth which needed it (up from 46 percent in 1972 to 64 percent in 1975). During the last fiscal year more than 20 thousand Vermont youngsters received treatment under the Tooth Fairy and Denticaid program. About 7,000 or one-third of these children, had *never* received any dental care!"

DEPARTMENT OF HEALTH, BURLINGTON, VT.

To: Whom it may concern.
From: Dental Health Division, State Department of Health.

The enclosed application for participation in the Children's Comprehensive Dental Health Program is returned to you for the following reason(s):

——— your adjusted income exceeds the income level of $8,750.

——— according to the information on your application, your children, aged 0 to 21, are probably eligible to receive dental care under the Medicaid Program. The Medicaid Program will pay your children's total dental bill. If your children are not eligible for Medicaid benefits, please return the application and we will forward you an eligibility card for the Children's Comprehensive Dental Health Program. For more information regarding the Medicaid Program, please contact your local Department of Social Welfare office.

——— This year, the Children's Comprehensive Dental Health Program is available only to children through eighth grade (entering eighth grade in September 1975).

——— Other _____

_____

_____

If you have questions, please contact this office at 60 Main Street, Burlington, VT 05401, Telephone 862–9676.

Enclosures.

DEAR PARENT OR GUARDIAN: The enclosed Card certifies your eligibility to participate in the Children's Comprehensive Dental Health Program. The eligible persons are listed on the reverse side of the Card. This Card is not valid after the expiration date listed on the Card. Eligibility must be renewed each year. Please contact the dentist of your choice to arrange an appointment for your eligible children, and present this Card to confirm your eligibility when your dependent visits the dentist.

This Card also indicates, by code, the per cent of authorized charges which the State will pay to the dentist. Code A indicates that you pay 25 per cent of the authorized costs; Code B indicates that you pay 50 per cent of the authorized costs. When a treatment plan is authorized by this office, you will receive a statement of total charges and the amount which you will be required to pay to the dentist.

If you have questions, please contact this office.

DENTAL HEALTH DIVISION, *Burlington, Vt.*

Enclosure.

To: Dentists treating residents of Vermont.
From: Dr. John Long, Director, Dental Health Division.
Date: May 10, 1974.

Act 84, the Children's Comprehensive Dental Health Program, stipulates that "the Secretary may, through regulations, authorize emergency treatment for residents who have not attained the age of majority". Accordingly, the program has been expanded to provide emergency dental care for all eligible minor dependents not currently covered by existing dental care programs.

The enclosed Emergency Dental Care Eligibilty Application must be completed and submitted with the standard Authorization Request Form listing the emergency services performed and the requested fee. If the patient is eligible, reimbursement will be made according to the Agency of Human Services Fee Schedule.

Enclosures.

EMERGENCY DENTAL CARE

The Agency of Human Services will authorize payment for Emergency Dental Care rendered to minor dependents (under 18 years of age) of indigent Vermont residents not currently covered by existing dental care programs. *Dentally indigent Vermont residents* are adults residing in the State of Vermont whose annual income does not exceed $8,750 after deducting $750 for each minor dependent from the applicant's household income.

Household income means total income, both taxable and non-taxable, received by all persons of a household in a calendar year while members of that household.

EMERGENCY DENTAL CARE ELIGIBILITY APPLICATION

First Name & Initial of Head of Household	Last Name	Social Security No. of Head of Household

Street	City	State	Zip Code	Telephone No.

Patient's Name	Patient's Date of Birth

1. Household Income $_____
2. Number of minor dependents _____
3. Multiply line 2 by $750 $_____
4. Adjusted income (subtract line 3 from line 1) $_____

This is to certify that the foregoing information is true, and I hereby authorize the Secretary of the Agency of Human Services access to my tax records to verify the above information.

Signature of Parent or Guardian

Date

Emergency Dental Care is defined as those dental services necessary to relieve pain, control bleeding, infection and swelling and treat traumatic injuries involving the teeth and their surrounding structures.

An Emergency Dental Care Eligibility Application signed by the parent or guardian must be submitted to the Dental Health Division, 39–43 Pearl Street, Burlington, VT 05401 with the payment Authorization Request Form (AHS 10M 1/74). Please check box H 321 on the Authorization Request Form.

Children's Comprehensive Dental Health Program—H321

OUTLINE OF PROCEDURES

When Treatment Plan is $20 or Less

1. *Recipient* goes to participating dentist for treatment.
2. *Dentist* checks for valid H321 Eligibility Card and records Card number. Agency of Human Services determines eligibility.
3. *Dentist* furnishes services completing treatment, prepares (checking box entitled H321) and signs all four copies of Claim Form (Authorization Request—Dental Services) and forwards *all* four copies to the Director of the dental health division.
4. *Director of dental health division* checks eligibility, reviews claims, completes "Fee Authorized" column, returns yellow copy to dentist, retains pink copy and forwards white and blue copies through payment channels.

When Treatment Plan is Over $20

1. *Recipient* goes to participating dentist for examination.
2. *Dentist* checks for valid H321 Eligibility Card and records Card number.
3. *Dentist* examines patient, prepares plan of treatment, completes all four copies of Claim Form (Authorization Request—Dental Services) and forwards *all* four copies, *unsigned*, to the Director of the dental health division with radiographs.
4. *Director of the dental health division* checks eligibility, reviews plan of treatment, completes "Authorization" columns, returns forms and radiographs to dentist.
5. *Dentist* provides services to complete treatment plan, enters appropriate date in "Date Performed" column, signs all four copies, retains yellow copy and radiographs and forwards remaining copies to the Director of the dental health division.
6. *Director of the dental health division* checks form for completeness, reviews and authorizes treatment plan changes, retains pink copy, and forwards white and blue copies through payment channels.

State of Vermont

Children's Comprehensive Dental Health Program

CONDITIONS OF PARTICIPATION

Standards of Service

All dental services furnished under these regulations shall be in conformity with the professional standards of the American Dental Association. The efficient expenditure of public funds requires that participating dentists limit their services to those which are reasonable and necessary.

Eligibility of Dentists

Any dentist licensed to practice dentistry is eligible to provide care for beneficiaries, subject to the conditions of the established fee schedule and the regulations of this Program. Payment will be made only for dental services rendered by or under the direct supervision of persons holding a D.D.S. degree or a D.M.D. degree.

Eligibility of Patients

Eligibility for dental care will be determined by the Agency of Human Services, and evidence of such eligibility shall be furnished to the parent or guardian of the patient. The responsibility for confirming an applicant's eligibility status rests with the participating dentist. If such is in doubt, it should be cleared with the dental health division of the Vermont State Deparment of Health.

Authorization

Prior authorization is required for any treatment that exceeds $20.

Services

The program will provide all indicated dental treatment necessary to maintain the total dental health of the patient, including:

(a) Complete examination and diagnosis including radiographs when indicated,

(b) Elimination of pain and infection,

(c) Treatment of injuries,

(d) Elimination of diseases of bone and soft tissue, including appropriate personal oral hygiene instruction,

(e) Treatment of anomalies,

(f) Restoration of decayed or fragmented teeth,

(g) Replacement of missing teeth,

(h) Treatment of mal-occlusion with priority for interceptive treatment, disfiguring and handicapping mal-occlusion,

(i) Early detection of oral manifestations of systemic diseases and treatment of oral lesions, and

(j) Periodic re-call for preventive and treatment services.

Periodontal and orthodontic treatment will be considered by report. A patient receiving dental services may be called for clinical examination at the discretion of the Director of the Dental Health Division on a pre- and post-treatment basis.

Acceptance of Fee Schedule

The fee schedule prepared and adopted by the Agency of Human Services was based on information provided by the American Dental Association Fee Survey, the Veterans Administration Fee Schedule, from states with on-going dental care programs and from members of the Vermont State Dental Society. Occasionally, a reasonable deviation from the established fee schedule will be allowed in cases of unusual difficulty. Additional detailed information will be required to justify the deviation.

The fee listed for a given professional service to a beneficiary is the full and total amount the practitioner may charge (other than approved deviations); it may not be supplemented by the beneficiary, his relatives, friends or other resources.

AGENCY OF HUMAN SERVICES

FEE SCHEDULE FOR DENTAL SERVICES

The fees established by the Agency of Human Services and approved by federal authority for the services itemized are to be accepted as the *maximum* which the State of Vermont will honor.

Service	*Fee*
Diagnostic and emergency:	
1. Examination, charting and completion of reporting form	$6.00
2. Radiographs:	
a. Full mouth (14 periapical with two bite-wings or one panagraph with two bite-wings)	16.00
b. First intra-oral bite-wing or periapical film	3.00
c. Second bite-wing or periapical film	2.00
d. Third or subsequent periapical film	1.00
3. Study Models (where indicated)	8.00
4. Emergency—No prior authorization required—palliative treatment of dental pain which must be described. Includes excavations of deep carious lesions in teeth advocated for root canal therapy, openings into root canals for sedation or drainage prior to authorization	20.00
Preventive:	
1. Prophylaxis (limited to once semi-annually)	5.00
a. With P.O.H. instruction	10.00
2. Topical fluoride treatment (children under 21)	5.00
Periodontics (By report):	
Restorative—(includes bases and pulp capping)—Cases with small vital exposures, where the prognosis for pulp capping is favorable,	

Service	*Fee*
Periodontics (By report)—Continued	
should be pulp capped and permanently filled at the same sitting. Pulp capping is, therefore, incident and integral to the restoration and is not reimbursable as a separate procedure.	
1. Amalgam:	
a. 1 surface	$7.00
b. 2 surfaces	12.00
c. 3 or more surfaces	18.00
d. Reinforcement pins—1st pin	4.00
(1) Each additional pin	2.00
2. Silicate—anterior permanent teeth only:	
a. 1 surface	9.00
b. Maximum on same tooth—not to exceed	18.00
3. Composite resin—permanent teeth only:	
a. 1 surface	9.00
b. Maximum on same tooth—not to exceed	18.00
c. Restorations with pins (anterior teeth)—each pin (maximum 3)	4.00
d. Restoration of fractured tooth with pins	30.00
4. Disking—anterior deciduous teeth	4.00
5. Crowns:	
a. Acrylic jacket	85.00
b. Porcelain jacket	100.00
c. Acrylic veneer	120.00
d. Polycarbonate	30.00
e. Stainless steel	20.00
f. Gold veneer, all cast gold, ¾ gold	120.00
g. Recementing crown or inlay	8.00
h. Cast core	45.00
6. Bridgework:	
a. Bridgework per unit	100.00
b. Replacing broken facing	15.00
c. Recementing bridge	12.00
Endodontics:	
1. Pulpotomy (post-operative films required)	15.00
2. Root canal (permanent teeth only):	
a. Single root	70.00
b. Double root	90.00
c. Triple root	125.00
3. Apicoectomy:	
a. Separate procedure	30.00
b. With root canal filling	80.00
Prosthodontics:	
1. Full dentures:	
a. Single full upper or lower denture	150.00
b. Immediate denture with chairside reline	180.00
2. Partial dentures:	
a. Upper acrylic-based, with 2 clasps with rests	135.00
b. Upper cast	160.00
c. Lower acrylic-based, with 2 clasps with rests, with lingual bar	160.00
3. Repairs:	
a. Denture—no teeth	15.00
b. Denture—one tooth replacement	10.00
c. Replacing clasp	25.00
d. Relining denture (chairside)	30.00
e. Rebasing full or partial (processed)	50.00
Oral surgery:	
1. Extraction (includes local anesthesia and removal of sutures):	
a. Uncomplicated—permanent tooth	8.00
b. Uncomplicated—deciduous tooth	5.00
c. Surgical removal of erupted tooth	12.00
d. Soft tissue impaction	20.00
e. Partial bony impaction	30.00
f. Complete bony impaction	45.00
g. Alveolectomy—per jaw	20.00

Service	*Fee*
Oral surgery—Continued	
2. General anesthesia:	
a. in office	$10.00
b. in hospital	25.00
Orthodontics:	
1. Consultation and Diagnosis—includes models, photographs, radiographs and written report	50.00
2. Treatment (By report).	
Other services: 1. Consultation by specialist	15.00

THE CHILDREN'S COMPREHENSIVE DENTAL HEALTH PROGRAM, H321—1973

I. GENERAL STATEMENT

A. Introduction

With its involvement constantly increasing, the State of Vermont is deeply concerned with the financing, the quality, the availability and the utilization of dental health services. Those services which have the greatest potential for long-term benefits will be emphasized. During the 1973 Legislative Session Bill H321, the Children's Comprehensive Dental Health Program, became law. Under 33 V.S.A. § 3301 et. seq. all school age children (age five through grade six) from families with household incomes, after deduction of $750 for each dependent child, that are below $8,750 per year will be eligible for partial financial support for the cost of authorized dental services. (Example: a family with two minor dependents (under 18 years of age) and a gross household income of $10,000 would be eligible; gross household income ($10,000) minus minor dependents ($750 × 2=$1,500) equals adjusted gross income ($8,500).) This program will become effective on January 1, 1974.

"The Secretary of the Agency of Human Services (or his designee) is authorized to formulate and administer a comprehensive dental program under which all eligible children shall be provided with an opportunity to receive dental health education, early and periodic screening and diagnosis and treatment".

II. ADMINISTRATION

A. General Policy

In administering the Comprehensive Children's Dental Health Program, the Agency of Human Services will seek the advice and assistance of the dental profession through its recognized organizations, especially in the development and maintenance of standards of care. The point of contact between the practicing dentists and the Program will be the dental division of the State Health Department, which will respond to inquiries regarding eligibility and process requests for prior approval and submitted bills.

The dental director and the dental consultant of the Agency of Human Services will have access to information regarding services provided by the program and responsibility for reviewing those services in relation to their appropriateness. Pre-operative and post-operative review are an integral part of this process.

Any questions, comments or confusion regarding the program should be directed to the dental division office.

B. Patient Eligibility

Participating dentists should establish to their satisfaction that patients presenting themselves for treatment are in fact eligible for financial support at the time of examination as well as when the services are performed. Each eligible family will be provided a card to present to the dentist. Eligibility cards will be valid for one year from the date of issuance. The treating dentist is responsible for confirming the continuing eligibility of the patient prior to submitting a treatment plan. Payment will be made for all services approved in a treatment plan even though eligibility terminates before treatment under the approved plan is completed.

C. Provider Eligibility

1. *Practitioners.*—Any licensed dentist in the State of Vermont or in the jurisdiction where the patient seeks care and who complies with the Conditions of Participation and the Fee Schedule of this program is eligible to provide dental care.

2. *Specialist (Orthodontists).*—Orthodontic services for treatment of severely Handicapping malocclusion may only be provided by an especially qualified dentist. The practitioner must be qualified by reason of American Dental Association accredited post-graduate training in Orthodontics. All orthodontic cases will receive individual consideration.

3. *Clinics.*—All dental clinics agreeing to the Conditions of Participation and the Fee Schedule will be eligible for reimbursement in the same manner as private practitioners.

III. STANDARDS OF SERVICE

A. General Policy

The dental services provided under the Comprehensive Children's Dental Health Program shall consist of those basic services essential for the prevention and control of dental diseases, education of the patient and the maintenance of the oral and general health of the patient.

It is not the intent of the program to provide elective or minor cosmetic services inconsistent with the maintenance of oral health.

The fees established by the Agency of Human Services and approved by federal authority for the services itemized are to be accepted by the dentist as the maximum allowable charge for each service rendered. Under no circumstances can an additional charge be made to the patient for treatment costs exceeding that approved by the Agency.

Periodic recall of patients should be attempted once treatment has been completed. All services provided under this program are subject to review for quality and appropriateness.

IV. AUTHORIZATION PROCEDURES

Treatment exceeding $20 must receive prior authorization and shall not begin until such authorization has been received by the participating dentist. The total treatment plan must be detailed.

The dental provider initiates the process of prior authorization by submitting a full clinical description of the patient's dental health problem on the approved form, with radiographs to the Director of the dental health division of the State Health Department. The Director may approve, disapprove or defer a case pending receipt of further information and consultation. The decision will be returned to the dentist in writing.

A. Diagnosis

1. *Examination.*—This service includes the preparation of charts, treatment plan and reporting forms. It is applicable on the initial visit only and annually thereafter. It is not applicable to a single emergency visit or upon subsequent referral to a specialist.

2. *Emergency Dental Care.*—This procedure is intended to meet the limited demands that may arise from the exigencies of dental practice. Services must be itemized when billing for this service.

3. *Radiographs.*—Limitations are intended to limit the radiation exposure of patients, especially children, to the minimum necessary to achieve satisfactory diagnosis for fundamental dental services. Radiographs must be of good diagnostic quality, dated and mounted. Requested retakes will be provided at no charge. Post-operative radiographs may be required when requesting payment for pulpotomies and are required for root canal procedures.

4. *Study Models.*—These are indicated only when requested by the reviewing authority or as part of full orthodontic referral of cases for approval. They must be of good diagnostic quality and properly related in occlusion.

B. Preventive Services

1. *Prophylaxis.*—This service should include personal oral hygiene instruction, a scaling of the teeth, removal of acquired stains, and polishing of the teeth. The service may not be rendered more frequently than semi-annually except upon prior approval.

2. *Topical Fluoride Treatment.*—This item refers to a single treatment using a currently accepted professional technique. This service may be performed semi-annually.

3. *Space Maintainers.*—Space maintainers will be considered by report.

C. Restorative Procedures

1. *Amalgam Restorations.*—Cavity preparation must have an outline not only adequate for retention but extended to conform with the principles of prevention. Only one restoration per surface will be honored. No fee will be paid for permanent restorations attempted on primary teeth where early exfoliation (more than two-thirds of the root structure resorbed) is expected.

The item "3 or more surfaces" is construed to mean that no combination of services on a single tooth in a current period of treatment should be billed in excess of the fee allowed for this procedure.

2. *Silicate Restorations.*—This procedure is allowed on anterior permanent teeth only. No treatment on a single tooth in a current period of treatment should be billed in excess of the allowable fee maximum listed in the fee schedule. A class III restoration for a mesial or a distal lesion is a one surface filling even though a labial or lingual approach is used.

3. *Composite Resin Restorations.*—This type of restoration is allowable as stated under "Silicate Restorations". The use of pins on anterior teeth where involvement of incisal angle limits retentive potential of cavity preparation is permitted.

4. *Discing.*—This is the only procedure allowed on anterior deciduous teeth.

5. *Crowns.*—Crowns may be approved if the health of the remaining dentition warrants and then only when conventional restoration cannot be placed due to extensive loss of tooth structure or when a composite restoration with pins will not be adequate.

Cast core is applicable only upon evidence of completion of successful endodontic procedures.

6. *Bridgework.*—This service will be authorized when need is of unique cause and where it is evident that oral health is excellent.

D. Endodontics

1. *Pulp Capping.*—Cases with small vital exposures, where the prognosis for pulp capping is favorable, should be pulp capped and permanently filled at the same sitting. Pulp capping is, therefore, incident and integral to the restoration and is not reimbursable as a separate procedure.

2. *Pulpotomy.*—This service is defined as the complete removal of the coronal portion of the pulp. It is limited to instances where the prognosis is favorable and should not be applied to primary teeth where roots show signs of advanced resorption (more than two-thirds of the root structure resorbed). Post-operative radiographs may be required when requesting payment for pulpotomies.

3. *Root Canal Therapy.*—All root canal treatment must have prior approval. This service is limited to the permanent dentition. Request for approval must be justified by submitting a total diagnosis and treatment plan supported by sufficient radiographs of good diagnostic quality, dated and suitably mounted to judge the general dental health status. Post-operative radiographs must be submitted. If a subsequent crown will be needed, it should be so stated on the request for approval of root canal treatment.

4. *Apicoectomy.*—This service must be requested with supportive evidence as above. It will also include the removal of periapical pathological tissue. As a separate procedure, should not be requested until sufficient time has elapsed following root canal treatment to permit submission of valid evidence of need for this service.

E. Prosthondontics

1. *Full Dentures.*—If a patient still has natural teeth, radiographs are required to be submitted with the treatment plan. If immediate prosthesis is part of the treatment plan, so state. Immediate dentures are not considered temporary dentures, and one chair-side tissue treatment reline is included in the fee.

If the patient is wearing dentures and the dentist is requesting new dentures, the age and condition of the present denture(s) and the reason why they cannot be rebased or reproduced must be stated.

2. *Partial Dentures.*—The participating dentist must submit a current full-mouth series of radiographs of good diagnostic quality, dated and suitably mounted. All carious teeth must be functionally restored and supporting tissues in good health. The design of the denture must be outlined, including the teeth to be replaced and the teeth to be clasped.

Design of the prothesis and material used should be as simple as possible, consistent with basic principles of prosthodontics.

3. *Denture Repairs.*—All routine denture repairs may be performed as patient needs dictate.

F. Oral Surgery and Exodontia

These services are applicable to both primary and permanent dentitions. Suture removal and local anesthesia are included in the authorized fee.

G. Orthodontics

Only those patients with a handicapping malocclusion will be eligible for treatment under this program. Handicapping malocclusion will be determined in the following manner:

1. Referral of a patient to an orthodontist will be made by a dental practitioner.
2. An examination will be made by an approved orthodontist who will complete and submit a modified Champus evaluation form to the dental division for eligibility determination.
3. If the patient is eligible for treatment, diagnostic records and a detailed treatment plan must be submitted for prior authorization by the orthodontic consultant.

Payment for orthodontic care will be based on the orthodontist's requested fee, or the maximum allowable fee under the program. The participating orthodontist will bill for his services on a semi-annual basis, utilizing the approved form. Regulation and procedures will be reviewed annually.

H. Periodontics and other recognized specialty treatment require special authorization

V. PAYMENT FOR SERVICES

Payment will be made only for services rendered by or under the direct supervision of persons holding a D.D.S. degree or a D.M.D. degree. Bills submitted by dentists for services rendered must represent treatment actually completed. Orthodontists may bill semi-annually. Bills for dental services must be submitted on the approved form and should be typewritten or printed legibly. All spaces must be filled out. Services should be accurately and specifically defined by use of the indicated system of tooth number and surface lettering.

Since State funds are involved, there are definite limitations regarding their use. Occasionally, a reasonable deviation from the established fee schedule will be allowed in cases of unusual difficulty. Additional detailed information will be required to justify the deviation.

VI. PROGRAM EVALUATION

The Agency of Human Services will continuously monitor the services provided by this program and special efforts will be made to assure that the program is meeting the needs it was intended to serve and to assess its impact upon dental health generally.

The process of data collection and storage is essential to continual program modifications. The constant input of data into the system via the standard billing forms, supplemented by special studies, will allow evaluation of the utilization and the quality of the dental service being provided. This same information will aid in program management and cost effectiveness evaluations.

STATEMENT OF PETER COBB, VERMONT PUBLIC INTEREST RESEARCH GROUP, INC., MONTPELIER, VT.

The basic premise of any health care program should be that every person has the right to good health care. The private sector and the government will have to cooperate if this is to become a reality. VPIRG recommends that the federal government adopt a health care cost-sharing system that would divide the burden of health costs between the private and public sectors. The Vermont Public Interest Research Group has studied the problems of delivering good health care to the people of Vermont. We have reached four basic conclusions about the health care system in Vermont:

1. There is a clear relationship between income and good health. *For this reason financial barriers to good health care must be removed through a combination of state and private funding.*
2. Medical resources are distributed in a manner that does not always correspond to need. Lower income groups and rural people have less access to medical

resources than do more affluent people. *Thus, ready and easy access to health care can best be achieved through cooperation among existing institutions within each state.*

3. After a century of steady improvement, the total death rate in this country ceased to improve during the 1960's. Dramatic achievements in medical technology are unlikely to provide a "cure" for the nation's ills. Probably the only long term solution to unnecessary disease and death is good preventive medical care. Preventive care can only be learned through education. *For this reason, motivational programs such as health education for preventive medical care should be set up.*

4. Health care costs have risen in Vermont over 300% since 1960. *Therefore, health programs should be closely monitored for cost and quality controls.*

VERMONT AND "TOOTH FAIRY PROGRAM"

Financing health care and providing good service to the more rural areas is a major problem in Vermont. One program that has successfully provided needed medical service in the state is the Comprehensive Dental Health Program. The program was signed into law in 1973. Under the program many working poor and lower-middle income families are eligible for either 50% or 75% state assistance for their children's dental care. Families with adjusted gross incomes between $5,750 and $8,750 (a $750 deduction is allowed for each child) are eligible for state aid under the program.

Families who are eligible for the program are notified by the Tax Department. Depending on their eligibility level, the parents pay the doctor a certain percentage of the total bill, and the doctor or clinic then submits a voucher to the state for the remaining portion.

ACCOMPLISHMENTS OF THE PROGRAM

In the two years since the program was initiated, the number of decay-free children in the state has risen from 12,000 in 1972 to 20,000 in 1974. The unmet dental need dropped from 60% for children with untreated dental need to 40%.

The program also establishes incentives for regular, periodic check-ups. It is a lot easier to fill small cavities every year than to do extensive restoration work resulting from years of neglect.

TOWARD A FEDERAL COST-SHARING PROGRAM

The federal government should set up a health care funding network modeled after Vermont's "Tooth Fairy Program". The families who are eligible and wish to participate for federal cost-sharing could be notified by the federal Internal Revenue Service.

The cost-sharing burden would resemble a step ladder of decreasing federal contributions. As the family moves up the economic ladder, the federal government's share would gradually decrease. This system prevents a family from not helping themselves since increases in one's income would greatly outweigh the loss of federal assistance.

The advantage of cost-sharing is that it is related to income and the number of dependents. Those who can afford more pay more, and those who can afford less pay less. Another advantage is that while citizens eligible for already existing federal assistance through Medicaid receive excellent care, the average stay on welfare is only eighteen months. If a family is faced with losing all federal aid if they accept a job, they may be less likely to abandon welfare.

Finally, all government programs with very limited eligibility standards require expensive outreach systems since those who are in the most dire need are often most likely to be uninformed about social services. The IRS could process those eligible through the annual federal income tax forms. Families eligible for Medicaid would be notified that they are eligible for 100% assistance, as they are now, while those immediately above welfare would be notified that they are eligible for a certain percentage of cost-sharing with the federal government. Handling all the requests through the IRS would eliminate the addition of a new cumbersome bureaucracy since they already process everyone's tax forms.

The federal government must be careful not to provide a cost-sharing system that can be taken advantage of by the medical providers. Recent literature concerning the federal Medicaid program is filled with horror stories of doctors who make hundreds of thousands of dollars by taking advantage of federal money. A

cost and quality control division should be established as a companion to the cost-sharing system. The division would aggressively review reimbursement to the doctors, and deny money when they feel that the services were unneeded or too costly.

We believe that a program such as Vermont's "Tooth Fairy Program" can help eliminate the inequities among varying income groups and make health care available at a reasonable cost to everyone.

STATEMENT OF DYMITRY POMAR, D.V.M., DIRECTOR, STATE PUBLIC HEALTH LABORATORY, BURLINGTON, VT.

1. OUTLINE OF SYSTEM

The Vermont State Public Health Laboratory as a Division of the Department of Health, is located at 115 Colchester Avenue, Burlington, Vermont. It consists, organizationally, of six sections: Administration, Chemistry, Central Services, Diagnostic Bacteriology, Reference Microbiology and Virology. The staff of 26 represents 19 professionals and technical, 4 clerical and 3 supportive service employees.

The overall activities can be categorized in the following public health preventive programs:

A. General Communicable Disease

To isolate and identify the agents of bacterial, viral, fungal and parasitic disease and to find serologic evidence of current or past infection.

B. Tuberculosis Program

To provide microscopic, cultural and drug susceptibility testing.

C. Venereal Disease Program

To maintain diagnostic and screening services for syphilis and gonorrhea.

D. Maternal and Child Health

To detect and absence of rubella antibodies and thus, prevent rubella syndrome of newborns. To screen all premarital and prenatal specimens for syphilis in accordance with the state law.

E. Chronic Illness Program

To provide chemical blood screening services in order to discover disease in early stages (diabetes, nephritis, gout).

F. Heart Disease Prevention

To eliminate or minimize the number of rheumatic fever cases by identification of beta hemolytic streptococcus in throat infections. To determine levels of cholesterol and blood in order to alert people of the consequences.

G. Environmental Health

To monitor public and individual household water supplies and, thus, control their potability. To control and prevent water-borne epidemics and sporadic infections by bacteriological testing.

H. Dental Health

To prevent dental decay by continuous monitoring of fluoride concentration in drinking public water supplies.

I. Medical-Legal

To comply with the state laws and provide the Chief Medical Examiner and state Department of Public Safety with toxicological and blood alcohol determinations.

J. Food and Drug Program

To survey the quality of food products for consumer's protection and to fulfill regulatory requirements listed in the state laws.

2. AREA AND NUMBER OF PATIENTS SERVED

Services of the State Laboratory are available to all Vermonters throughout the entire state.

The number of people served in the Environmental Health Program (bacterio-

logical and chemical analyses of drinking waters, public and individual) approaches the total population of the state.

The number of patients involved in medical-type laboratory examinations, primarily for disease prevention and/or identification, exceeds 100,000.

3. SCOPE OF CARE

The following activities took place in fiscal year 1975:

A. General Communicable Disease Program

28,051 specimens were processed for bacteria, viral and parasitic disease identification either by isolation or serological testing resulting in 57,948 examinations.

B. Tuberculosis Program

2,276 specimens required, 4,434 examinations and resulted in 123 positive cultures.

C. Venereal Disease Program

While syphilis testing remains steady, at about 37,000 per year, gonorrhea cultures increased from 12,000 in previous year to 16,515 in F.Y. 1975.

D. Maternal and Child Health Program

Also on the increase from 6,000 to 9,000 on rubella HAI testing. No change in the numbers of premarital and prenatal syphilis serology.

E. Chronic Illness Program

Although a 25% increase has been noted in comparison with previous year, the months of May and June of 1975 showed a sharp decrease in view of the Health Department decision to eliminate the entire screening program because of a shortage of funds.

F. Heart Disease Prevention Program

While the number of throat cultures performed at the State Laboratory remains steady, the program of the Health Department sponsored culturing at the physician's office showed 100% increase and resulted in 44,620 cultures performed in addition to 24,003 cultures done at the State Laboratory.

G. Environmental Health Program

21,437 tests performed at the bacteriological water laboratory and 20,940 tests at the chemical water laboratory.

H. Dental Health Program

The surveillance of fluoride content in drinking waters resulted in 4,016 analyses.

I. Medical-Legal Program

While toxicological analyses declined, a new program of breath alcohol analyses was assumed as of July 1, 1974, in addition to blood alcohol determinations. This has resulted in 2,282 breath alcohol analyses, 812 blood alcohol and 291 other toxicological examinations.

J. Food and Drug Program

Inactive due to lack of funds.

4. DATA OF COST EFFECTIVENESS

This laboratory performs a variety of laboratory tests with the goal to develop and maintain maximal laboratory quality and quantity testing capability in order to fill public health needs of Vermonters.

While the average cost per laboratory analysis at the laboratories which charge for services is about $5 per examination, the State Laboratory expenditures per test approximate $1.75.

Certain types of analyses such as water chemistry, viral serology, special bacteriological testing may run as much as 10 or 20 times more than the cost of the average test. Yet they are necessary and this laboratory is the sole lab. in the entire state where such examinations are performed.

Consequently, $383,479, the entire laboratory budget for F.Y. 75 allowed the state to obtain services valued currently at over one million dollars if performed at other laboratories.

The pro-rated figures for each program are as follows:

Program	Cost	Percent
Communicable disease	$107,520	28.0
Tuberculosis	23,040	6.0
Venereal disease	55,760	14.7
Maternal and child health	34,944	9.1
Heart disease program	32,640	8.5
Environmental health	61,440	16.0
Dental	5,760	1.5
Medicolegal	35,328	9.2

5. SOURCES OF CURRENT FUNDING

Fiscal Year 1975

State appropriation	$237,779
Federal (314d)	137,000
VD project	8,700
Total	383,479

NOTE.—The F.Y. 76 appropriations are totaling only $374,000 in spite of overall increases in reagents, materials and supplies.

6. THE ABILITY TO ATTRACT AND RETAIN HEALTH PROVIDERS

Primary health providers for the State Public Health Laboratory are practicing physicians. Depending on the public health needs of the patients examined, most of the practicing physicians collect appropriate specimens such as blood, stool, urine, sputum, spinal fluid, exudates, etc. and forward to the State Laboratory for examination.

There seems to be no problem in attracting and retaining this group of health providers. The number of specimens submitted has grown in the last ten years from 50,000 to almost 150,000.

Obviously, the laboratory has an obligation to provide information about its activities, to furnish specimen collection outfits and examination request forms, to process the specimens as soon as possible and to render reliable results immediately after completion of testing.

7. EFFORTS TO COORDINATE WITH OTHER HEALTH PROVIDERS

The "other health providers" in the field of laboratory examinations are hospital, as well as independent and physician's office laboratories.

Generally speaking, all laboratories supplement each other. While the Public Health Laboratory is involved in the preventive aspects, the hospital and physician's laboratories are engrossed in clinical and medical treatment aspects.

Microbiology is the only common ground in which the State Public Health Laboratory serves as a reference and training center for other laboratories.

8. QUALITY CONTROL

The State Public Health Laboratory is engaged in continuous laboratory improvement program of the U.S. Public Health Service, Center for Disease Control, Atlanta, Georgia. This program consists of periodic inspections and reviews of each laboratory section activity along with continuous proficiency testing in each specialty. The program is supplemented by training of laboratory personnel in the form of courses, seminars, workshops and lectures.

The quality control records from U.S. Public Health Service on proficiency testing indicate that this laboratory meets U.S. Public Health Service standards, continuously.

In addition to our own laboratory improvement program, the Vermont State Public Health Laboratory serves as a reference center for other laboratories and provides a proficiency program for hospital or independent laboratories in syphilis testing for approval of premarital and prenatal serology, as the state statutes require.

9. ADDITIONAL INFORMATION

The State Public Health Laboratory as well as the Health Department as such, has no mechanism to evaluate directly the impact of laboratory activity on the health status of the state population.

However, certain trends in demands of laboratory services may be indicative of public health needs.

Rapid growth in bacteriological and chemical examination of public and individual drinking water supplies, undoubtedly, will continue in view of awareness of the potential chemical and organic contaminants.

Testing of throat specimens for the presence of streptococci has two phases in Vermont. The number of specimens received at the laboratory has stabilized at about 25,000 while the program of physician's and school nurses' office culturing is still on the increase. This activity was introduced by the State Laboratory in order to minimize the cost of testing. It consists of training in culturing technic and supplying the physicians and nurses with basic materials, for bacteriological cultures. It has reached the level of 47,500 in F.Y. 75.

The Food and Drug Program is practically non-existent. All attempts during the last twenty years to obtain funds has never succeeded.

STATEMENT OF RUTH LAUBACH, LEGISLATIVE CHAIRMAN, VERMONT ASSOCIATION FOR MENTAL HEALTH, INC., MONTPELIER, VT.

The Vermont Association for Mental Health is pleased to learn of the February hearings being held in Vermont on the issue of rural health care and, as suggested in your winter newsletter, submits the following written testimony.

The VAMH wishes to take the opportunity afforded by the February hearings of the Rural Development Sub-Committee of the Agriculture Committee to re-emphasize its philosophy that every individual is entitled to receive those health and mental health services that he needs from time to time to enable him to lead a productive, satisfying life.

Services should be available if at all possible in his own community at convenient hours to avoid disruption of employment and family life.

Outpatient health and mental health services should be provided and used in preference to hospitalization whenever possible. Vermont is fortunate in having developed a viable system of mental health clinics serving all sections of the state and these should be expanded to include all essential services.

Alcoholism and drug abuse are illnesses that should be treated within the framework of community mental health clinics.

Attention should be paid to preventive services and these should receive adequate state and federal funding. Treatment for both mental and physical illnesses should be covered by third party payments.

An effective record keeping system is essential to good health care. A single system, probably employing the problem-oriented approach, should be adopted.

Peer review and evaluation should be emphasized in the delivery of health care.

The rural community suffers most of the same mental and physical illnesses that afflict urban areas. Isolation and loneliness can and do aggravate health problems. Inflated gasoline costs tend to increase isolation and funding to take services to outlying areas must be made available.

We appreciate your keeping us informed of Washington activities and want to thank you for your ongoing interest in mental health. We should be pleased to testify at the hearings, in addition to this written testimony, and shall look forward to hearing from you about dates and times.

STATEMENT OF DR. ROBERT J. HUNZIKER, M.D., UNIVERSITY OF VERMONT, COLLEGE OF MEDICINE, DEPARTMENT OF RADIOLOGY, BURLINGTON, VT.

As a hospital based specialist, I have no axe to grind concerning rural health care. I am closely associated with the young men and women who spend a number of years at the Medical Center Hospital during their training in various specialties and/or their four years of medical school.

These young people are not interested in locating in a small town in a rural state to do solo practice. They have become accustomed to the advantages of the larger towns and cities with their theaters, shopping centers, recreational facilities, etc. They are hospital oriented in their training and do not feel they can practice good medicine far from a hospital.

For those reasons, I hope your committee will direct its efforts toward the concept of regional medical care with small groups of physicians practicing in the

larger towns with good roads and adequate ambulance service from the peripheral areas. From these small clinics, patients should then have easy access to the community hospital or the medical center, possibly using helicopters for those in need of rapid transportation.

The idea that the federal government can make solo practice in a small town attractive is not realistic. The concept of assigning physicians to practice in a small town is counter to our concepts of free enterprise and will result in a fragmented type of practice.

STATEMENT OF DR. JEROME W. YATES, M.D., ASSOCIATE PROFESSOR OF MEDICINE AND PLANNING DIRECTOR, VERMONT REGIONAL CANCER CENTER, UNIVERSITY OF VERMONT, BURLINGTON, VT.

With the advent of increased physician specialization, the development of technical equipment utilized in specialized health care delivery and increased availability of automobile transportation, there has been a gradual concentration of medical resources in metropolitan areas. In cities of less than 2,500 people there has been a gradual attrition of physicians both as a result of their loss through retirement and death and the need most recent medical graduates feel for sophisticated support techniques not available in rural clinics. This has lead to a relative inaccessibility of medical care for those residing in sparseley populated areas. Although the distances in Vermont are not necessarily great, the terrain and climate often make travel uncomfortable and sometimes hazardous for those with significant illnesses. Because the probability of reversing the physician flow to metropolitan areas is minimal, an alternative solution has been sought to improve follow-up care of patients with cancer.

We are starting a program (supported by Grant #CA 17868 awarded by the National Cancer Institute) which we hope will improve the treatment, rehabilitation, and continuing care of patients with cancer. We have developed a coordinated effort in the areas of social services, occupational therapy, physical therapy, nutrition, the clergy, nursing and medicine. We are utilizing a multi-disciplinary team to train nurse-pracitioners who will provide patient care, hopefully improving the quality of survival of those with cancer. These nurse-practitioners will serve to aid in the dissemination of information, infusing it into public and professional education programs and assessing its acceptance.

Our attempts to improve the quality of care of cancer patients has resulted from their general exclusion in past considerations for most medical delivery systems. The care of most cancer patients in Vermont and America has been and continues to be crisis oriented. Cancer is often considered synonymous with hopelessness tending to subvert positive approaches to non-curative treatments for complications of the disease. Major emphasis continues to be placed on the diagnosis and treatment with little attention to improving the quality of survival. Existing rehabilitation programs are primarily reserved for those patients who have been cured or who have long term stable disease, with intentional exclusion of a large group of patients receiving only palliative therapy. Because cancer prevention, early diagnosis and curative treatment remain relatively elusive among the most commonly encountered neoplastic diseases, and only a few tumors are truly curable, a large cohort of patients receive only palliative therapy. The development of new procedures involving an integration of efforts aimed at physical, psycho-social, vocational and educational needs should significantly improve the quality of survival of the chronically ill cancer patient. Although our emphasis has been on cancer patients, it is obvious that utilization of these techniques and the development of a workable model which proves effective in rural areas, could easily be applied to most other types of chronic medical care. The effectiveness of increased nursing responsibility has been appreciated for many years e.g. in the operating room through the use of nurse anesthetists and for the past decade in pediatrics. It has only been in the past few years that it has become apparent that nurses could serve as a useful extension in health care delivery systems and effectively provide care formerly only available from physicians. The extension of these multi-disciplinary services through itinerant nursing team members should have an impact on the supportive care available to patients in rural areas. This pilot study should serve as a useful model in other rural areas of the country.

With improvements in cancer chemotherapy and the apparent benefits from surgical adjuvant chemotherapy programs (e.g. breast carcinoma) there has

become an increased demand on the physician's time for the administration of drugs. As this increases, the utilization of oncology nurses for cancer patient follow-up and the administration of chemotherapy will become imperative. We presently are preparing a proposal for submission to the National Cancer Institute to develop the role of a full time nurse oncologist in community hospitals around the State of Vermont. This nurse would function much the same as a "county agent" from the Department of Agriculture to be available on an advisory basis. Recognizing the reticence of physicians in seeking advice from non M.D. personnel, we anticipate early acceptance may be slow. By allowing the nurse to be available for administering chemotherapy to patients in the hospital, initially at no cost to the patient or physician, we believe fertile ground for later dialogue will be prepared. This nurse could also serve to follow the hospitalized cancer patients ensuring reliability of tumor registry data and also ensure awareness through both professional and patient education of local cancer care resources. With familiarity and weekly class discussions held with cancer care specialists and other nurses from around the State, these nurses should develop expertise and ensure local uniformity in patient workups and management. Just as hospitals are employing nurses for introduction of intravenous therapy, likewise in the future, one may see hospitals supporting full time oncology nurses. This is another model worthy of consideration for development with the ultimate aim of improving health care delivery to patients in non-metropolitan hospitals.

STATEMENT OF VERONICA S. WILLIAMS, PHNS, RUTLAND, VT.

I would like to express my appreciation for the prompt and courteous replies I have received from my communications to you; for your continued interest in the health of the nation's citizens.

Vermont may well be proud of it's history of health care, services, research, etc. We are also an excellent area to demonstrate innovative health programs because of our geographic and demographic size and distribution. I believe our Health Department has an excellent record for services available to the total state. However, over the past several years we have become increasingly restricted in services because of budget problems which have resulted in dropping programs, riffing prsonnel, limiting travel and supplies, and generally hampering the delivery of service.

In spite of the above deterrents the Public Health Nursing Division of the Vermont Department of Health has developed Well Child Conferences throughout the state which provide for preventive health care of the child from birth to school, as recommended by the American Academy of Pediatrics. The Supplemental Feeding Program (WIC) and Medicaid (EPSDT) Programs have been scrutinized nationally. In spite of lack of compulsive immunization our children are well immunized according to national statistics.

We desperately need more monies in order to expand our present programs and to develop others to more adequately meet the needs of the total population. In the Rutland County area we are almost entirely concerned with the maternal and preschool population. In addition to the Well Child Conferences we are very involved in the care of the newborn and post partum care of the mother through a hospital referral system, health education through expectant parents classes, early pregnancy consultation, parenting classes and individualized counseling in home, clinic, or office.

We do not have staff or time to address other age groups and their problems. I urge your committee to consider the proposals for rural health projects that may be presented to you. I am very proud to be a member of a team of individuals who are dedicated to bringing better health to many people and feel that you, too, are a member of this team.

STATEMENT OF DR. GEORGE BROOKS, M.D., VERMONT STATE HOSPITAL, WATERBURY, VT.

RURAL COMMUNITY SCREENING PROGRAM

The RCSP (Rural Community Screening Program) was started in July of 1974 with funds made available through a National Institute of Mental Health Grant. Hired on the Grant are six mental health workers assigned to three community

mental health clinics and an admissions coordinator who works at the Vermont State Hospital. The goal of the program is to reduce inappropriate admissions to the hospital by providing acceptable alternatives in the community. The six mental health workers who provide screening in the community are also available to the admissions office at Vermont State Hospital on a 24-hour, seven day a week basis, thus assuring that every potential admission receives screening services.

The aggressiveness with which alternatives to hospitalization are sought is regarded as the primary reason for the apparent success of the project. In several situations, for example, workers have spent over 20 hours dealing with an immediate situation. It has been extremely helpful to these workers that the directors of their respective agencies have given this project very high priority, have protected them from "dumping" within the agency by defining their task as working only with those at high risk for hospitalization and have supported early referrals from the screening team to the day treatment program or to other counselors within the agency.

Community resources which have been identified and utilized in this program include boarding homes, nursing homes, general hospitals, private psychiatric facilities, alcoholic treatment centers, drug treatment centers, day hospitals, home health agencies, police departments, ambulance services, town service officers and the Department of Social and Rehabilitative Services. Over half of the persons screened have been helped to remain in the community.

Good working relationships have been developed with persons in these community resources and they now consult with the Rural Screeners when they become aware of persons at risk for psychiatric hospitalization. There has been additional outreach to other potential referral sources including physicians, district courts, sheriffs and ministers.

The screeners work closely with both the staff at Vermont State Hospital and the staff of the Community Mental Health Centers and are able to act as consultants in terms of community resources and hospital programs. When hospitalization is appropriate, the screeners seek to assure that the process of admission is as rapid as possible.

During the first year of the program, admissions to the Vermont State Hospital from the three counties served by the project were reduced by 38%. Of the 115 persons screened and admitted to the Hospital only 42% of the admissions were considered appropriate. The remaining 58% could have been treated in a less restrictive environment given sufficient community resources. Some of these resources are difficult to provide in a rural area as suggested by the following: Of those not in need of VSH, 79% needed some kind of protective living situation; 54% had less than a 12th grade education (suggesting the need for additional educational opportunities); and 76% were receiving non-job related income (suggesting the need for Voc Rehab).

STATEMENT OF KATHERYN N. HAUGSRUD, ARLINGTON COMMUNITY PUBLIC HEALTH NURSING SERVICE, INC., ARLINGTON, VT.

PRESIDENT'S REPORT 1975

The Arlington Community Public Health Nursing Service is an organization whose membership is open to any who pay the annual dues of $1.00 per year, and is served by a board of trustees consisting of 30 members who serve terms of three years.

Each year the Arlington Nursing Service contracts with Manchester Health Services, Inc. for professional services in the fields of skilled nursing visits, Physical therapy, occupational therapy, medical social evaluation, homemaking service, and disease intervention. These services are provided for people of all ages in the communities of Arlington, Sunderland and Sandgate. Those charges which are not provided for by Medicare, Medicaid, or other health insurance are charged to, and paid for, by the Arlington Nursing Service. There were approximately 1100 people who received such professional service in 1975.

With financial assistance from the towns and school districts, the Arlington Nursing Service provides for the health needs in the two schools in Arlington and one in Sunderland. Miss Elizabeth Tynan, District Health Nurse, and Mrs. Robert Macksey, Health Aid, conduct hearing and eye examinations, health screening programs, referrals and follow-up on all examinations, and assistance with all clinics. As in previous years the Nursing Service is grateful to Dr. James O'Neil for the many hours he volunteers to conduct immunization clinics as well as physical examinations for all students participating in athletics. Mrs. Millard Vaughn, Dental Hygienist, provided oral screening and stannous fluoride treatment for students in K–10 in the Arlington schools, and in all grades in Sunderland School. Further dental care was provided by the Arlington Nursing Service in our weekly dental clinic in the office of Dr. Isley Zecher, and on occasion other area dentists. Transportation to these clinics and others is provided by either Miss Tynan or volunteers.

The monthly Well-Baby Clinic under the Co-chairmanship of Mrs. James McCabe and Mrs. Gregory Wright is staffed by Dr. Katharine Hession, Pediatrician, and Miss Tynan. Much credit must go to the many volunteers who assisted with the eleven well-baby clinics and two pre-school clinics. There are 220 children examined—175 received physical examinations and 150 received immunization.

The Arlington Nursing Service is the source of professional and volunteer help in all the health related programs in the towns covered by our service. These include screening programs by the Vermont Heart Association, American Red Cross Blood Bank, Tuberculosis Tine Testing, Diabetes, Hyptertension, and Glaucoma screening, and Disease Prevention Clinics. Each year new services are being added to meet the health needs of the communities.

This agency, with such wide range goals, is successful only because of the dedicated service of Dr. O'Neil, Miss Tynan, Mrs. Macksey, Mrs. Vaughn and the many volunteers who donate hours of valuable time. To all these we extend our sincere thanks.

STATEMENT OF ROBERT E. HEROUX, DIRECTOR, COUNCIL ON AGING FOR SOUTHEASTERN VERMONT, BRATTLEBORO, VT.

Senator Leahy, we were pleased to learn recently of your and Senator Clark's plans to conduct field hearings in Vermont on rural health care delivery.

Since August, 1975 the Council on Aging for Southeastern Vermont has been operating an Elderly Health Clinic Program in cooperation with the Brattleboro Memorial Hospital, local health care providers, local physicians and community volunteers. The program is funded by the Vermont Regional Medical Program. Enclosed with this letter is our first Progress Report outlining program objectives and clinic operations. We feel this project may be of interest to you since it is intended to serve the elderly population of the Brattleboro Memorial Hospital catchment area, a largely rural area in Southeastern Vermont.

As of the end of December, 1975, 102 elderly persons have participated in the Clinic program. We are now in the process of aggregating information collected from Social and Financial Questionnaires administered to these patients. This information, in addition to updates to the enclosed progress report, may prove interesting and informative to you and Senator Clark. We will forward this additional information as soon as it is available, certainly prior to the end of January.

As you are no doubt aware, the provision of quality medical services in rural areas, especially as regards the elderly who experience a greater number and severity of health problems, has long been a problem. The Elderly Health Clinic Program has attempted to impart this long standing problem in some way. The Rural Development Sub-Committee will do all of us a great service by documenting practical health delivery models which attempt to impart that problem.

If you have any questions, or wish additional information, about the Elderly Health Clinic Program, please contact us directly at any time.

COUNCIL ON AGING FOR SOUTHEASTERN VERMONT,
Brattleboro, Vt., February 12, 1976.

Hon. PATRICK J. LEAHY,
Burlington, Vt.

DEAR SENATOR LEAHY: Regretfully, no one from this office will be able to attend the hearing on Rural Health scheduled for 16 February. However, I would like to submit the enclosed report as an update on information sent to you about a month ago concerning the Health Care for the Elderly project here in southeastern Vermont.

The enclosed is a report on the Senior Health Clinic portion of the program, which offers physical examinations to people over 60.

Another important phase of the Health Care for the Elderly program is spot checks. During February—Heart Month—for instance, we are doing blood pressure checks and receiving an overwhelming reception in the outlying towns of the county. Glaucoma and cancer screenings are being planned for the spring. I would be happy to send you reports on this portion of the program when they are available.

Sincerely,

CHERYL WILFONG,
Project Coordinator.

Enclosure.

SENIOR HEALTH CLINICS SUMMARY STATISTICAL INFORMATION

INTRODUCTION

The Senior Health Clinic is part of the Health Care for the Elderly project being sponsored by the Council on Aging, Windham Regional Commission, and Brattleboro Memorial Hospital. The project is funded through Northern New England Regional Medical Programs.

The purposes of the Clinic are to provide physical examinations for senior citizens, to hook people into the primary care system and develop support for other geriatric services.

The Clinic itself includes an interview during which a medical case history and a social/financial questionnaire are administered; screening for height and weight, blood pressure, blood tests and urinalysis; a chest X-ray; and a physical examination by a doctor.

Cooperating and participating organizations include Vermont Public Health Nurses, Brattleboro Public Health Nurses, Deerfield Valley Health Center, Valley Health Council, Brattleboro Senior Center, Senior Wheels, and Brattleboro Memorial Hospital. Many individuals also volunteer their time and effort generously as the Clinic needs about 15 doctors, nurses and aides to staff it each month.

An integral part of the Senior Health Clinic operations is the administration of an intensive Social and Financial Questionnaire. Information collected from clinic patients is, with their permission, transmitted to their regular physican, or a physician chosen by them at the Clinic if they have none to insure up-to-date medical records. Periodically, this information is aggregated to aid in assessing the degree to which Clinic program objectives are being realized. A summary of this information collected from the initiation of the Clinic program in August 1975, through the end of December, 1975, is presented below.

PEOPLE SERVED AND THEIR TOWN OF RESIDENCE

As of the end of December, 1975, five Clinics had been held at the Brattleboro Memorial Hospital and an additional two Clinics had been conducted at the Deerfield Valley Health Center. A total of 102 elderly patients attended these Clinics.

In terms of sheer numbers, most of the patients came from Brattleboro, as might be expected, although other towns have a higher proportionate representation. Table 1. compares the number of patients from each town with the population of that town.

TABLE 1

Town in service area	Clinic patients served to date	Town population over age 65 [1]	Annual quota [2]	Percentage of quota reached
Brattleboro	52	1,537	118	44
Brookline	0	23	2	0
Dover	3	31	2	150
Dummerston	0	139	11	0
Guilford	2	130	10	20
Halifax	2	42	3	67
Jamaica	6	75	6	100
Marlboro	3	50	4	75
Newfane	1	138	10	10
Putney	8	131	10	80
Readsboro	1	78	6	17
Searsburg	1	12	1	100
Stratton	0	23	2	0
Townshend	7	120	9	78
Vernon	3	179	14	21
Wardsboro	0	46	3	0
Whitingham	8	112	9	89
Wilmington	3	138	10	30
Total	100	3,004	230	43
Hinsdale	1			
Westminster	1			
Grand total	102			

[1] Source: 1970 census.
[2] Assuming proportionate representation from each area (not a strictly adhered to guideline).

Four towns have not been represented at all in the Clinics—Brookline, Dummerston, Stratton and Wardsboro.

Dover, Searsburg and Jamaica have already reached and passed their quota for the year. Whitingham, Putney, Marlboro, Townshend, and Halifax have already attained more than 50% of their quota. It is interesting to note that persons from towns generally on the fringe of the service area have a proportionately higher use of the Clinic program. This trend, if continued throughout the rest of the program year, might serve to indicate that residents of these towns find access to existing medical services difficult and that a clinic program fills a need for access to medical services in these towns. (See figure 1.)

Brattleboro is about at the halfway point, but Guilford, Newfane, Readsboro, Vernon and Wilmington residents have not been adequately represented at clinics. Efforts are being undertaken to insure that adequate publicity of the Health Clinic is presented to residents of these towns.

VITAL STATISTICS

Thirty-nine (39) of the patients have been male and 63 female. This is proportionate to the senior male-female population breakdown of Windham County residents according to the 1970 census. (County: 40%–60% Clinic: 38%–62%)

Table 2 below compares the age breakdown of elderly Windham County residents according to the 1970 census data to the age breakdown of clinic patients.

TABLE 2

[In percent]

Age	Population over 60, Vermont, 1970	Clinic population, 1975
60 to 64	30	12
65 to 69	20	28
70 to 74	20	29
75 to 79	15	20
80 to 84	9	9
85 to 89	4	2
90 plus	2	0

As can be seen from this table, proportionately fewer 60–64 year-old residents were served than were residents from other age groups. This fact reflects a conscious attempt to reach residents over 65 years of age as a first priority. Those 65–79 have a higher proportionate representation as clinic patients than they do in the general population breakdown. It may be assumed that these people are generally still independent with a degree of mobility, while those over 85 are more restricted.

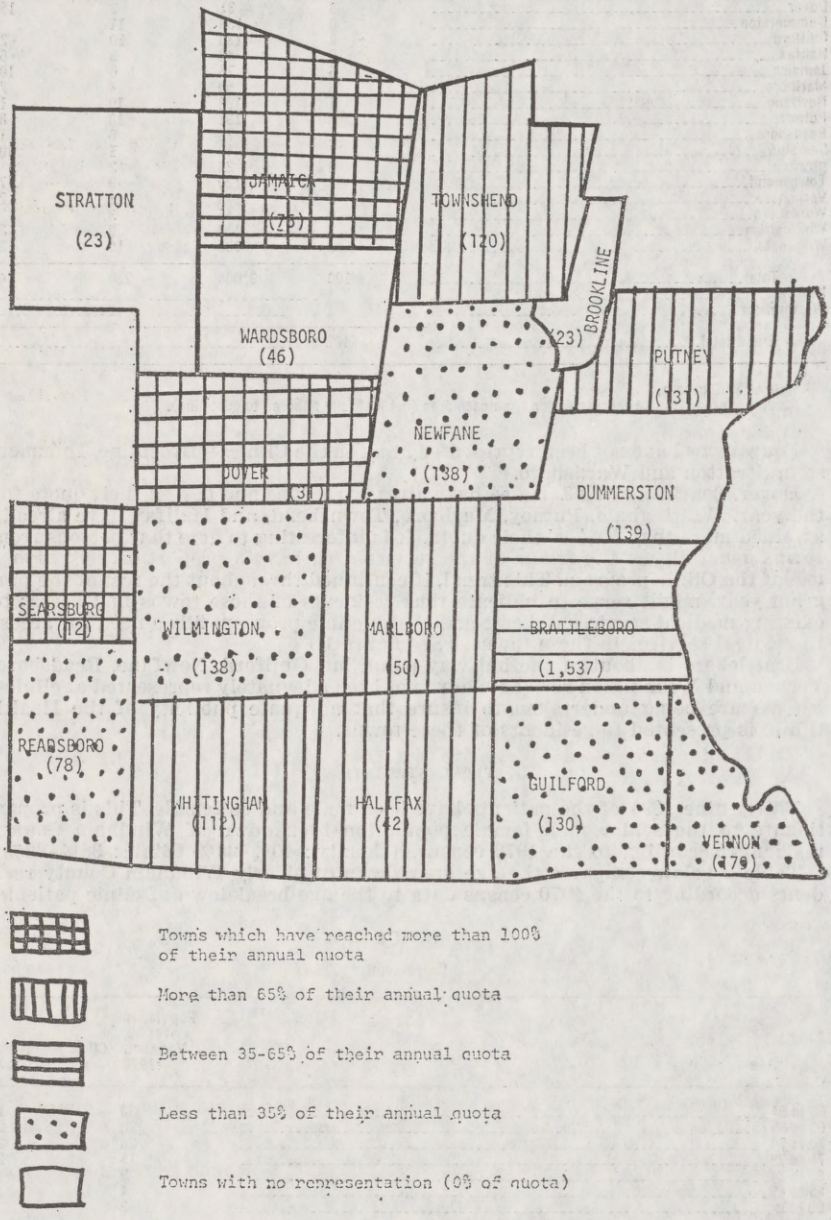


FIGURE 1.—Towns compared by proportionate representation

MARTIAL STATUS AND HOUSING

Just less than half the Clinic participants were married, while 53 of 102 were single, widowed, divorced or separated. Most seniors lived alone if they were single, or with their spouse if they were married. Only 12 people lived with other members of their families.

Most seniors—two-thirds of them—live in their own single-family dwelling. Twenty seven percent rent an apartment, and 7% live in a mobile home, either rented or owned. Only one person came from a nursing home.

SOCIAL ACTIVITY

The great majority of people—70%—have relatives living close by, 60% attended clubs or groups regularly, and 92% did their own shopping. It seems then that most people get out and around to some degree. Twenty-one percent said they would like to get out more often. Some of these people have physical limitations and are incapable of getting out even with support services such as Senior Wheels. Names of people who expressed a desire to get out more often have been forwarded to RSVP, a senior volunteer program, as potential volunteers.

GENERAL HEALTH

Most people described their appetite as good and felt that they eat a well-balanced diet. Also, most people—85%—considered themselves to be in good health and were not worried about their health. Yet, exactly half the people indicated they had a current health problem, as was later verified by physical examinations. Twenty-two percent had been in a hospital or rest home within the last two years.

What these contradictory answers might indicate is that people were nagged by some health problems, although they felt generally good, considering their age. In fact, doctors recommended follow-up on 83% of the patients in the form of tests (e.g., pap smears, gastrointestinal series) and treatment of health maintenance problems (e.g., hypertension, high cholesterol). The great number of recommended follow-ups may serve to show that people came to be tested or treated for medical problems; the problems were confirmed by a doctor; and follow-ups were made to encourage treatment of those problems with private physicians. This is, in fact, one of the major purposes of the program—to find potential medical problems and encourage treatment of those problems before they become serious.

MEDICAL CARE

Thirty percent (30%) of the people who came to the Clinic did not have a doctor. Connecting people with the primary medical care system is also a major objective of the project and it appears that this objective is being fulfilled.

TABLE 3

When patients last saw	Their own doctor	or any doctor
Less than 1 yr	27	34
Less than 1 plus yrs	22	23
Less than 2 plus yrs	16	16
Less than 3 plus yrs	5	6
More than 4 yrs	25	21

Many people—57%—have seen a doctor in the last 2 years. This is not surprising, since according to national statistics, old people had one-third more physician visits than did people under 65, with a higher proportion of visits occurring within the last 6 months. The contrapositive of this is that 43% of all people seen at the Clinic have not been to a doctor in more than 2 years in spite of the fact that persons age 65 and over are in a medically high-risk age group.

The questions, "When was the last time you had a physical?" is based on a sample of 67 persons.

Table 4

Less than 1 year	5
1 plus years	13
2 plus years	14
3 plus years	4
4–10 years	18
Can't remember and never	13

Only 26% have had a physical check-up within the past 2 years. This percentage is much less than the 57% who have seen a doctor within the past 2 years, so it must be assumed that 30% have seen a doctor for acute medical care. Much is needed to encourage the positive aspects of a yearly examination for preventative care. Forty-six percent (46%) of the patients had not had a physical examination in the past 4 years, and 19% have either never had a physical or can't remember when they last had one.

Failure to have regular physical examinations is definitely a contributing factor toward a poor preventative health care situation.

Forty-four percent (44%) of the patients felt they should see a doctor regularly, but only half of them could say why. On the other hand, 56% did not feel they should see a doctor regularly and were able to give several supporting reasons—no need (20%); felt healthy (31%). In spite of these reasons, half the people did have a specific problem and follow-up was recommended for 83%.

This contradiction between peoples' perceptions and the facts concerning their health indicate that regular health care is an unrecognized and unarticulated need and that there is a need for a preventative health education program to raise health care to a conscious level.

The reasons people came to the Clinic are as follows: 30% came for a check-up, 25% came because someone else suggested they come (e.g., a wife made an appointment for her husband, a daughter urged her mother—the hidden factor here is the willingness to come even though responsibility for being there has been shifted to someone else), 16% came for a specific medical problem, 14% came for the tests. Only 3% indicate the only reasons they came was the low costs, although it may be assumed that that was an incentive for everyone. Another 3% came specifically to get a doctor. Again, these motivations show a need for medical care while this has not been acknowledged directly by the patients.

PUBLICITY

The mass mailing done in August seems to have had a widespread effect, as 37% of the people mention it. The newspaper articles are also a major focus of publicity. Several people heard about the Clinic at Senior Centers. Fewer heard about it by phone, which is surprising, considering that 75% of the seniors in the area have been contacted by phone about the Clinic.

FINANCES

Ninety-three percent of the patients receive Social Security. The 6% who do not are not yet eligible. Only 4% received SSI (Supplemental Social Security Income), while two-thirds receive income for another source, such as pensions.

Generally, single people—those widowed, divorced, separated or single—are closer to near poverty guidelines than are couples. According to federal guidelines in 1974, poverty means less than $2,350 per year for a single person, $2,940 for a couple. Near poverty is defined as less than $2,940 for a single person and less than $3,700 for a couple. Proximity to the poverty threshold is indicated not only through the question concerning how much money people have in the bank, but also by the charts below. Forty percent of single people have less than $1500 in the bank (a Food Stamp guideline) while 27% of the married people fall below the Food Stamp guideline of $2250. The median income for single people is right at the near-poverty level. In other words, 51% of single people and 11% of couples are below the near poverty level.

TABLE 5.—MONTHLY HOUSEHOLD INCOME

	Single	Couple	Annualized income
Less than $100	[1] 1	----------	Less than $1,200
$100 to $149	[1] 3	----------	$1,200 to $1,799
$150 to $199	[1] 6	----------	$1,800 to $2,399
$200 to $249	[2] 15	[1] 1	$2,400 to $2,999
$250 to $299	4	[2] 3	$3,000 to $3,599
$300 to $349	2	2	$3,600 to $4,199
$350 to $399	3	7	$4,200 to $4,799
$400 to $449	6	9	$4,800 to $5,399
$450 to $499	3	4	$5,400 to $5,999
$500 to $599	3	7	$5,000 to $7,199
More than $600	3	13	More than $7,200

[1] Poverty level.
[2] Near poverty level.

Eighty-three percent have incomes less than $7200, while 65% of the seniors have incomes below $5200—a minimum income for elderly as determined by the Department of Labor in 1975. The median income for all families in Windham County in 1969 was $9,081.

Only 2% have Food Stamps, although according to the questionnaires, another 15 are eligible. These people have been followed up by ACCESS, an information and referral service of the Council on Aging. So it seems that, in any case, the Clinics do not attract the poorest people, but lower and middle income people. This result is regrettably to be expected, inasmuch as the very poor are eligible for programs such as Medicaid and thus for free medical care. It is those persons in "gray income areas" having too much money to be eligible for Medicare, but too little to finance good medical care, that are most in need of programs such as the Clinic.

In regard to medical insurance and expenses, most—86%—have "Medicare and 71% have private medical insurance. Only 5% have Medicaid and, as mentioned above, that is what was expected, since Medicaid covers all medical expenses.

Of those people who have Medicare, 70% have not used any of their deductible, and only 10% have used all of it. About one-third do have regular expenses for medicine, while 38% have not had any medical expenses in the past year.

SUMMARY

The objective of hooking people into the primary care system is becoming a reality, since 30% of the patients did not have a regular doctor before attending the Clinic. Through the clinic, each person has had an opportunity to choose his/her own physician.

In terms of successful preventative care, the great numbers of recommended follow-up indicate that potential medical problems are being caught and treated before they become serious.

When it comes to health care, there are many contradictions between people's perceived needs and their actual needs. A preventative education program might aid in raising the need to a conscious level.

Special efforts should be made to attract people from Brookline, Dummerston, Guilford, Newfane, Readsboro, Stratton, Vernon, Wardsboro and Wilmington. Halfway through the program, these are the underserved towns.

Although many people have seen a doctor for acute care within the past 2 years, far fewer have had a physical check-up in that period of time. Again, this is indicative of the need for education for preventative care.

The Clinic serves the needs of those in the "gray area" of income—those having too much money for Food Stamps or Medicaid programs but not quite enough to afford consistent preventative care.

SENIOR HEALTH CLINICS

Interviewer: _____
Date: August-December, 1975:

SOCIAL/FINANCIAL QUESTIONNAIRE—CUMULATIVE RESULTS

Name: _____
Address: Brattleboro, 52; Dover, 3; Guilford, 2; Halifax, 2; Hinsdale, 1; Jamaica, 6; Marlboro, 3; Newfane, 1; Putney, 8; Readsboro, 1; Searsburg, 1; Townshend, 7; Vernon, 3; Westminster, 1; Whitingham, 8; Wilmington, 3.
Phone: _____
Nearest Neighbor's Phone: _____
Sex: F–63; M–39.
Birthdate: Median—1904.
Age _____
Social Security Number: _____
Communications Problem: None—91; hearing—9; speech—1; Memory—1.
Marital Status: married—49; widowed—38; single—5; divorced/separated—10.
Number of people in household: one—41; two—51; three—4; four—2; five—2; seven—1 N/A—1.
Type of housing: house—66; apartment—28; trailer—7; nursing home—1.
Do you own or rent? own—67; rent—35.
Do you have any relatives living close by? yes—71; no—31.
Do you attend any clubs or groups regularly? yes—59; no—41; N/A—2.
Do you do your own food shopping? yes—94; no—7, N/A—1.
Would you like to get out or talk to people more often? yes—21; no—78; N/A—3.
How would you describe your appetite? very good—16; good—72; fair—12; poor—2.
Do you eat well? yes—98; no—4.
How would you describe your health? excellent—6; good—81; fair—11; poor—3; N/A—1.
Do you have any health problems now? yes—51; no—51.
_____
_____
_____
Are you worried about your health? yes—19; no—83.
Have you been in a hospital or rest home in the last 2 years? yes—23; no—79.
Do you have a regular doctor now? yes—72; no—30.
If so, who is your doctor? _____
When was the last time you saw your doctor? median—1 year.
When was the last time you saw *any* doctor? median—1 year.
When was the last time you had a physical? median—3 years.
Interviewer Note: If patient does not have a regular physician, ask the patient to select an available physician from the list. In either case, ask the patient to sign a medical consent form.
Do you feel you ought to see a doctor regularly? yes—45; no—57.
Why? age—4; blood pressure check—3; prevention—3; medical problems—7; check-up—6; reassurance—1; N/A—21.
(If patient has not seen a doctor in a year or more)
Why haven't you seen a doctor regularly? feels healthy—32; no need—21. can't get appt.—4; no doctor—1; moved—2; neglect—3; transportation—1; can't afford—1.
Why did you come to this clinic? motivation from other person—25; low cost—3; for tests—14; specific medical problem—16; need a doctor—3; check-up—31; beginning of National Health—1; no response—9.
How did you hear about the clinic? Newspaper, 34; letter, 38; Sr. Center, 23; phone, 19; friend, 10; ACESS, 1; radio, 1; other, 4.

SOCIAL/FINANCIAL QUESTIONNAIRE

	Yes	No	NA
Do you receive social security?	95	6	1
Do you receive SSI or social security "gold checks?"	4	97	1
Do you receive income other than social security?	68	33	1
If single: Do you have more than $1,500 in the bank?	31	21	1
If a couple: Do you have more than $2,250 in the bank?	35	13	1

	Amount
Approximately, what is your total monthly household income (including social security)?	
Single—median	$240
Couple—median	450

	Yes	No	NA
Do you have medicare?	88	13	1

	Amount
How much of your medicare deductible have you used since January?	
Zero	$62
Some	6
$60	9

	Yes	No	NA
Do you have medicaid?	5	96	1
Do you have private medical insurance (such a Blue Cross/Blue Shield)?	73	27	2
Do you receive food stamps?	2	99	
Do you have regular, monthly expenses for medicines?	35	66	1

	Amount
If yes, approximately what amount?	
How much in total medical expenses have you paid in the last 12 months?	
0	$39
0 to $50	21
$50 to $100	13
$100 to $500	12
$500-plus	4
Not available	13

STATEMENT OF DR. JAMES R. HUGHES, M.D., NORWICH, VT.

Thank you for your invitation to comment on the problems or rural health care delivery. I wish to register these remarks with the Rural Development Sub-Committee of the Agriculture Committee.

Although I comment as an individual physician, I would like the Sub-Committee to note that I am the Vice-President (President-Elect) of the New England Pediatric Society, the Editor of *Green Mountain Pediatrics* (Chapter Newsletter of the American Academy of Pediatrics), and have chaired two Round-tables at Annual Meetings of the American Academy of Pediatrics on Rural Health Care.

My concern is the inhibitory effect upon medical practice in this part of Vermont of the "closed staff" policy of the Mary Hitchcock Memorial Hospital. By excluding from the staff all physicians who are not members either of the Dartmouth Medical School faculty or of the private (not 501(c)(3)) corporation, the Hitchcock Clinic, the MHMH not only fails to meet its full potential of service to the community but also operates on the very fringes of legal propriety. This, at least, has been my opinion and the subject of a formal complaint lodged by me with the Internal Revenue Service. The Vermont State Medical Society has considered this problem over the past two years and has made it the subject both of Resolution and Report. Mr. Getty Page, Executive Director of VSMS, could provide you with information concerning the Society's action.

This "closed staff" policy is particularly ominous as the Dartmouth Hitchcock Medical Center studies—with federal funding—the possible development of a Health Maintenance Organization. Indeed, in his quarterly report of the Hitchcock Foundation Health Maintenance Organization Feasibility Study, Project Director John Collins states, "Physicians in the service area are suspicious of the HMO concept. The problem is exacerbated by the traditional 'friction' between the closed-panel structure of DHMC and physicians in the surrounding area."

VERMONT DEPARTMENT OF HEALTH—EMERGENCY MEDICAL SERVICES IN VERMONT

One of the greatest problems in a mountainous rural area is that of access to help in an emergency and to definitive medical care. Until recently, such access and transportation in Vermont was provided by funeral homes, local volunteers, State and local police. Five years ago an Emergency Medical Service Program was created within the State Health Department. It has since developed to meet a spectrum of needs in both pre-hospital and hospital phases of care, concentrating on a hospital-ambulance communications system, training for ambulance and hospital emergency personnel, and assistance to the thirteen ambulance districts in coordinating the statewide effort and upgrading their performance and equipment.

The backbone of Vermont's system is the Ambulance District Board with its large number of local volunteers. They, with a few proprietary services, give their time and energy to maintaining twenty-four hour ambulance rescue coverage of their towns. The state program works closely with them to coordinate and complement local efforts and to create a statewide system, emphasizing improvement of performance in all aspects. Two years ago, regional coordinators were hired to live and work in several different areas of the State in order to be constantly in touch with local problems and to assist the ambulance districts in improving their coordination and delivery of emergency care, through such activities as training, boundary establishment, communications guidelines, critiques, disaster planning and others.

Progress under the advice and direction of these coordinators has led to the designation of the current impact area for 1975–76 (ambulance districts Nos. 4, 6, and 8) where further development of communications and coordination of resources will lead to the establishment of a Basic Life Support System.

Currently, the program has retained a communications specialist who is reviewing the present communications system with a view to increasing the public access and local mobility of the system. He has been working closely with hospitals and ambulance services in the impact area in developing his plan, which is included in the appendix.

New EMT training combined with updated equipment and communications potential now allows the possibility of life saving emergency medical care at the scene of the accident or illness, and en route to the hospital. In the end, the improvement of EMS care and performance lies in the efforts of trained, enthusiastic individuals, comfortable with their own skills and with the use of necessary equipment. To realize performance standards, the Health Department EMS office, in conjunction with the University of Vermont College of Medicine, has developed training programs for ambulance personnel, emergency room nurses, physicians in charge of emergency rooms, health professional students and law enforcement personnel. At present, ambulance personnel are offered the 81 hour DOT course with additional emphasis on practical skills leading to State Emergency Medical Technician certification. A selected number undergo 30 more hours of training leading to certification to start I.V.'s according to a strict protocol. The Nurse Coordinator played a key role in developing a thirty hour course leading to State certification in basic resuscitation and life support skills for emergency room nurses which has been used as a model for other rural areas in the nation. This course is offered to about 50 nurses each year.

Many emergency rooms in Vermont are covered by most of the physicians in the community on rotation, rather than by trained emergency room physicians. The observed variation in resuscitation and stabilization skills among these physicians led to the development by the EMS training staff and consultants of a 16 hour workshop in these skills for physicians with emergency room responsibilities. One workshop for 50 physicians was run last autumn and was well received.

In addition, courses for students (medical and nursing) in the Vermont colleges and for law enforcement personnel at the Vermont Police Academy have been developed and are currently offered on demand by the training staff.

But even the best of basic training can be rendered useless through lack of opportunities to practice, and a constant challenge to the entire program is the maintenance of skill and expertise when the ambulance squads and emergency room staffs are involved in few real emergencies. The training staff and the regional coordinators emphasize and encourage the continuous peer review which is also necessary. Ambulance case review sessions (critiques) have been established as the standard for this and one of the regional coordinators' most important efforts is to encourage this ongoing review of ambulance and emergency room performance in relation to the medical diagnosis and followup. Excellence and error both are discussed in a non-critical open forum—a method of peer review which has been working well in districts where it is ongoing.

Another key issue addressed early in the program was the categorization of hospitals and the development of standards for performance in both the pre-hospital and hospital phases of care. A survey of Vermont hospital emergency room capabilities in 1971 led to the formation of an Emergency Medical Facilities Advisory Committee to establish and implement standards. This committee reviewed the categorization system proposed by the AMA but for several reasons found it inapplicable to rural areas. Therefore, it was decided that the minimum standard for every hospital must be the ability on a 24 hour basis, to resuscitate and stabilize, prior to transfer, patients with life-threatening injuries or illness.

The end result was the establishment of a three category system based on performance capability. Site visits to implement these standards will begin in February 1976. Vermont's twelve requirements for Basic Emergency Service classification were recently adopted by the Council on Rural Health and the Committee on Community Emergency Services of the AMA as their criteria for designating a rural hospital as an emeregncy facility. The Vermont EMS committee has continued in an advisory capacity to the Vermont State Health Department Emergency Medical Services program and will shortly publish and implement Protocols for Emergency Procedures, Protocols for Transfer of Emergency Patients and Criteria for Emergency Department Committee Operation. Each set of protocols and standards is developed with input from doctors, nurses, hospital administrators, ambulance personnel and other concerned individuals as appropriate throughout the State so change is slow, but in the end, more permanent, solidly supported and responsive to genuine need.

Financing to allow the development and expansion of such a basic but comprehensive system is dependent almost totally on federal support. The State activities are completely federally funded with no State dollars available. Financing for local level equipment and other necessary items has been on a matching basis with federal revenue from both the Department of Transportation and the Emergency Medical Services Systems Act. Continuation of this federal support is essential to both the State and local ability to further develop this primary and vital delivery system in emergency health care.

STATE OF VERMONT, AGENCY OF HUMAN SERVICES

To: C. Earl Gettinger, Vermont Health Department, Impact Area District Ambulance Committees, Vermont Hospital Association.
From: Thomas B. Brask, Communications Specialist.
Subject: Report on Vermont's Medical Action Response Communication (MARC) System.

INTRODUCTION

The MARC I System should provide all communications necessary for basic emergency ambulance service including public access by telephone, mobilization and notification of personnel (attendant and driver. Emergency Room staff nurses and physicians), dispatch radio communications with vehicles, medical communications (voice) between ambulance and hosptial.

The medical information should be carried on radio channels used exclusively for this purpose. This means that dispatching and other business communications should also be transmitted on separate channels. A means should be provided to interface ambulance radios with the law enforcement system and a radio channel should be available statewide for communication and coordination among various personnel in the system. In addition, the system should pro-

vide for 1) the continuation of present methods of public access to EMS ambulance (calling the ambulance service directly) 2) improve public access by providing a widely available telephone number answered by someone that can also assume responsibility for taking information from an emergency call and mobilizing the appropriate response service. A number of optional actions are available to us to meet these basic needs. A discussion of alternative actions in three areas follows.

(1) Access.
(2) Dispatch mobilization.
(3) Medical control.

The mitigating factors surrounding any choice will be local level acceptability, the availability of funds, telephone system capability and FCC regulations.

I. Access

We basically want to make it as easy as possible for the public to mobilize the most appropriate response service when a medical emergency occurs. More than one of the following actions might be taken.

ACTION A

Establish a single emergency reporting number for the impact area, 911 for all emergencies. This is desirable from the public's point of view but has a significant time delay before implementation could be accomplished, will require the cooperation of all public safety services in the impact area and requires a substantial, direct capital outlay by the communities and the telephone companies themselves.

ACTION B

The placing of current ambulance response numbers in the front of all phone directories along with the Police & Fire Emergency numbers now listed for each community. There seems to be little reason for continuation of the present disregard for EMS that is exhibited by the publishers and distributors of the telephone directories in the state of Vermont.

It will be necessary for each district ambulance committee to formally adopt a schedule showing the primary response service (the service that should be first called for all "areas" in its jurisdiction. This list should then be conveyed officially to the appropriate telephone company(s) for publication in the next telephone book. A request should also be made that a large block statement should be placed in the yellow page section under "Ambulance" that will direct the caller to the front cover for Emergency Ambulance Service.

ACTION C

In addition to the current numbers that ambulance services utilize, a single seven digit number could be established to receive EMS calls from any place in the impact area (or state). The only plausible method of accomplishing this would be to use an 800 number that would be toll free for the caller. The caller would have to dial 1–800 and the 7 digit number. The number would have to be answered by someone that could determine the caller's location and the proper response service to be altered. One of two procedures could then be followed. (1) The answering operator could call the dispatcher for the appropriate service and give the information or possibly connect the caller to the service dispatcher; or (2) the answering operator could be capable of mobilizing the ambulance crew and dispatching the ambulance to the scene. It's possible that these actions might be different for different services and might vary during hours when local personnel are less available. For example, a given ambulance service might wish to forward calls automatically (electronically) to this number when its own number cannot be covered.

ACTION D

The present campaign by the law enforcement agencies to encourage the public to dial "O" for Police Emergency will probably result in an increase in the calls for EMS that the operator "O" now receives. The New England Telephone Company has refused us permission to provide tie lines at the operator positions similar to those permitted the law enforcement agencies. Tie lines would allow more rapid disposition of an EMS call. Since the operators will get the calls anyway, we can at least provide them with information regarding the proper first response service for all areas. It will be necessary for the telephone company operator to determine the caller's location in rough geographic terms, i.e. town, village, road, junction, etc., in order to make an adequate disposition of the call. It will then be the responsibility of the ambulance service receiving the call to either respond or pass the information to a pre-determined backup service that will respond.

The results of this action providing telephone operators with ambulance service area information impact. Dialing "O" apparently can meet only the short term needs for a state wide emergency access number. The reason the course of action is considered short term is that New England Telephone has plans underway to consolidate the toll operator centers now located throughout the state into one or possibly two locations by 1980. The effect of such consolidation will be the probability that an "O" phone call will be answered by an operator hundreds of miles away with no knowledge of local EMS resources available to the caller.

ACTION E

Any organization publishing its number as an emergency service has the moral and probably legal obligation to secure an EMS response for any caller regardless of location. Therefore, anyone dispatching ambulance or medical rescue service regardless of whether it is a volunteer crew member with a red phone in their home or a full time paid dispatcher must be knowledgeable of their own service area and those around them. A caller for EMS should not be told, "The location is out of our service area." Normal practice should be developed guaranteeing that pertinent information will automatically be taken and passed on to the appropriate first response service.

ACTION F

Each telephone in the impact area should have a well designed sticker placed upon it with at least the single telephone number for EMS or ambulance service. As in Action B it will be necessary to designate the first response services for each area and that number should be published on the stickers in that area. In addition, if a statewide access number is established, this would also be shown on the sticker basically in this manner: Emergency Ambulance—call 864–1234; if unable to get help call 1–(800) 123–1000.

Cost discussion of actions A–F

Action A (911) cannot be considered for the short term but ultimately there will be costs incurred by the phone companies to convert their equipment to 911. This cost presumably will show up in their overall rate structure. Secondly, there will be costs incurred locally ranging from simple connection charges to possibly the cost of entire dispatch center. Action B, D, E & F represents little if any cost. Action C (800 toll free number) involves telephone and equipment charge of perhaps a few thousand dollars annually. The most significant cost will be personnel and facilities. This function could be combined with other duties since the call rate would be extremely low.

INTRODUCTION

Dispatch and mobilization

This phase of communication appears to require the most effort and has the greatest room for improvement. The majority of services in the impact area are volunteer and those that are not volunteer are still concerned with paging backup crews. The addition of paging and dispatch radio communications will allow assigned crews more freedom and mobility and provide faster response.

Again, various options are open to us in meeting dispatch radio needs. The constraints that will eventually be applied in the selection of a system are legal as well as monetary.

UHF

It is sensible to consider using the UHF (450–460 MHz) Radio Channels assigned to EMS and this has been done in anticipation of an eventual move to the UHF band for medical communications. Considering the major Vermont investment in the current system, VHF (150–170 MHz) and the present fiscal situation alone, UHF is not a good choice at this time. There also exists a problem in utilizing the UHF frequencies in the area of Vermont within 75 miles of the Canadian border. So far the Canadian government has allowed use of only one UHF medical channel. (This is their prerogative by treaty.) Practical alternative actions within the VHF band follow:

ACTION 11 A

General description: In simplistic terms we can add more special channels to the radio system now operating for EMS. Separate channels will be necessary for each function, i.e. (1) Dispatch and (2) Paging. This would mean, for example, that channel two on the mobiles would be a dispatch channel used by the driver to talk to his dispatcher. Each dispatcher would need a base station on that frequency or direct lines to a common base station. The latter is the only feasible method from a cost standpoint. Paging would have to be done with separate base stations. The ambulance crew would monitor at least the paging frequency on either a scanner or a single frequency pager. If they also wanted to know what was on the dispatch channel this would have to be monitored on a scanner or portable but not the ordinary pager. (See Figure 1.)

The estimated cost of action 11 A

Base stations/encoders/dial entry	$25,000
Mobile modification	5,000
Pagers $350 each times 48 (4 for each service)	14,400
Leased line charges and toll calls recurring (per year)	8,000
Recurring maintenance costs	5,000
First year estimate	58,000

TECHNICAL DISCUSSION

Establish one of the special emergency high band VHF radio frequencies as the dispatch and state wide business talk channel for EMS and designate a second frequency, one of the VHF high power paging frequencies for crew mobilization and paging (one way). This would mean either one of two systems would develop. (1) Two or three base stations would be licensed for dispatch in the impact area and each of the (12) service dispatchers connected by leased telephone lines. There is no particular reason to code the squelch for separate services in this case. A similar set of base stations would also have to be constructed for paging. However, these could be accessed by dial telephone by the dispatchers as shown in Figure 1. Standard pagers or portable monitors could be used with selective calls for each service so that one group's alert would not rouse others.

ACTION 11 B

General description

On this alternative it is proposed that a system of mobile relay stations be established for both dispatch and paging of ambulance crews. This system is shown in Figure 2. In this approach, the need for leased telephone lines is elim-

inated and all mobiles in the system can operate through the mountain top relay station just as each dispatcher does. The system works as follows. A mobile radio would transmit to the mountain top relay station—the signal is then retransmitted at higher power. The effective coverage of the mobile is considerably extended. Dispatch and paging would be done on the same channel.

Estimated cost for action 11 B

Mobile relay stations	$15,000
Dispatcher stations	20,000
Mobile modifications	5,000
Subtotal	40,000
Pagers (each)	350
Recurring maintenance	4,000

TECHNICAL DISCUSSION

A second FCC radio service in which I believe the ambulance districts could be licensed for dispatch is the local government service. There are less restrictions on these frequencies and they result in more flexibility. We could construct three mobile relay stations in the impact area and use the same channel for dispatch and mobilization (paging). Instead of each dispatcher accessing a base station over leased lines, a fixed mobile (small base station) would be used to transmit a signal to the relay stations. The signal would then be retransmitted on another frequency at higher power to the mobile and vice-versa (Figure 2). Paging would be done in the same fashion on the same channel. Separate codes could be provided for each ambulance service—at least for paging. Both dispatcher and mobile stations could have a second channel equipped to operate simplex on the mobile transmit frequency without activating the relay station for local communication.

MEDICAL COMMUNICATIONS

The state has a well developed VHF radio system operating on 155.340 MHz. In the impact area all hospital emergency departments operate on and, hopefully, monitor this frequency. The channel is not overloaded at this time, at least, with ambulance radio traffic. The establishment of a dispatch channel will further clear this channel of some residual chit-chat traffic. There are some actions that could further enhance the usability of this channel.

ACTION III A

The Hospital/Ambulance Medical Radio System could be set up with tone controlled squelch (private line) by putting PL transmitting capability in each mobile. The emergency room would not have to go on standby nor be dialed by the mobiles. A multiple tone encoder could be used giving the ambulance push button access to three or four hospitals. The cost to equip 25 mobiles would be between $3000 and $5000.

ACTION III B

The frequency 155.340 MHz has relatively low traffic but we do experience interference in the impact area particularly when mobiles are talking into base stations and paging interference from Newport and St. Johnsbury. We can improve this situation by making the system two frequency simplex. In this configuration, the Base Station would continue to transmit on 155.340 MHz but the mobile would talk back on another frequency.

ACTION III C

In addition to other actions to improve communications, backup radio coverage could be provided the hospitals in the impact area by having the Medical Center in Burlington answer radio calls during off hours or at night. If necessary, the Medical Center operator would call by telephone the appropriate person in the local impact area hospital.

VERMONT

EMS IMPACT AREA COMMUNICATIONS

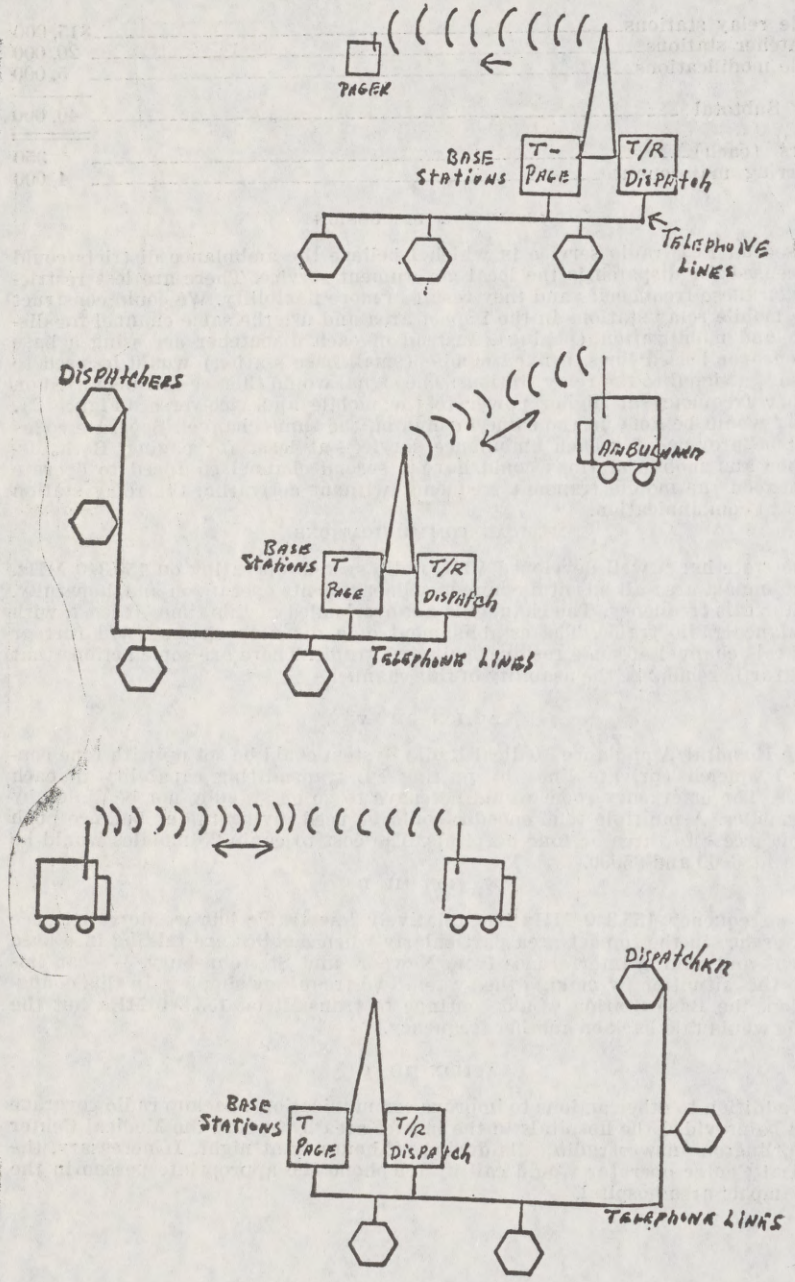


FIGURE 1

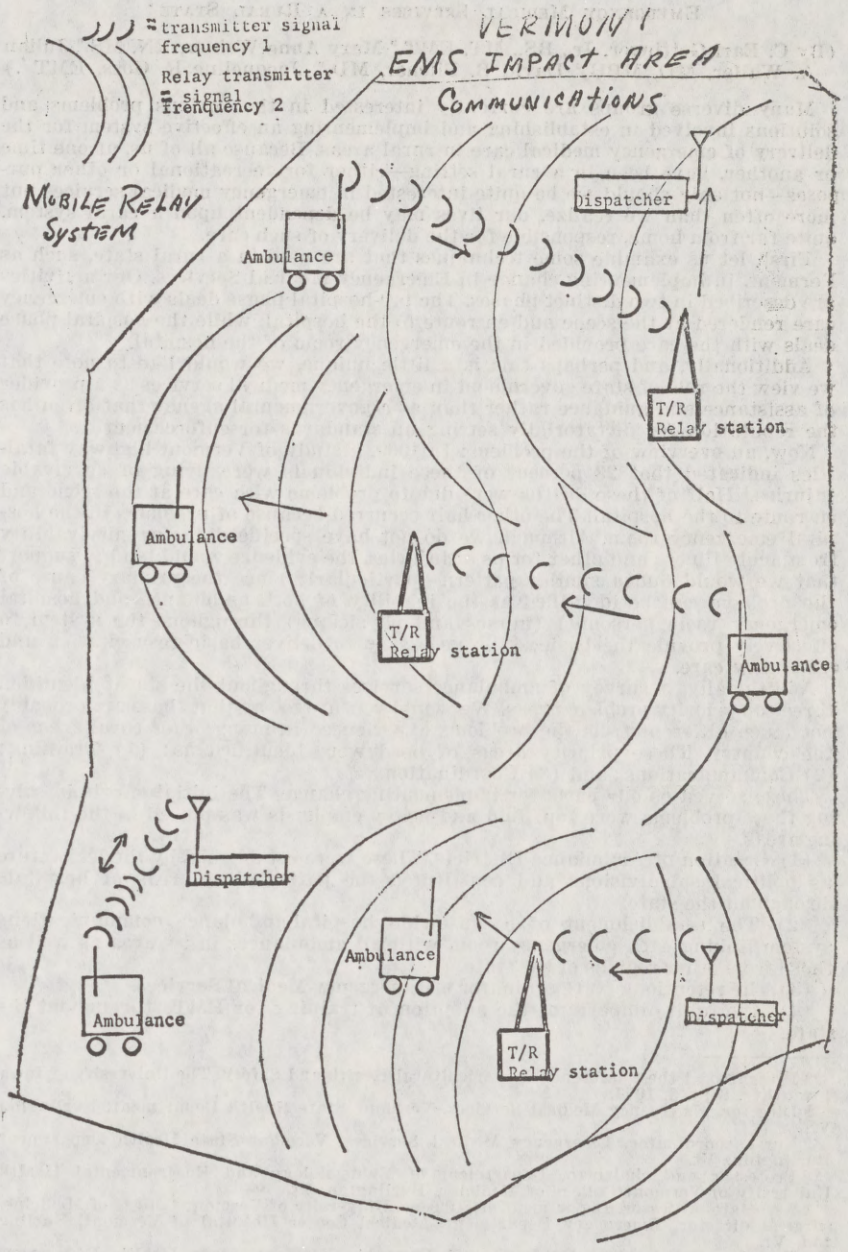

= transmitter signal frequency 1
Relay transmitter = signal frequency 2
MOBILE RELAY SYSTEM
VERMONT
EMS IMPACT AREA
COMMUNICATIONS
Dispatcher
Ambulance
T/R Relay station
Ambulance
T/R Relay station
Ambulance
Dispatcher
Ambulance
Ambulance
T/R Relay station
Dispatcher

FIGURE 2

Emergency Medical Services in a Rural State [a]

(By C. Earl Gettinger, Jr., BS,, MT, EMT,[b] Mary Anne Weiner, RN, MS,[c] Julian A. Waller, MD, MPH,[d] David B. Pilcher, MD,[e], Jacqueline R. Goss, EMT [f].)

Many diverse groups are currently interested in the various problems and solutions involved in establishing and implementing an effective system for the delivery of emergency medical care in rural areas. Because all of us, at one time or another, have been in a rural setting—either for recreational or other purposes—not only should we be quite interested in emergency medical services but more often than we realize, our lives may be dependent upon a rural system, quite far from home, responsible for the delivery of such care.

First, let us examine some techniques that are used in a rural state, such as Vermont, in implementing change in Emergency Medical Services. Our activities are described in two distinct phases. The pre-hospital phase deals with emergency care rendered at the scene and en route to the hospital, while the hospital phase deals with the care provided in the emergency room of the hospital.

Additionally, and perhaps this is a little unique, we would like to note that we view the role of state government in emergency medical services as a provider of assistance and guidance rather than as a governmental agency that often has the reputation for dictatorially setting up standards for enforcement.

Now, an overview of the problem: In 1969, a study of Vermont highway fatalities indicated that 23 percent of these individuals were dying of survivable injuries.[1] Half of these deaths were due to problems with care at the scene and en route to the hospital. The other half occurred because of problems in the hospital emergency room. Although we do not have specific data for survivability from acute illness and other forms of injuries, the evidence would tend to support that we would find a similar pattern—particularly since the primary cause of the problem can be identified as the inability of both ambulance and hospital emergency room personnel (nurses and physicians) throughout the system to effectively provide the basic skills necessary to deliver basic resuscitation and emergency care.

Additionally, a survey of ambulance services throughout the state [2] identified three top priority problem areas. We would venture to say that these are probably not much different from the problems experienced in many other rural areas of the country. These priority areas of need were identified as: (1) Training; (2) Communications; and (3) Coordination.

These served as our basis for implementing change. The initial efforts in solving these problems were four-fold and heavy emphasis was placed in the following areas.

(1) Creation of Ambulance Districts. These were established by the legislature as political sub-divisions and constituted the patient-shed areas of hospitals throughout the state.

(2) The establishment of a statewide hospital-ambulance communications system linking each emergency room with all ambulances in its area as well as those from other regions of the state.

(3) The retention of a Coordinator of Emergency Medical Services.

(4) And, quite important, the adoption of training for EMTs throughout the state.

---

[a] Presented at the Conference on Agricultural Health and Safety, The University of Iowa, Iowa City, Sept. 5, 1974.

[b] Director, Emergency Medical Services, Vermont State Health Department, Burlington, Vt.

[c] Nurse coordinator, Emergency Medical Services, Vermont State Health Department, Burlington, Vt.

[d] Professor and chairman, Department of Epidemiology and Environmental Health, University of Vermont College of Medicine, Burlington, Vt.

[e] Associate professor, Department of Surgery, University of Vermont College of Medicine; surgical director, Emergency Department, Medical Center Hospital of Vermont, Burlington, Vt.

[f] Training coordinator, University of Vermont—Vermont State Health Department emergency medical services program, Burlington, Vt.

[1] Perrine, M. W., Waller, J. A. and Harris, L. S. "Alcohol and Highway Safety: Behavioral and Medical Aspects." Final Report to the Department of Transportation. (FH–11–6609 and FH–11–6899), Project ABETS, Psychology Department, University of Vermont, Burlington. 1971.

[2] Waller, J. A. and Jacobs, L. "Ambulance Service in Vermont." Vermont Department of Public Health and Department of Communtiy Medicine, University of Vermont College of Medicine. Burlington, 1971.

All of these occurred simultaneously. In the beginning, primary emphasis was placed on training. The 81-hour EMT program, as developed by the Department of Transportation,[3] was adopted and used throughout the state. At the same time, we were attempting to stimulate ambulance district activities throughout the state to promote planning and activity at the local level for Emergency Medical Services.

Preliminary Findings.—After approximately one year, we noted that where training programs had been established and the program had been basically a good one, it was easy for us to stimulate district activity. The changes in attitude and concepts of emergency medical services were remarkable and easy to sell when the district was made up of well-trained individuals. Demonstrable progress then became spontaneous.

As time went on, however, we identified more problems—very important ones:

(1) Poor courses—We found in several areas that the local level had few qualified people who were able to teach practical skills and knowledge in Emergency Medical Care.

(2) In areas where training did take place, we also started to receive the following complaints from ambulance groups: "We try to do a good job and when we get the patient to the hospital, they drop the ball in continuing care."

(3) We also recognized our inability to respond to and meet local needs. Someone who lives in the capital or home office cannot effectively offer real and knowledgeable assistance at the local level.

Additionally, during this time span, we collected some new essential base line data on hospital emergency departments[4] throughout the state and on existing patterns of emergency communications systems, including ambulances, police and fire agencies.[5]

Accordingly, we re-evaluated our policy for a new and expanded approach to the problem.

Expanded approach

(1) One of the steps in our expanded approach was the development of training aids and the retention of knowledgeable and articulate personnel of the Emergency Medical Technician caliber to assist in teaching and improving *basic* practical skills taught at the local level. We are not concerned so much with whether the EMT can do an EKG, but more importantly, we feel he should not only know how to put on a splint, backboard or carry out other basic emergency care procedures, but that he also know when to. Especially important, he must have had some practice and have developed expertise in carrying out such procedures.

(2) Regional Coordinators were retained to live and work at the local level and provide assistance to the Ambulance Districts, individual ambulance squads, and hospitals within that area. Much of their activity has been involved in working with the pre-hospital phase of care. This activity includes such things as coordination of courses at the local level, stimulating activity in the Ambulance Districts, improving attendance and representation on the board, setting up communication procedures and protocols, planning for back-up ambulance response and equipment exchanges at the hospital.

Additionally, the establishment of ambulance critiques among the hospital and ambulance personnel is extremely important.[6] In a rural state, one does not get many emergency calls and thus field experience is limited, especially among a cadre of volunteers. Since experience is predicated on field time, many basic skills are likely to become rusty. A technique which can be used to minimize this disadvantage is for all personnel to review and critique each emergency ambulance call. Through such a review, many can benefit from the experiences of a few individuals in handling a particular emergency that they might not otherwise encounter.

---

[3] "Basic Training Program for Emergency Medical Technician-Ambulance: Course Guide and Course Coordinator Program." U.S. Government Printing Office, 1969.

[4] Kanwit, J. H. and Gettinger, C. E. "Hospital Emergency Services in Vermont." Final Report to the Division of Emergency Services, Department of Health, Education and Welfare on Purchase Order No. RO1–779–71. Vermont Department of Health. Burlington. August 1971.

[5] Goss, J. R., Waller, J. A. and Gettinger, C. E. "Emergency Communications and Dispatch Systems in Vermont." Final Report to the Division of Emergency Health Services, Department of Health, Education and Welfare on Purchase Order No. PLD 10853–72. Vermont State Health Department. Burlington. June 1973.

[6] Pilcher, D. B. "Ambulance Critique Review." *Journal of the American College of Emergency Physicians.* November/December 1974. 383–4.

All of the activities in which the regional coordinators are involved are directed at assisting in up-grading and maintaining the basic day-to-day activities in emergency medical services as well as at identifying problems at the local level.

In addition, the regional EMS Coordinators have the rather unique capability, utilizing assigned authorized emergency vehicles, to respond to the scene of major accidents and emergencies, in order to evaluate the quality of care both at the scene and in the Emergency Room. This is done with a view to identifying problems and providing guidelines in their solution, as well as assisting groups to be able to provide the most coordinated response and care.

(3) In addition to the above, performance standards[7 8] were established for hospital emergency rooms by utilizing a statewide workshop and a state EMS Advisory Committee working closely with all interested and concerned parties to develop realistic and workable goals.

(4) A training program for emergency room nurses was developed and offered. This will be examined momentarily.

The results

(1) We now have basically good EMT courses where individuals are taught and examined in the practical skills necessary in the field.

(2) People are working together better and setting up a system at the local level as a result of good training and the assistance of the regional coordinators. This activity is most often generated at Ambulance District meetings and subsequently by the regional coordinators, who follow-up on activities discussed.

(3) There is increased understanding between ambulance and hospital personnel on their respective roles in emergency medical services. This in turn has been reflected in a significant improvement in their working relationships.

(4) The ambulance personnel and hospital staffs are using the right equipment (i.e. splints, backboards, etc.), and they are working together to do the job rather than undoing each other's efforts. Rather than the nurse or physician slamming the door in the ambulance attendant's face, they are having them in for coffee, they're talking, and they're having a good exchange of ideas and experience. An example is an accident patient who is brought to the hospital by ambulance, immobilized on a backboard and splinted. Now the emergency room staff leave the equipment in place and take evaluation X-rays. In the past, it was noted that they might remove the splint and backboard and later put them back on with the observation, "Yeah, that leg really is broken!"

Change utilizing these techniques is slow; however, it is based on knowledge and acceptance and is more permanent. The key to implementing change is predicated on training, coordination and communications, and by far the most important of these is training.

These foregoing remarks have addressed themselves basically to the problems and solutions generated in the pre-hospital phase of care.

Now, the four major factors influencing the direction that change took in the HOSPITAL phase of emergency care included:

(1) The survivable injury study;

(2) The result of upgraded EMT training;

(3) A hospital emergency survey revealing deficits in availability of equipment, staffing patterns and training; and

(4) The fact that in rural hospitals the nurse is the person most readily available to the emergency room in a life-threatening situation.

These problems were tackled at a workshop[9] attended by physicians, nurses and administrators from all Vermont hospitals and representatives from all professional groups. As a result, performance standards for hospital emergency

---

[7] "Vermont Guidelines for Hospital Emergency Departments. Volume I: Performance Standards for Hospital Emergency Department Classification." Vermont Department of Health. April 1974.

[8] Waller, J. A., Gettinger, C. E. and Weiner, H. A. "Implementing Rural Emergency Health Service Systems." "Journal of the American College of Emergency Physicians." May/June 1974. 151–5.

[9] Waller, J. A., Weiner, M. A., Gettinger, C. E. et al. "Proceedings of Workshop on Emergency Health Services in Vermont." Final report to the Division of Emergency Health Services, Department of Health, Education and Welfare on Purchase Order No. PLD 12177–72. Vermont Department of Health. Burlington. January 1973.

rooms were set as a basis for classification, and a 30-hour training program for emergency room nurses was developed. The standards for classification as a Basic Hospital state specifically the basic skills that both physicians and nurses must have to resuscitate and stabilize seriously ill or injured emergency patients. The hospital performance standards have been published, and preliminary implementation has begun. Emergency procedure protocols, transfer procedures and emergency department committee functions are also being developed.

The course to teach nurses the required didactic material and practical skills was presented five times last fall to some 100 nurses.[10] Heavy emphasis was placed on the practical skills of patient evaluation, airway maintenance, resuscitation of pulmonary and cardiac arrest, treatment of chest trauma, hemorrhage and shock, and fracture immobilization. A six-month follow-up evaluation indicates that the objectives have been met to a very high degree.

There has been a significant increase in the number of nurses permitted and willing to carry out basic but crucial emergency procedures. This is occurring both before the physician arrives and, after his arrival, supplementing—and probably in some instances guiding—the delivery of basic and definitive emergency medical care. A number of examples include: initial examination of patients, use of hospital-ambulance radio for definitive patient data, use of oral airway, starting I.V.'s, applying both air and traction splints, putting patients on backboards before further workup, applying cervical collars, stabilizing flail chests, sealing chest wounds and interpreting EKGs. Many of these are basic procedures and are part of the day-to-day armamentarium of the EMT. One would expect to find them carried out routinely in any emergency room, but our experiences have indicated the real need to focus on the deficits in these areas and provide the requisite training and skills to carry out the required procedures.

Other changes are also occurring in hospital emergency rooms, and as a result of the training, there is a greater unification, understanding and exchange of information between nurses and ambulance personnel. Training for physicians is also being planned.

Before concluding, some anecdotal but interesting observations should also be noted. In the beginning of our nursing course, a good proportion of the nurses with substantial emergency room responsibility and experience did not know how to properly position or use a bag-mask resuscitator. They themselves were a bit shocked by this realization and consequently were highly motivated to learn in what was a heavily skills oriented course.

Recently, another separate group of nurses, physicians and EMT's were tested for their proficiency in CPR—Cardio Pulmonary Resuscitation.[11] Ninety-three percent of the EMT's were rated as proficient, while nurses and physicians had a 23 to 25 percent success rate in carrying out this basic resuscitative skill. Now that we've identified the problem, our work is cut out for us.

Fiscal Support.—Much of our work has been carried out under an EMSDS contract (Experimental Health Services Delivery Systems) with the state of Vermont. The Department of Transportation (DOT) and the Northern New England Regional Medical Program (RMP) have also played significant roles in allowing us to accomplish our goals.

Summary

In summary, we are utilizing a comprehensive systematic approach in both the pre-hospital and hospital phases of emergency medical care—an approach of planning, organization, ongoing evaluation, and most important, training. When good training programs are implemented, change occurs. We're convinced that this approach and concept works because we see change. The study of highway fatalities is being replicated and preliminary evidence indicates that as a result of this approach, we are seeing a decrease in deaths from survivable injuries.

---

[10] Weiner, M. A., Gettinger, C. E., Waller, J. A., Pilcher, D. B. and Goss, J. R. "Inservice Training for Rural Nurses in Emergency Care Concepts and Skills." Developed under a grant from the Northern New England Regional Medical Program. 1972–1973. (In press)

[11] Morgan, J. G. and Sargent, W. Personal Communication, June 1974. Medical Center Hospital of Vermont, Burlington. (To be published.)

Implementing Rural Emergency Health Service Systems—Concepts, Components and Configurations

(By Julian A. Waller, MD, MPH,[1] C. Earl Gettinger, Jr., BS, MT, EMT,[2] and Mary Anne Weiner, RN, MS,[3] Burlington, Vt.)

The problems involved in providing emergency health services to a rural area are examined with Vermont serving as the example. Since most EMS studies have been conducted in urban areas, many of the resultant recommendations are invalid in a rural setting. Programs for training physicians, nurses and EMTs are inhibited by a lack of teachers, but the use of packaged teaching modules is proving worthwhile. A communications network utilizing the HEAR® is being implemented but basic problems include non-emergency use of the channel and inadequate staffing. A 12-point method of hospital categorization is underway with a goal of qualifying all Vermont hospitals at least at a "basic" level.

There is a new and refreshing interest in emergency health services research. While the product of this burgeoning interest is both exciting and encouraging, there remain endless questions to be answered. Few studies, for example, have attempted to link inadequacies of care and the frequency or degree of unsatisfactory outcome. Most of the studies are of urban areas and cannot help but reflect the properties of those areas alone. It is difficult, therefore, to document in quantitative fashion the different needs and resources of urban and rural areas. Lacking this information, differences in the corrective methods to be applied are not easily identified. But failure of precise documentation, simply because of lack of examination, should not obscure the fact that major differences do exist. These differences and their administrative implications are worthy of examination.

In referring to rural areas the term "rural" requires definition. Its application is generally limited to service areas of less than 30,000 to 40,000 persons. This usually involves population densities of less than 50 persons per square mile. As communities grow beyond this size, suburban patterns begin to emerge.

PREHOSPITAL PHASE

In rural areas there may be substantial prolongation of the prehospital phase of care. This occurs for several reasons. Wider separation of houses means that calls for help are not always immediately heard. The frequent presence of a substantial proportion, even a majority, of nonresidents suggests that some will not be missed when they go off the road or get in trouble in other ways. And there will be many who do not know how to enter or communicate with the emergency care system.

The relative inability to get into the emergency care system is not entirely unique to rural areas. There are the recluses and the isolated people in urban slums who have similar problems, who sometimes are not found for days after the onset of their injury or illness. But rural areas have such persons as well, probably in equivalent proportions. Thus the special problems already mentioned must be added to the common one of finding the social isolate.

Long delays during the prehospital phase of care may occur in rural areas because distances to the hospital or other medical facilities are generally great. In addition, police, fire, and ambulance services are often manned by widely scattered volunteers, or parttime personnel, who must be summoned from other activities. They are rarely just "ready to roll" at a moment's notice.

Rural emergency care personnel have extremely small per capita annual exposure to real, serious emergencies. No matter how excellent is their training, they may have difficulty in performing essential tasks because they have had inadequate exposure, under stress, to reinforce their skills. The combination of both problems, longer delays in obtaining aid and in transporting patients and the limitations of the personnel supplying the services, renders the prehospital phase of care a more frequent cause of unnecessary death and disability in rural areas than in urban areas. The implications of this observation do not appear

[1] Department of Community Medicine, University of Vermont, Burlington, Vt.
[2] Coordinator, Emergency Medical Services, Vermont State Health Department, Burlington, Vt.
[3] Nurse Coordinator, Emergency Medical Services, Northern New England Regional Medical Program Emergency Medical Services Project, Burlington, Vt.

very great when it is considered that most of the population in the United States is in urban or suburban residence. Yet it remains a frightening reality that 68% of highway fatalities occur in rural areas.

HOSPITAL PHASE

Once the patient arrives in the emergency department in a rural community he is likely to have to wait for a doctor, or even a nurse. When medical personnel do arrive, it is not unusual to find that their skills and judgments may be rusty from lack of use. Physicians or administrators associated with urban and suburban hospitals have some difficulty comprehending the nature of this problem. If a rural area physician or administrator sees a need for nighttime coverage of the emergency department, his urban counterpart suggests that a full time physician might be employed for this task. Similarly, with regard to nursing functions, the urban physician may be concerned with the need for triage among the many patients who wait in the emergency department. Yet on any one night in Vermont, in all except the largest hospital, there are on the average four or fewer emergency department visits after midnight. Nonetheless, there is a disturbingly large chance that the arriving patient may have serious problems, including multiple injuries from a highway crash. There is a constant challenge to provide medical coverage in a situation that usually cannot support a full time emergency physician, to cope with intrapatient triage instead of triage among several patients.

TRAINING OF PERSONNEL

It is apparent that the training needs for personnel in rural areas differ from those of these same personnel in more densely populated regions. The emphasis, for the nurse and the ambulance technician, must be on simple procedures, not easily forgotten, which will maintain the patient for a sufficient time until the physician arrives. This means that an advanced 480 hour EMT course [4] probably is not appropriate to rural areas, although it might be essential in the urban setting. For the physician, the emphasis also has to be on diagnostic skills and procedures that are not likely to be lost, even if they are not called upon very often.

There remains an additional training problem that specially plagues the rural area, namely, that of finding sufficient instructors who are both competent and comfortable with the material to be taught. The 81-hour EMT course developed by Dunlap and Associates for the Department of Transportation [5] was pretested in Stamford, Connecticut where there was an adequate staff of physicians, including many specialists. But can the Dunlap package be taught as successfully in a service area with a total of eight physicians and osteopaths, including one pediatrician, one internist, one surgeon, and five general practitioners? Do they have the time? Are they comfortable with the material? Can they teach it? In too many cases the answer to one or more of these questions is "no."

CATEGORIZATION

A system for the categorization of the capabilities of hospital emergency facilities, recently published if not endorsed by the American Medical Association [6] clearly was not designed for rural areas. The unstated but basic assumption of the system is that the patient and his rescuers will have several hospitals from which to choose in a community, and that through categorization it will be possible to identify hospitals that should be bypassed in an emergency. Much more commonly, however, in rural areas there is at best only one hospital from which to choose. And that one, as already noted, may have staff who, despite excellent training, are hampered by the sparsity of their experience.

COMMUNICATIONS

Special problems of communication exist in rural areas. This does not mean that the emergency communication systems of urban areas are free of difficulties. Two recent reports in *The New York Times* highlighted problems experienced

[4] "Advanced training program for emergency medical technicians—ambulance," Division of Medical Sciences, National Academy of Sciences, 1970.

[5] "Basic training program for emergency medical technician—ambulance," U.S. Department of Transportation, National Highway Safety Bureau, 1970.

[6] "Categorization of hospital emergency capabilities," American Medical Association, Chicago, 1971.

in that city with its highly touted emergency telephone system utilizing the universal emergency telephone number, 911. They first stated that the system is clogged with relative non-emergencies, that persons calling 911 may have to wait ten minutes or longer before an operator answers the phone, and that once the call is taken there may be an additional delay, of as much as an hour or more, before those providing assistance arrive. The second report described the collapse of an old hotel in the city with the deaths of several among the over 300 residents. In this case emergency calls to the 911 system, made *before* the collapse, failed to reach the operator, and the opportunity was lost to evacuate the building and thus avert the tragedy.

Those are the problems with a single city-wide system involving several million persons. More common rural problems are emphasized by a recent study of emergency communications in Vermont.[7] For a population of 450,000 residents, there are over 250 separate townships, 94 ambulance services, 56 police departments, and 227 fire departments. Inquiries were made to determine how they currently communicate, both in and between organizations, as well as how they receive calls. A few examples of good interagency communication were found as well as many instances of quite acceptable internal communication within police departments. Communication in ambulance groups was especially good, partly as a result of the active promotion by the State Department of Health of the ambulance-to-hospital HEAR® communication system.[8] Communication patterns involving fire departments, however, were appalling. In particular, it was alarming to obtain entirely different descriptions of *interagency* communciation patterns from two or more agencies located in a single community.

Further confounding communication coordination, Vermont is served by ten different telephone companies. In exploring the possibilities and costs of establishing central communication patterns involving the universal emergency telephone number 911, only one of these public utilities appeared to have any concept of such a system.

With these problems as background, possible solutions can be grouped under the headings of overall planning, training, communication, and categorization of hospital emergency capabilities.

OVERALL PLANNING

The pattern of rural emergency services in Vermont and the problems of overall planning have been described in detail.[9,10] It is worthy of note that the state has been divided into 13 ambulance districts, each equivalent to the patient shed of one or, occasionally, more than one hospital. The districts are governed by elected district boards which in some cases have functioned both diligently and knowledgeably, and in other cases neither diligently nor knowledgeably. Those districts appear to function best in which there is a single identifiable and experienced person who becomes the focus and serves as the guide for planing activities. Despite the relatively small size of the state, the services of the Coordinator of Emergency Health Services of the State Department of Health are spread much too thin. For this reason the Department is planning to add three regional coordinators who can work more closely with the less active or effective districts.

TRAINING

There are training problems which are common to all personnel involved, whether they be the first police officer or ambulance attendant called to assist in rescue, or the first physician called to the emergency department. With one exception, the material covered in the 81-hour EMT course[5] is quite adequate for the many volunteer ambulance personnel who provide the services. These people perform their rescue functions out of a sense of civic responsibility and pride, but with little or no previous background or other current activities in the field of health services.

Regarding the exception, there may be prolonged delays before patients with serious hemorrhage are given the specific life supporting treatment they require.

[7] Goss, J. A., Waller, J. A., Gettinger, C. E., Jr.: "Emergency communication and dispatch systems in Vermont," June 1973.
[8] Hospital Emergency Administrative Radio. Motorola, Inc.
[9] Waller, J. A., Jacobs, L.: "Ambulance service in Vermont," Vermont Department of Public Health and Department of Community Medicine, University of Vermont, 1971.
[10] Waller, J. A., Allen, D., Kanwit, J., et al.: "Emergency health services in Vermont—1971 progress report," Vermont Department of Public Health and Department of Community Medicine, University of Vermont, 1971.

This vexing problem is the product of the time consumed in transporting patients long distances from the scene of their emergency to the hospital, or from one hospital to another, and the delays introduced by inclement weather. Although some of these patients might benefit substantially from earlier therapy with intravenous fluids, IV techniques cannot be learned and retained effectively by most of the volunteers. In selected cases, however, such skills *can* be acquired and we have begun to teach them. The individuals receiving such training are chosen for high intelligence, have several years of continuous experience, and are under the close scrutiny of the director of the emergency department of the Medical Center Hospital of Vermont.

In a workshop for hospital personnel held in January 1973, emergency department nurses and physicians were asked to identify those procedures that they considered so crucial to saving life and limb that they must be known by every professional in the emergency department.[11] The nurses also specified those crucial procedures that could be performed in the absence of the physician. The nursing procedures given the highest priority by the attendees are now being taught under a Regional Medical Program grant. Similar training has been requested for physicians by the Vermont Medical Society.

In considering what should be taught to personnel in rural areas, there must be equal interest in who should do the teaching. Participation by local physicians and nurses in teaching of ambulance personnel promotes their understanding of the needs, capabilities, and limitations of these personnel. Fostering an ongoing case review by all emergency health care workers assures that relatively infrequent emergency experiences are efficiently garnered, conserved, and applied. The experience of a single ambulance driver and attendant can provide a review and learning session for the entire ambulance squad and for the emergency department staff as well.

The training given in the EMT course has been spotty, for the reasons already described, but the use of local physicians as teachers has not been abandoned. Instead, packaged teaching modules are being developed for the local physician so that he can observe, listen, and learn together with the students. Without the substantial class preparation which is required for use of the unmodified Dunlap material, the physician can thus participate in the teaching process in an undemanding, comfortable role, namely, making comments on the material and clarifying student questions.

For the nurses' course, it was not feasible to develop local programs for 18 hospitals, nor could a team of circuit riders be assembled. Therefore, the basic course is presented in one place and repeated five times during the year as an intensive 4-day program. The nurses stay at the Medical Center in Burlington for the course duration. The nursing coodinator has responsibility for course development and follow up in the local hospitals, to help ensure that what is learned is also implemented. Other rural areas are beginning to follow similar training patterns in response to comparable problems.

The option of using junior colleges for the courses carries the same inherent difficulties of obtaining faculty. The junior college does offer a more formal teaching setting, if desired, and the advantage of educational monies which may be earmarked to teach the course.

COMMUNICATION

The HEAR® radio system is now installed, or on order, in all hospitals in Vermont. It is also being used in most ambulances. While it appears to be a good system, several transitional problems in implementation were encountered. First, a year full of difficulties was endured before the new equipment was entirely functional and before adequate training in its use had been given to those involved with its operation. The problems do not, however, appear to be unique to the system as they have been experienced in like measure with other communication systems.

Second, hospital administrators in several New England states became convinced that the system could serve a dual purpose, that it could be used as well for intrahospital, non-emergency communications. Such added "usefulness" was found to disastrously disrupt emergency communication. The New England Council for Emergency Medical Services therefore appealed to the Federal Com-

[11] Waller, J. A., Weiner, M. A., Gettinger, C. E., Jr., et al.: "Proceedings of workshop on emergency health services in Vermont," Jan. 26–27, Warren, Vt.

munication Commission to prohibit nonemergency use of the FCC channel and to provide more dedicated emergency communication channels.

Third, in several of the small Vermont hospitals the emergency department is entirely empty at night, the nurse being assigned duty elsewhere in the hospitals. The radio at these hospitals usually is located at the hospital switchboard where it is in the hands of a person who does not have the requisite emergency training. Under these circumstances there should be an additional remote station location in the emergency department so that, once called to duty at that location, the nurse does not have to continue to communicate through the switchboard operator.

Concerning the issue of central dispatch, most Vermont communities are not ready to accept such a program. There is the possibility of linking police and ambulance communications; but in most cases the communication patterns of fire departments are in such serious disarray that to add them would only represent a step backward. Similar problems may exist in other rural areas.

CATEGORIZATION OF HOSPITAL EMERGENCY CAPABILITIES

Without the option of bypassing hospitals in rural areas, one must ensure that all hospitals at least meet minimum specifications. What should those be? It was determined that there must be provided at all hours, as a minimum, any improvement in patient care. Performance criteria were therefore selected. It was determined that these must be provided at all hours, as a minimum, capability for the resuscitation and stabilization of persons with severe problems threatening life or limb. If a hospital has a unit that can provide care for minor emergencies, but is unable to deal at such a basic level with serious emergencies, that unit should not be classified as an emergency department but rather as an outpatient facility.

Twelve criteria for designation of a hospital as a "basic" emergency facility were defined. Work is underway in all Vermont hospitals to ensure that they can meet at least these criteria and, if possible, those for two higher categories. A basic facility must meet these requirements:

1. A two-way radio must be available with the capability of contacting other hospitals and all emergency care ambulances in the ambulance district. There must be staff available 24 hours a day who are trained and proficient in its use.

2. A nurse must be in the hospital and available to the emergency department, 24 hours a day, trained and proficient in triage, resuscitation, maintenance of airway and respiration, and basics of ECG operation and interpretation. She must be able to identify cardiac standstill, ventricular fibrillation, and premature ventricular contractions, and must be skilled in the elements of cardiopulmonary resuscitation, application of pressure dressings, immobilization of fractures, venipuncture, and intravenous therapy.

3. Appropriate protocols (or standing orders) to cover the above emergency activities must be established for use while the physician is en route to the hospital.

4. There must be a physician in the hospital or on call, 24 hours a day, and available within 15 minutes of notification, who is capable of stopping external hemorrhage; performing cardiopulmonary resuscitation, including defibrillation, administration of cardiac drugs, tracheal intubation and chest intubation; immobilizing fractures, and initiating blood volume replacement. A portable page system (preferably voice) is recommended for the physician on call: this should not be a part of the HEAR® system.

5. Laboratory and X-ray technicians available in the hopsital or on call and assessible within 30 minutes 24 hours a day.

6. The following equipment must be available as a minimum:

(a) Examining tables with safety belts capable of being rolled from emergency department to other locations in the hospital without the necessity of transferring the patient.

(b) Laryngoscope.

(c) Oxygen.

(d) Suction.

(e) Airways—all sizes.

(f) Resuscitation equipment.

(g) Blood volume replacement equipment (and blood available within the hospital).

(h) Long bone splints and backboards.
(i) Sutures, hemostats, and other routine materials for control of external hemorrhage.
(j) Cardiac emergency equipment.
(k) Incubator (within the hospital).

7. An active emergency department committete must be created, that meets at least four times a year (and preferably more often), with authority and responsibility to review the operation of the department. It should serve to audit patient care and to make recommendations to be reviewed by the governing body of the hospital. If such recommendations are not implemented, or if they are modified by the governing body, the committee should be informed in writing of the action taken and its rationale. It is recommended that such a committee include a physician, emergency department nurse, and representatives of the hospital administration and ambulance services. Minutes shall be kept of its deliberations. Criteria for committee operation are in process of development.

8. Signs of appropriate size and legibility are required to be placed at strategic locations throughout the community identifying the location of the hospital or related facility. There must be similar signs around the facility identifying the location of the emergency department.

9. The entrance to the emergency department must be well marked and illuminated so that it can be readily identified at all times, even by persons under severe stress. It is recommended that the area around the emergency department entrance be protected from weather.

10. A formal plan must be published, disseminated widely among the staff, and readily available in the emergency department, describing the medical coverage for all hours. The schedule must list the name of the physician with primary responsibility for the services outlined in item 4 above, and those responsible for back up specialty coverage in at least internal medicine and surgery. If possible, back up specialty coverage in obstetrics, pediatrics, orthopedic surgery, and psychiatry shall be included.

11. A formal plan must be published, disseminated widely among the staff, and readily available in the emergency department, covering the management of specific patient situations. It should identify, by problems, those patients who are to be provided with basic emergency care only and then transferred, as well as the necessary procedures to be performed. The arrangements to be made with the ambulance service, other emergency transfer personnel, and with the hospital that is to receive the patient are to be defined. A patient record outlining problems and treatment shall accompany all patients who are transferred.

12. A record of patient problems, care, and outcome, that permits easy and comprehensive review by the emergency department committee, is to be prepared on all patients. Minimum informational requirements are being developed.

The implementation of this system will take time. It includes several philosophical, psychological, and administrative considerations, which have been discussed elsewhere,[12] involving participation in decision processes by many groups. Of major importance is an understanding of the character of the emergency care that the patient should be able to expect in each hospital. In evaluating hospitals it can be asked, very specifically, whether resuscitation and stabilization were achieved in all cases in which they were required; if not, why not; and what, if anything, has been done to avoid similar problems in the future? Thus, it can be determined whether we are really accomplishing our objective, that of implementing rural emergency health service systems.

Ambulance Critique Review

(By David B. Pilcher, MD,[1] Burlington, Vt.)

Ambulance critique review sessions have been used as a method of conducting peer review for ambulance personnel and emergency department staff, including medical students. Such a review permits recognition of excellence as well as constructive criticism of actual performance. A forum for review of practical techniques and pathophysiology is provided.

---

[12] Waller, J. A.: "Categorizing hospital emergency departments in rural areas." Presented at an institute on hospital emergency departments: challenge and change, American Hospital Association, Boston, Sept. 10, 1973.

[1] Department of Surgery, University of Vermont, School of Medicine.

INTRODUCTION

Rigorous standards for training of ambulance personnel have been established by the United States Department of Transportation and the Registry of Emergency Medical Technicians. Physicians have been, and should continue to be, involved in such training.

Given excellent initial training, the development and maintenance of expertise require continuous practice and review. On-scene observation and critique are obviously ideal, but rarely are possible.

METHOD

Adequate records are required in order to reconstruct and review performance of personnel. Resistance to record modification is sometimes encountered with arguments such as "we already have our own report forms" or "we don't want to be doctors—let them do the writing." If the need and usefulness of such report forms can be demonstrated, enthusiastic use of such forms will usually follow. Our report forms, designed with input from EMTs, have been accepted because: (1) one copy is placed on the patient's hospital chart; (2) because of this, the hospital pays part of the cost, and (3) one copy becomes an integral part of the regularly scheduled critique review. Legislation or regulation requiring such reports is another approach to this problem.

Any form which automatically produces a copy which can be left for critique review is suitable. If the only copy is the one for the patient's medical record, there is less likelihood that it will be available for critique. If the only copy left is for the critique, relevance to patient care is diminished.

The emergency department staff, or an emergency medical technician can select the cases for review. The frequency of review is related to the emergency department case load, but it should be held at regularly scheduled times. For emergency department staff, early morning is frequently easiest and fosters the best attendance. For volunteer or paid ambulance services, where off-duty ambulance attendants often have a second job, 7:00 p.m. has been the most popular time. We have resolved this dilemma by alternating between the 8:00 a.m. and 7:00 p.m. times

At the critique review session, the following facets are examined: response time, care prior to ambulance arrival, on-scene evaluation and treatment, changes and treatment enroute, and follow-up in the emergency department and in the hospital. The review of ambulance performance in relation to the medical diagnosis and follow-up is important in increasing the attendants' skills, recognizing excellence, and in reviewing pathophysiology. If errors have occurred, they can be discussed in an open forum where peer review in its purest sense occurs.

Another equally important benefit is education and critique of emergency department personnel. For example, when an unconscious patient is brought in after a head injury and multiple trauma, with a cervical collar and backboard, and the emergency department personnel unstrap and manipulate the neck, this becomes a topic of discussion. Ambulance critique is a review and an educational experience for all.

The following cases are representative of those discussed at our critique review meetings.

Case No. 1

A seven-year-old boy was struck by an automobile. The ambulance responded in thirteen minutes, and found the boy lying on his back with signs of a head injury. When vomiting occurred, he was rolled on his side to aid in airway management. A cervical collar was applied. Suction was used and the patient transported while on his side lying on a long backboard with an air splint to immobilize an injured left leg.

The patient had a fractured femur and a traction splint was applied in the emergency department. The physician felt that the air splint was not immobilizing the fracture because the upper edge was at the level of the fracture. Discussion at the review session centered on the difficulties in using conventional traction apparatus on a child this size. A technique of applying a traction splint to a victim lying on his side was demonstrated by the ambulance crew. Other crews were urged to practice techniques of applying traction splints to children and victims in unusual positions.

Two specific questions asked in follow-up were answered at the critique review. Although no neurosurgical procedure was performed, there was incomplete recovery from the head injury. It was felt that some permanent brain injury would result. Follow-up of the blood loss suggested that it was minimal on the basis of blood counts alone in the hospital.

Case No. 2

A 52-year-old man fell to the ground at a construction site. Cardiopulmonary resuscitation was initiated by a physician and a medical student. Ambulance response time was five minutes. CPR was continued for five minutes by the ambulance attendants at the scene and four more minutes enroute to the hospital. Because there were only two attendants, the city police drove the ambulance. Respiratory efforts were thought to be present

The patient had ventricular fibrillation with a successful resuscitation in the emergency department. The patient had transient brain damage, manifested by seizures, for the first day after resuscitation but was recovering well and ambulating. The physician commented that he felt resuscitation in the ambulance was outstanding.

On follow-up, the patient is alive and well at this time with minimal memory loss as his only deficit.

Case No. 3

A patient thrown 75 feet from an automobile accident was complaining of lumbar back pain and breathing difficulty. Laceration of the scalp and abrasions of the back were present. Blood pressure was 100/76, pulse rate 96, and breathing labored. The patient, not strapped down, was transported on an orthopedic stretcher. He thrashed around and was difficult to manage.

On arrival in the emergency department, the blood pressure was 90/70 and the patient was felt to be in shock. He had a severe fracture at L–4 with no neurological deficit. A ruptured spleen and pneumothorax were also present. The patient was doing well following surgical removal of this spleen and chest tube insertion.

Discussion at the critique review centered, first, on the initial communication to the emergency department which suggested that the patient was not seriously injured. When breathing difficulties increased during transportation, the emergency department was altered, allowing proper personnel to be available for reception of this patient. He was met by the surgical resident whose presence at 3:00 a.m. was vital to the resuscitation. In hospitals where surgical staff may not sleep in, such communication may be even more important.

During the critique review, the importance of trying to strap such a patient to the orthopedic stretcher, or perhaps a long backboard, was stressed. The fact that this fracture was below the level of the spinal cord was reviewed. Problems of fractured vertebrae and spinal cord injuries were also discussed.

Following each critique review session, a mimeographed summary of the cases is distributed to all of the ambulance services involved, using code numbers instead of names.

STATEMENT OF LEANORA M. SEFERT, VERMONT DENTAL CARE PROGRAM, INC., BURLINGTON, VT.

The Vermont Dental Care Program, Inc. was created in 1972 to bring reduced cost dental care to middle and low income rural Vermonters. Mobile clinics moved through the state, treating children and returning to recall them for regular follow up care. Today, each of the units is permanently located in a community center, and outreach and transportation systems connect the outlying rural areas with the dental units.

The seven units are located in Newport, Winooski, Barre, Randolph, Rutland, Bennington, and Springfield. Children from 208 towns in Vermont have been treated, and an average of 22 percent of the services delivered in the first six months of fiscal year 1976 were free to children whose families could not pay even a portion of the bill.

The program is managed from a central office in Burlington which supervises the work of the clinics, bulk orders supplies, administers federal, state, and private funding, and hires and trains the staff. We respectfully submit the enclosed information for the Vermont Rural Health Hearing scheduled for February.

VERMONT DENTAL CARE PROGRAM

The Vermont Dental Care Program is a private, non-profit corporation established in 1972 to provide quality, low cost dental care for children from disadvantaged families.

The program originally identified and targeted five major obstacles preventing low income children from receiving dental care: inadequate dental manpower in rural Vermont; shortage of para-dental auxiliaries; insufficient financial resources among low and marginal income families; transportation difficulties which make long trips to the dentist a hardship; and lack of dental health education compounded by the traditional belief that the loss of one's teeth is inevitable and dental care a waste of money.

Vermont Dental Care equipped and staffed mobile units which traveled throughout rural Vermont. Unemployed and unskilled people were hired and trained as para-dental auxiliaries. Third party funding programs were provided with top utilization of their dollars for care, non-funded care was regulated by the Department of Social Welfare fee schedule, and profits were used to provide care for children whose families were unable to pay even a small portion of the bill. Student and community volunteers took dental health education and nutrition programs into the communities served by the mobile units, and preventive instruction was given top priority in each unit.

By 1974, the Vermont State Department of Health was able to report that "the percentage of children with unmet dental needs decreased 37 percent since 1972." Among preschool children, the percentage of children with dental disease dropped 18 percent, and the number of decayed teeth decreased 27 percent. (Dr. Anthony Robbins, Commissioner. Press release, September 4, 1975.)

Several significant events occurred in those two years. Fluoridation of community water supplies increased. Dental health education was implemented in the schools statewide, in Head Start Centers, and in Day Care Centers. The Tooth Fairy bill made dental care financially available to more children. And the Vermont Dental Care teams ran their circuit through the rural communities. 7,000 children in 23 Vermont communities, most of whom had never been to a dentist before, were examined and treated through the Vermont Dental Care Program. Approximately 25,000 children remain untreated in Vermont. Without proper care, these children will lose many, if not all their teeth. They will encounter pain, disease, humiliation. They will not be able to eat properly; they will miss school; and, they will become unhealthy, undereducated, unattractive and unemployable adults.

Originally, Vermont Dental Care sought funds to invest in equipment for the mobile units. After the units had been traveling for a year, it became feasible to locate the units permanently, transporting the children from their homes to the units which could now operate uninterrupted a full twelve months of the year. Today, Vermont Dental Care is targeting as its most critical area of need the non-funded low income children whose plight is critical. VDC can provide maximum return in care for dollars invested, an investment in a future generation of people whose opportunity for health can significantly break their cycle of poverty.

EVIDENCE OF NEED

The magnitude of the dental crisis which Vermont Dental Care seeks to relieve is evident in the following statistics:

Children from low income families have five times more decayed teeth than other children.

50 percent of all Vermont's children do not see a dentist before they are fifteen years old.

97 out of 100 cavities are untreated among the state's disadvantaged.

Currently there are more than two million unfilled decayed teeth in the mouths of Vermont children. (Dr. John Long, State Division of Dental Health, release 1974.)

One factor which contributes to these distressing figures is the shortage of dentists in Vermont. In 1972, there were 217 dentists for 446,000 people. Today 220 qualified dentists serve the state's 465,000 inhabitants, or approximately one dentist for every 2,200 residents. Compounding this problem is the fact that dentists are clustered in the cities, while the rural areas remain neglected. Vermont Dental Care has brought 15 dentists to Vermont, providing them with fully equipped operatories and a staff familiar with the needs of people in rural areas.

Thus, the dentists are acquainted with and sensitized to the needs of people in the rural community, people they may serve more adequately in the years to come. Today, 10 dentists who have worked with Vermont Dental Care are practicing or preparing to practice in rural Vermont, near the areas they once served for Vermont Dental Care.

Another significant factor which prohibits many low income families from seeking dental care is the high cost of professional services. The Bureau of Labor reported in 1970 that 160,000 Vermonters come from families which fall below the minimum income level required to provide the basic necessities of life. Another 50,000 were considered "marginally poor."

The current economic situation has swelled these numbers significantly. Growing welfare, unemployment, and food stamp rolls underscore this predicament. Even families in the lower middle class have found that their discretionary money has all but disappeared into rising food, fuel, shelter, and clothing costs. Dental needs are given low budget priority when basic life support is threatened.

The state and federal governments have responded. Currently 36,000 Vermont children are eligible for treatment under the Denticaid and Tooth Fairy programs. However, 24,000 children cannot receive the financial help they need because they do not meet the age requirements of the Tooth Fairy program. Vermont Dental Care tries to give thirty percent of its services to these non-funded, needy children, but has had to cut these services in order to meet expenses. Today Vermont Dental Care needs financial support to maintain and increase these vital services to economically impoverished Vermonters who fall between the cracks of Denticaid and Tooth Fairy eligibility.

THE GOALS OF THE VERMONT DENTAL CARE PROGRAM

Basically, the goals are two: (1) To improve dental health among Vermont's low income children by identifying and treating dental disease; and (2) to insure continued dental health by means of preventive services, dental health education, nutrition programs, and use of every way possible to increase dental health awareness among professional members of communities in which low income children reside.

Identification and treatment is the first step. Outreach workers assigned to the units preceded the mobile unit's stay in a given area, contacting agencies, churches, and schools. Transportation needs were assessed and volunteers brought the children to the units. Financial terms were arranged, children were signed up for Tooth Fairy, or Denticaid eligibility was established. It was important in these early months to locate the units in the rural communities, because rural people were more readily acquainted with the service when it was close to home. Later, once the dental routines became more familiar, it was feasible to locate the unit centrally, providing the necessary transportation while the unit operated full time. A fine example of how a community can take over the transportation responsibilities is in a unit where the schools bus their children to the clinic daily for care. When the children arrive, a certified teacher is there to tutor the children, and keep the peace!

Preventive services include prophylaxis, fluoride treatment, education directed toward maintaining dental health, and emphasis on the need for regular dental care and check-ups provided by trained professionals. Ideally, the unit is staffed by dental health and nutritional specialists who use games and play to instill these health principles in the children. In two of our units, this has been the case, however, Vermont Dental Care is presently seeking funding to provide these services in all the clinics.

Dental health education is an effort that must be expanded beyond the relatively limited population served by the units. Often children come to the clinic alone, and dental health is obviously a family concern. Therefore, VDC takes every opportunity to work in schools, Head Start and Day Care centers, and youth programs. The current plan is to train specialists in both dental health and nutrition so they can carry dental health education into the obviously related area of food for health. An ideal link has been established in one community where a VDC worker participates in a food and health focus program generated around the food stamp distribution in that area. Here the worker makes herself available to answer questions about dental problems, makes referrals for care, and attempts to clarify common misunderstandings such as "Baby teeth aren't important because they are supposed to fall out." In her role as nutritionist, she can offer information about low-cost, nutritional meals.

Since people purchase food stamps regularly, the worker has repeated contact with the families using the center, and can follow-up her initial efforts. The workers will be low income, local people trained by Vermont Dental Care professional, thus providing more para-dental manpower for the state as well as giving people a way out of the ranks of the unemployed.

Little remains to be said concerning the nutrition effort, except to emphasize that dental health is overall good health, physical and mental. The child with a diseased mouth cannot eat properly—we met a child who did not drink milk in school (the only milk available to him) because it hurt his teeth! This child needs treatment before nutritional counseling can help him. So dollars go first for treatment. We have met children who are frequently absent from school because of painful abscesses. This child needs dental care, not nutritional counseling. We see a class picture of second graders, and a little girl in the first row is biting her lips together to hide her row of rotten teeth. Today she needs care. Because we see daily the pitiful need for treatment, it is sometimes difficult to look further ahead and provide today the nutritional counseling that will significantly alter the need for treatment in the future. But we have taken the risk of overextending ourselves, and we are soliciting support for both treatment and preventive programs concurrently.

Finally, the goal of increasing general public concern for the unmet dental needs of our Vermont children: In the past, Vermont Dental Care participated in the overall effort to create the Vermont Tooth Fairy legislation. Vermont is the only state in the country that provides this assistance for its disadvantaged youth. Vermont Dental Care supported the bill, then offered a cost for treatment that not only stretched the tax dollar, but returned all profit to the non-funded disadvantaged child's care. Our administrative offices frequently receive calls, "Are you the Tooth Fairy dentists?" Tooth Fairy and Denticaid are bringing children into the dentist's office who never would have been there otherwise. The profession is encountering in growing numbers the low income child, and there are encouraging indications that "free care" is no longer simply a list of the doctor's bad debts. One community where a VDC unit is located is ready to prove that there are no unmet dental needs in their area, and if this is true, VDC will be happy to move.

The final goal of Vermont Dental Care is to move, and move, until there are no unmet dental needs in the state of Vermont. We would like to go out of business! But in the meantime, we don't want to go out of business while the needs are so great. We seek funds to treat the child who could not receive care otherwise, and support for the education and nutrition efforts which we know are crucial.

PROGRAM METHODOLOGY

The clinic's professional staff, including a dentist, two assistants, a hygienist, and an outreach worker and nutritional counselor offer comprehensive treatment and services to disadvantaged children. The system includes the following:

Thorough examinations, radiographs, and diagnoses.
Elimination of pain and infection.
Restoration of decayed and fractured teeth.
Treatment of injuries.
Treatment of anomalies.
Maintenance or recovery of spaces left after extraction if improper occlusion may occur.
Follow-up, and recall for regular care.
Dental health education.
Nutritional counseling.

Vermont Dental Care dentists are chosen because of their proven proficiency in treating children. Furthermore, their willingness to receive a salary below par in the private sector demonstrates their concern for the disadvantaged. They are among the top graduates in their schools, or have successfully practiced in the private sector. They submit their work to peer review regularly, and the standards are high. Vermont Dental Care encourages their dentists to move on into the private sector, knowing that they will make a valuable contribution to their profession in Vermont. Fresh recruits take their place, and continue the work of the program.

Hygienists are hired locally. They are at a premium. Presently the School of Dental Hygience is placing students for work experience in the communities surrounding the Vermont Dental Care units, an effort sure to increase these students' awareness of the needs in rural areas. A most rewarding experience

has been the decision of an outreach worker in one of the clinics to pursue training in dental hygiene having seen the need for hygienists in her area.

Dental Assistants are hired through public assistance Work and Training programs. They are professionally trained by the dentists in the units, and are offered further training culminating in professional accreditation. The Assistants, also, are encouraged to move into the private sector. They leave secure in the knowledge that they are skilled and employable, and they are fully aware of the needs of the disadvantaged. They are replaced by unemployed, unskilled recruits. It is a burden to the program to keep training new assistants, but the shortage of para-dental auxiliaries must be met before Vermont can provide the climate which will attract the dental profession.

In the past, outreach workers, dental health educators, and nutritionists have come to the program through a University Year in Action Program sponsored by the University of Vermont. These students have filled in all the gaps, from running errands to delivering researched and highly professional demonstrations of oral hygiene techniques. The regulations of the UYA program stipulate that an agency may have these students for two years, after which time they must provide the students' stipends for services. Vermont Dental Care is seeking to secure funds to continue the preventive program by providing $1,200 per year for the services of these students. Again, the return goes beyond the services they provide—which are invaluable. These students graduate with first hand awareness of poverty, and the loss of valuable human resources that poverty creates. Many of the UYA sudents finance their education by participating in these work/study programs; they return to the rural areas where they grew up and work towards their degrees by contributing to their own communities, visible returns on the tax dollar spent for state college education.

SUMMARY

In the three years since it was created, Vermont Dental Care has demonstrated a strong dedication and capability for delivering quality dental care to low income children in Vermont. Repeatedly, when Vermont Dental Care is located in a community, they are chosen to provide services to Head Start Centers, Children and Youth health programs, schools, and other community funded projects. Vermont Dental Care has received funding from churches, revenue sharing, private foundations, and state and Federal programs.

To date, more than 7,000 children have been served by Vermont Dental Care's comprehensive dental program. Although many of the children are covered by Denticaid or Tooth Fairy funds, approximately 30 percent of all those treated could not pay for even a small portion of their care. Regrettably, we have been forced to cut back on care given to children with no means to pay because we were seriously faced with bankruptcy.

Dental health is an investment in the future. It leads to overall health and self-confidence. It means being free from pain, being socially motivated, and being employable in the wide range of public contact jobs that are available to healthy, attractive people. It means a child can drink milk at school when it is not available at home. Another child can smile broadly for her second grade class picture.

Without support, Vermont Dental Care will be forced to cut back on treatment for the children who need it most. The nutrition and dental health education program will have to be abandoned because pain and disfigurement must take top priority. Salaries, which were reasonable three years ago, today will cease to enable the program to attract high calibre candidates for positions that have proven to be a stepping stone toward establishing quality professionals in critical areas of the state. Vermont Dental Care's multi-faceted approach to improving the living standard of Vermonters, its dedication to relieving health problems, and its capacity to deliver low-cost, quality care is proven. The program solicits your support.

JANUARY 6, 1976.

Rev. JOHN NUTTING,
Vermont Conference, United Church of Christ,
Burlington, Vt.

DEAR JOHN: We began to make a list of changes that had occurred at Vermont Dental Care over the past year, and discovered that the list is long and productive! We would like to bring you up to date, and share with you the growth of this program which you have supported so faithfully.

The unit in Newport, one of the first to be permanently established, has been given additional space in the OCCSA building to provide a more comfortable

waiting area for families who come to the clinic. Serving a predominantly rural area, this clinic has the smallest patient load, but is used consistently by agencies and families who need care for their children.

The Winooski unit has relocated in the Winooski Valley Family Health Center. Gone are the days when the dentist had to get to work an hour early to thaw the pipes in the old trailer that was hitched up to the church! The Center has provided spacious, carpeted rooms, and the services of a nutritionist. Recently, Dr. Galbraith attended a meeting to request funds for dental care, and a principal of an elementary school near the unit told him that he saw a marked increase in concern for dental health among his children. This principal encourages his children to visit the clinic, and arranged for them to leave school and walk there. He says he feels strongly that healthy children are happier in school, and he is grateful for the services we provide for his children. Another school system is bussing children from a rural school for treatment, and they had all but given up on getting these children the care they need. The Winooski unit is blessed with a remarkably enthusiastic and capable staff who are dedicated to the work they are doing in this community. We hope you will visit someday when you are in the area. You would be proud of what that trailer in the parking lot has grown to!

In Barre, the unit is located in the elementary school at St. Monica's Church. Recently, Vermont Dental Care worked with the Regional Medical Program to create the Washington County Dental Health Program which will provide dental care for adults in the area. At Vermont Dental Care we treat children exclusively, but we are acutely aware of the needs of their parents. When this program was proposed, we felt we could lend meaningful support and we attended every meeting until the program was finalized and the director hired.

In Rutland, Dr. Kemnitzer continues to serve the Vermont Achievement Center and surrounding communities. He recently received $4,000 in revenue sharing money to replace his personal equipment which was being used in our unit. This unit's production, thanks to the experience and commitment of Dr. Kemnitzer, is the mainstay of Vermont Dental Care. His support of our work with low income children and the generous contribution of his talent is truly a gift.

The Springfield unit is now housed in the Visiting Nurses complex. Vermont Dental Care has been asked to provide services to the families enrolled in the Children and Youth Program, a program which Vermont Dental Care serves in Winooski also. An incident which occurred in Springfield points out the unique qualities of our dentists who come to work with us at salaries far below what they could command in the private sector. Dr. Bosco, upon first visiting the office he was to work in, decided his patients would enjoy a view of the river which was on the other side of the wall of his operatory. At his personal expense, he had a large window installed, and he feels the rushing waters help his children to relax and feel more comfortable in the chair.

In August of this past year, the Bennington unit opened full-time in the Bennington Elementary School. Amidst hostility and confusion, our staff steadily won the confidence of the community and is seeing a full patient load regularly. Two unemployed, unskilled women were hired and trained to assist the dentist and manage the office. They are now working like old pros.

The Bethel unit, which was located in Father Rouelle's parlor and kitchen, was given space in the Gifford Memorial Hospital when Forrest moved to Windsor. An interesting program was begun here which we hope to duplicate in other clinics. Local schools bus children to the clinic for the day, and a combination dental health educator and tutor works with the children while they are in the clinic. The children like Sherry so much that they compete with each other for the priviledge of going to the dentist! Children have even been known to sneak on the bus when it's not their turn, and you can be sure we find chair time for those little rascals!

In short, we've had a successful and growthful year. We've tried some experiments that didn't live up to our hopes, like our involvement in the North End food stamp center; but the contributions which our UYA student made to that center more than justify our efforts there. We overcame a financial crisis, and although we'll never have the kind of security we'd like, there always seems to be a way to make good the risks we take. Today Kendra called from Springfield and said, "Last year we treated the Blackburn children with Cavendish funds. Now these children are due to be recalled, and they still can't pay their bill." There are eight chilren in this family, and we will treat them. The fund enrolled

the children in our program, and they will be recalled regularly regardless of the family's ability to pay. Similarly, all the children being treated with Revenue Sharing funds will be permanently enrolled in our program. So the gift of funds to pay for children's treatment today is itself a risk since we will have to raise additional funds to continue their treatment in the future.

Looking to the future, our current plan is to combine the old mobile team system with the present permanent office. It is our hope that we can have one self-contained mobile unit which would circle the existing units, touching base with the communities. We would examine and treat children who are not receiving care, and recall the children to the main units. We dare to make these plans in the midst of a precarious financial situation because we must. And we are strengthened in our resolve because of the firm support of those who have helped us in the past and continue to watch our program with pride and interest. The assistance of the Vermont Conference has been significant, and we are grateful.

Sincerely,

LEANORA M. SEFERT.

VERMONT DENTAL CARE PROGRAM, INC., BURLINGTON, VT.

Income	Number in family						
	1	2	3	4	5	6	7 or more
Level:							
$15,000 or more per year—$288 or more per week	6	6	6	6	6	6	6
$10,000 to $15,000 per year—$192 to $288 per week	6	6	6	6	6	6	5
$9,000 to $10,000 per year—$173 to $192 per week	6	6	6	6	4	4	3
$8,000 to $9,000 per year—$154 to $173 per week	6	6	6	6	4	4	3
$7,000 to $8,000 per year—$135 to $154 per week	6	6	6	6	4	4	1
$6,500 to $7,000 per year—$125 to $135 per week	6	5	4	4	2	2	1
$6,000 to $6,500 per year—$115 to $125 per week	6	5	4	4	2	1	1
$5,000 to $6,000 per year—$96 to $115 per week	5	4	3	2	1	1	1
$4,700 to $5,000 per year—$90 to $96 per week	4	3	2	1	1	1	1
$4,000 to $4,700 per year—$77 to $90 per week	4	3	2	1	1	1	1
$3,500 to $4,000 per year—$67 to $77 per week	3	2	1	1	1	1	1
$3,000 to $3,500 per year—$58 to $67 per week	3	1	1	1	1	1	1
$2,600 to $3,000 per year—$50 to $58 per week	2	1	1	1	1	1	1
$2,000 to $2,600 per year—$38 to $50 per week	1	1	1	1	1	1	1
Less than $2,000 per year—less than $38 per week	1	1	1	1	1	1	1

Level—NC–1—50 percent—4.
15 percent—2—75 percent—5.
25 percent—3—Fee—6.

STATEMENT OF THOMAS C. DAVIS, SECRETARY, AGENCY OF HUMAN SERVICES, STATE OF VERMONT

The Vermont Dental Care Program, Inc. was conceived and established while I was Director of the Vermont State Office of Economic Opportunity.

Since that time, I have followed its development closely. It has grown from two small dental units to a state-wide program of six units, providing comprehensive dental care to over 5,000 children.

As dental care is one of the largest un-met health needs in the state, I support the work of this program. The Vermont Dental Care Program, Inc. is providing a service to the low-income community that is greatly needed and, I might add, greatly appreciated by many Vermonters.

STATEMENT OF BOSHA GORDON, VERMONT WOMEN'S HEALTH CENTER, BURLINGTON, VT.

The following is an account of the creation and evolution of the Vermont Women's Health Center.

During the spring of 1972, in a case referred to as Jacqueline R vs. The State of Vermont, the Vermont Supreme Court dismissed the archaic law

that made abortion illegal in the state. Simply, the old law was worded so that it was legal for a woman to obtain an abortion, but illegal for a doctor to perform one. The court made this decision late enough in the spring so that the State Legislature did not have time to pass a new law. Therefore, until January of 1973, when the legislature reconvened, Vermont was without any law ruling on abortion.

Various groups around the Burlington area realized the implication of having no abortion legislation and began immediate attempts to make abortions available. Women's groups, Zero Population Growth, Planned Parenthood, the Burlington Free Clinic, concerned individuals, and local doctors all started thinking and planning. In June 1972 the first large meeting was held and approximately 250 people attended. A board of directors was elected and working committees were established. In the summer of 1972 spectacular efforts were made to provide the basic needs—money, a facility, equipment, doctors, medical policies, and a staff. Great efforts were made to resolve political differences. A loan was obtained through a local bank, co-signed by several prominent committed women from the community.

A major decision reached at this time was that the VWHC would not be exclusively an abortion clinic. It would provide as broad a range of gynecological care as possible within a clinic setting. This was and is the basic philosophy of the clinic.

Prior to opening, the original staff of 8 women worked together with help from nurses, doctors, abortion counselors, and other women with related experiences to learn as much as they could about the basics of abortion techniques, gyn problems, emergency procedures, sterile techniques, venereal disease and contraception. They worked out the details of scheduling, patient flow, and charges. They discussed the political role of a feminist oriented clinic and how to make policies consistent with that orientation.

On September 1, 1972 the VWHC officially opened in Colchester, Vermont. In the first couple months, the staff was overwhelmed by the demand for abortions. The women were working nine and ten hour days, continually reworking the details of efficiency in relationship to maximum patient care.

At this time, some opposition was growing from the predominately Catholic community of Colchester. Debates were avoided, as the clinic felt a defensive position was unnecessary and the existence of the clinic would speak for itself. The publicity the clinic received, though often as a result of opposition, helped to make the existence of the clinic well-know. By the end of October, the selectmen of the town of Colchester decided a public hearing was necessary to air feelings. Approximately one thousand people attended this hearing in November. Many people made presentations, offered opinions, asked questions, and vented feelings. It was clear that little could be resolved in such a setting. The selectmen decided to write a referendum to be included in the upcoming local election. Partly due to the wording of the referendum, largely due to the efforts of the Women's Political Caucus, and despite efforts to put a limited residency requirement on the issue, the health center narrowly won the ballot. The legality and effectiveness of the referendum if lost was undetermined. Since that time, very little effort has been made to oppose the existence of the clinic. The Supreme Court decision of January 1973 regarding abortions clarified the legality of the clinic and greatly diminished efforts of state politicians to sponsor antiabortion legislation. Various anti-abortion legislation has been introduced each year in the Vermont legislature, but none has ever passed the house.

In the first year of existence, the demand for abortions precluded the establishment of other gyn services. But as laws changed to legalize abortions in other states the demand became less overwhelming. The increased efficiency of the staff also helped to handle the demand for abortions and they were able to offer more routine gyn care. In May 1973, the clinic sponsored a workshop to introduce the Early Uterine Evacuation abortion procedure (EUE) to New England. The services offered now included annual gyn exams, abortions by early uterine evacuation and vacuum aspiration, contraceptive education, diagnosis and treatment of problems related to women's reproductive systems (vaginitis, V.D., urinary tract infections, menstruation and menopause) prenatal and post-natal counseling, and sexuality information and counseling. The clinic has been a model for other women's clinics opening in New England. The staff is often asked to participate in health education and women's issues discussions and provide various mini-courses and discussions at local schools, women's organizations, low income groups and the University of Vermont.

The VWHC is organized as a collective, with no official director. At the original time of incorporation, a separate board of directors was established. The staff met weekly to make certain decisions about the day-to-day running of the clinic. The board and staff met together every two weeks to decide on basic policies and major decisions. This was very helpful in the beginning, as a broad range of experience and lots of energy and opinions were needed to formulate basic policies. By September 1974 the separate board of directors had become a technical legality. At the annual meeting they voted to dissolve themselves and the staff voted to become the board. All decisions made by the staff now became official decisions. The staff elects officers of the board, but these women have no special authority. Community input and patient participation is encouraged by asking for input and criticism.

The collective process was found to have certain advantages and certain disadvantages. The staff found that collective organization allowed them to voice opinions, suggestions, and criticism freely. Everyone developed a sense of shared responsibility for the total running of the clinic. Most staff women believed that collective organization was a good way of affirming the belief that women can work together and authority is not necessary to ensure responsibility. Yet individual abilities and various levels of involvement often made for differing interpretations of "shared responsibility". The staff found that a continuous reevaluation of the collective process was necessary. Specific problems encountered were those of inefficiency—or no one knowing exactly what her various responsibilities were. Also, the women dealing with the business and financial end of the clinic often tended to become polarized from the rest of the staff because of the nature of their work and the inability of the staff to understand certain financial decisions. Also because all decisions are made collectively, the Wednesday morning staff meetings were often very long and exhausting. The staff found it very helpful to have a 2 day workshop in May 1974 with a women trained in group processes and decision making processes. This training helped make the meetings more efficient. In October 1974 the staff decided to revitalize standing committees. The committees now in operation are the Medical Advisory Committee, The Personnel & Training Committee, The Outreach Committee, and the Administrative and Finance Committee. Certain issues are referred directly to the committees which meet at scheduled times during the staff meetings. Recommendations from the committees are brought to the entire staff for final approval.

The philosophy of collectivity involves the idea that each staff member should ideally be trained to do any given task. In the day to day running, most staff members rotate positions of counselor, coordinator, and phone counselor on a three month basis. The training committee sets up programs for staff members to train for more specialized tasks such as lab work, business skills, and physician's assistant training programs. In September 1973, one staff woman began an official 2 year program as a physician's assistant training with the staff doctors. In January 1975 the staff granted a leave of absence to a staff woman to take an intensive six month physician's assistant program in California. The staff now has an overlapping schedule of training periods for several staff members to train as physician's assistants. Ideally, this orientation of medical care delivery helps to break down traditional roles and perceptions of doctors, reduces costs, and expands personalized quality medical care.

The staff has found it continuously necessary to re-evaluate priorities. They have been confronted by many priorities which can potentially interfere with each other. For instance, the priority of staff training could possibly interfere with the priority of efficient, low-cost, quality medical care. The staff has found it necessary to strive for a balance in priorities, yet always working within the limitations of clinic finances.

Clinic finances have been a concern since the clinic opened. The VWHC's major source of income is patient fees. Occasional small donations are given, but as yet the only major grant received was a $4,000 grant received in February 1975 to expand the physicians assistant training program. The clinic paid off the original loan within a year and has managed to pay staff and cover costs. The fee for abortions has basically carried the loss of income on other services. No one is entirely pleased with this relationship, and the staff has tried several ways to alter this situation. Twenty percent of the patients are covered under Medicaid. The clinic uses a graduated fee scale based on one's ability to pay and over half the patients seen are subsidized in some way by the clinic. The original cost for a vacuum aspiration was $175 and EUE's were originally $75. In October 1974 the staff decided to make one fee for pregnancy termination which would cover costs

and not discriminate against a woman who had a later rather than early unwanted pregnancy. Terminations now cost $135.00. Gyn prices were originally $10 for an annual exam, but were raised to $20 within a year. But the sliding fee scale still accommodates women unable to pay full fee.

The clinic has used volunteers in various capacities, often to alleviate the financial burdens. Volunteers were first used in the day to day running of the clinic in June 1973 when the staff expanded. About 5 volunteers and five paid women were added as equal members of the staff. By January 1974 the concept of full-time volunteers had been dropped. A program of part-time volunteers to do limited tasks such as medical assisting and recovery room staffing was developed. But within a year most of the volunteers had either ended their commitment, or wanted to train and expand their skills and be hired. The staff was feeling frustrated about the limitations imposed on volunteers and the obvious inconsistency with the policy of women being paid for their work. In December 1974 the center decided to end the use of volunteers in regular clinic functions. They made provisions which allowed women to train at the center for a certain time period in exchange for a certain time period of work. So far this policy has seemed to work well. The clinic has not completely solved the dilemma of involving all interested women while maintaining quality care and consistent information.

The staff of the health center has seemed to stabilize at about twenty persons, which includes approximately 14 counselors, 4 lab technicians, a business manager, a nurse practitioner, and two staff doctors. The backgrounds and ages of the staff women are varied. Salaries are ideally equal, however, everyone receives $4 per hour except the physicians who receive between $7 and $12 per hour. All new employees undergo a comprehensive training program designed according to the trainee's needs. The program usually includes counseling skills, medical information, and certain laboratory and medical skills. In addition, there is a continuing program of staff in-service training to keep up with advances in medicine and counseling, and to continue the clinic's involvement in the women's movement.

After almost two years of operation, the clinic in Colchester realized that more clinic space was needed. In September 1974, the clinic moved its location to downtown Burlington. A crew of women carpenters did the necessary renovations and the actual move went more smoothly than expected. The clinic is now open six days a week. Most staff persons work at least three days each week. The clinic space is used in the evenings by various community women's groups.

The women of the clinic are continually trying to determine the needs of Vermont women and working to meet those needs when feasible. It is a continuous challenge to offer quality, low-cost health care in an atmosphere of learning and trust.

STATEMENT OF DR. JAMES F. MADISON, M.D., TIMBERLANE MEDICAL CENTER, SOUTH BURLINGTON, VT.

I am writing to offer testimony for your up-coming hearing on Vermont rural health. Rather than discussing specific model systems, I would like to comment upon several peripheral factors which I feel are important.

There is a strong and encouraging change in goals among young physicians here at the University of Vermont as well as elsewhere in the country. We see a strong desire to train for provision of primary health care in general medicine or general pediatrics as opposed to past trends of entering careers in research or academic life. I am sure that much of this is due to an increased sense of social responsibility, resulting in a desire to practice on the front lines in medicine and to participate in community life, away from congestion of large metropolitan areas. This trend should make it easier to attract physicians and paramedical personnel to smaller communities.

It is impractical for our populace to expect each small village to have its own physician. High quality health care can be provided by groups of physicians and nurses in regional medical centers situated in medium-sized communities over the state with patients reaching these centers via private and public transportation plus community emergency evacuation crews. Current modes of transportation make it easy for patients to travel 20 to 40 minutes (not miles) to a nearby medical center. I am sure that many urbanities spend that much time to reach a physician just a few blocks from home. For emergency care, Vermont has a

superbly trained corps of community rescue crews with radio hook-ups to regional emergency rooms. We also have the ability to call on the air evacuation crew from Plattsburgh Air Force Base.

I am strongly committed to a system of private enterprise for establishment of medical facilities. Community or public subsidy for construction of treatment facilities may make it easy for young physicians to enter such practices. However, these systems make it all too easy for the physician to leave when he becomes disenchanted for he has no personal investment in the practice. Also, when government or a community has constructed a facility it may make unrealistic demands for service, leading to resentment on both sides of the fence.

I feel that there are several areas which Congress can investigate to improve medical care. One is the furtherance of training of ambulance crews. A second area is investigation of methods of public transportation using a minibus or limousine, offering transportation for low income patients in remote areas.

A very important area to be pursued is support for out-patient training of medical students rather than continuing with the past methods of all training being within a hospital situation. Physicians trained in hospitals tend to feel insecure when removed from their sophisticated facilities and quick consultation with colleagues. Therefore, they are reluctant to practice in smaller communities.

Finally, I feel it is important to actively seek medical students who come from rural communities, students who will feel comfortable with all segments of small rural life and whose wives share this feeling. Frequently, idealistic young medical families start off in a small town only to find that there are few people who share their views and interests or with whom they feel comfortable. They soon return to larger cities to practice. We have seen this happen in several communities in northeastern Vermont, notably Colebrook, New Hampshire, Island Pond and Lyndonville.

JAMES F. MADISON, M.D.
TIMBERLANE MEDICAL CENTER,
South Burlington, Vt., February 4, 1976.

Senator PATRICK J. LEAHY,
Box 2,
Burlington, Vt.

DEAR SENATOR LEAHY: I am enclosing an article taken from the current issue of the Journal of the American Medical Association as support for the thoughts suggested in my final paragraph of the letter dated January 14, 1976. This has to do with your upcoming hearings on Vermont rural health.

I think the data in the article speaks for itself and the conclusions mentioned in the "comment" section of the article certainly support my own feelings on the subject.

I regret that I will be unable to attend the hearings in person but hope that the information I have submitted will prove helpful.

Sincerely,

JAMES F. MADISON, M.D.

MEDICAL SCHOOL ADMISSIONS, SPECIALTY SELECTION, AND DISTRIBUTION OF PHYSICIANS

(By Sam Cullison, MD; Christopher Reid, PhD; Jack M. Colwill, MD)

This review of the University of Missouri-Columbia medical graduates, with similar data from two other studies, supports the thesis that hometown size and speciality choice are interrelated predictors of the community in which physicians practice. Physicians with nonmetropolitan backgrounds were two to three times as likely to select nonmetropolitan practice as physicians with urban backgrounds. Physicians entering family medicine were almost three times as likely to select nonmetropolitan practice as physicians in other primary-care specialties. Presence of both predictors (nonmetropolitan background and selection of family medicine) resulted in two thirds selecting nonmetropolitan practice, However, selection of family medicine by graduates with urban backgrounds or selection of other specialties by graduates with nonmetropolitan backgrounds did not appreciably increase the likelihood of nonmetropolitan practice. These data have implications for medical school admissions policy and curriculum.

During the past decade, a major national priority has been to increase the number of physicians practicing within the United States. In responding to this

priority, US medical schools increased their first-year classes by 60% between 1964 and 1973. At the same time, however, we continue to have major physician manpower shortages due to geographic and specialty maldistribution.

One measure of the physician shortage in rural areas demonstrates that, while 26% of the nation's population lives in nonmetropolitan counties (counties with no city having greater than 50,000 population), only 13% of the nation's physicians reside in these counties. In addition to having low physician-population ratios, these nonmetropolitan areas have physicians who are considerably older than physicians in the nation as a whole.

At least in some areas, geographic maldistribution is worsening. In Missouri during the seven-year period between 1965 and 1972, the total number of physicians decreased by 12% in 85 counties with populations less than 25,000, while population in these counties decreased by less than 0.5%. The number of physicians in the urban counties of Missouri during the same period increased by 10%, while population in these counties increased less than 1.5%.

In this communication, we discuss two factors that may have an impact on the likelihood that a physician will practice in a rural area: hometown size and specialty selection. The tendency for rural physicians to have a rural background has previously been noted in other regional and national studies. These studies, which have focused upon rural physicians alone, attempted to identify common characteristics of these physicians. Our study and two other unpublished studies assess the relative likelihood that physicians with rural or urban backgrounds will select a rural practice location. The tendency for family physicians to select a rural practice and for physicians in other specialities to seek urban practice has also been previously noted in the literature. However, the interrelationships of hometown size and specialty choice with the size of the county of practice have not been completely explored.

METHODS AND MATERIALS

In the summer of 1973, a questionnaire was mailed to the 1,146 four-year graduates of the University of Missouri-Columbia School of Medicine—a school that produced its first MD graduates in 1957. A review of the current activities of these physicians and the methods of the study are published elsewhere. In this study, data are drawn from the 472 respondents who are permanently situated in their professional roles throughout the United States. Almost all of these graduates were from the graduating classes between 1957 and 1968. They provided an overall 78% response to the questionnaire, with individual class-response rates varying from 65% to 88%. A review of nonrespondents by class revealed that the pattern of their state addresses was similar to that of the respondents.

Respondents to the questionnaire were asked to indicate the size of their hometown community when they lived there. These data were then compared to 1950 census figures to assure consistency. The size of the practice-county was determined using 1970 census data. Counties that are a part of larger metropolitan areas were included in that metropolitan area.

RESULTS

Hometown size and practice-county size.—Table 1 demonstrates a decided relationship between the size of the medical graduate's hometown and the size of the county in which he currently practices. Graduates from hometowns of less than 50,000 distributed themselves equally among the nonmetropolitan, small metropolitan, and large metropolitan counties, with approximately one third settling in each county classification. On the other hand, almost two thirds of the graduates who came from cities of greater than 500,000 population settled in large metropolitan counties, while only one in six settled in nonmetropolitan counties. Thus, the graduate who came from a town with a population of less than 50,000 was twice as likely to settle in a nonmetropolitan county as was the graduate who came from a community of greater than 500,000. Conversely, the graduate who came from a large city with a population greater than 500,000 was twice as likely to settle in a large metropolitan county as graduates from towns of less than 50,000.

Overall, as seen in Table 1, the net migration of Missouri graduates is toward metropolitan counties. The next portion of this communication demonstrates that this urban migration is associated with specialty selection.

Choice of specialty and practice—county size.—Striking differences are present in the geographic distribution of the various specialties, as is demonstrated in

Table 2. Fifty-five percent of Missouri graduates entering family medicine and 45% entering general surgery practice in non-metropolitan counties, but only 16% of graduates selecting other specialties practice in nonmetropolitan counties. Those choosing the primary-care specialties of pediatrics, obstetrics-gynecology, and internal medicine tended to select urban practice, with only 18% practicing in nonmetropolitan counties. The distribution of physicians in family medicine was significantly different from the distribution of physicians in the other primary-care specialties ($X'=35$; $P<.0001$), as well as from those choosing the nonprimary care specialties, with the exception of general surgery ($X'=56$; $P<.0001$).

TABLE 1.—RELATIONSHIP BETWEEN PHYSICIANS' HOMETOWN SIZE AND PRACTICE, COUNTY SIZE [1]

Size of hometown [2]	Number	Non-metropolitan county (percent)	Small metropolitan county (percent)	Large metropolitan county (percent)
<4,000	132	34	31	34
4,000 to 50,000	128	34	35	30
50,000 to 500,000	31	19	68	13
>500,000	162	16	21	63

[1] $X^2=61.66$: df=3: P <01.
X^2 (horizontal rows 1 and 2)=59; df=Z; P, not significant.
X^2 (horizontal rows 2, 3, and 4)=21 58; df=2; P<.01.
X^2 (horizontal rows 2 and 3)=11.02; df=2; p<.01.
X^2 (horizontal rows 3 and 4)=32.00; dt=2; P <.01.

[2] In describing county size, the standard metropolitan statistical areas (SMSA) concept was utilized. An SMSA is a county with a central city of greater than 50,000 population. We defined a large metropolitan county as an SMSA with a county population of greater than 500,000. A small metropolitan county is an SMSA with a county population less than 500,000. We defined a nonmetropolitan (rural) county as a non-SMSA. A non-SMSA is a county with no central city with greater than 50,000 population.

TABLE 2.—RELATIONSHIP BETWEEN PHYSICIANS' SPECIALTY AND PRACTICE LOCATION [1]

Specialty	Number	Non-metropolitan county (percent)	Small metropolitan county (percent)	Large metropolitan county (percent)
Family medicine	107	55	18	27
Internal medicine	60	18	30	52
Pediatrics	30	17	40	43
General surgery	29	45	24	31
Surgical subspecialties	44	9	32	59
Obstetrics-gynecology	34	18	35	44
Psychiatry	25	12	32	56
Anesthesiology	27	22	37	41
Pathology	22	18	45	38
Radiology	18	17	44	39
Dermatology	14	29	29	43
Other	45	9	29	62

[1] Percentage may not add to 100 percent due to rounding.

Hometown size, specialty choice, and practice-county size.—We have demonstrated an association between the size of the graduate's hometown and the size of the county of his practice. We have also demonstrated an association between the selection of either family medicine or general surgery and a nonmetropolitan county of practice.

Among the individuals who practice family medicine or general surgery, those originating from a rural hometown were more likely to select a nonmetropolitan practice. Thus, of those selecting family medicine, two of three from a rural background entered a nonmetropolitan practice, while only one in four family physicians from a metropolitan background selected a nonmetropolitan practice ($x^2=13.93$; df=1; $P<.01$). The same trend, although not significant statistically, is observed among those selecting general surgery ($x^2=1.89$; df=1; $P<.2$).

The trend of physicians in all other specialties, except family medicine and general surgery, was toward a metropolitan practice, regardless of hometown size. Indeed, a small hometown did not increase the likelihood of selecting nonmetropolitan practice for this group.

A study by the authors of a sample of 1,065 of the total 33,866 applicants to the entering medical class of 1973 through the American Medical College Application Service demonstrated that while 26% of the nation's population resides in nonmetropolitan counties, only 17% of entering students were from these counties. This lower percentage reflected a lower percentage of applicants from nonmetropolitan counties (17%) rather than a lower acceptance rate. In order to increase the percentage of nonmetropolitan students, medical schools should consider both increasing the percentage of acceptance of qualified rural students and implementing programs of recruitment of students from rural areas.

The second area of policy emphasis is within the area of medical school curricula. The expansion of programs in family medicine, at both the medical school and residency levels, will not only provide more primary care physicians but may also increase the proportion of physicians entering nonmetropolitan practice. Our data showed that the Missouri graduate entering family medicine was three times as likely to select nonmetropolitan practice as a physician entering the other primary care specialties of medicine, pediatrics, and obstetrics-gynecology. In a like manner, the Rand study found that the 1965 graduate entering family medicine was 2.4 times as likely to select a non-metropolitan county for practice as graduates who selected the other primary care specialities of internal medicine, pediatrics, and obstetrics-gynecology. An unpublished survey of 1974 graduates of family-medicine residencies compiled by Robert Graham, MD, indicated that 35% are practicing in communities of less than 15,000.

Since data in these studies suggest that hometown size and specialty choice may be interrelated determinants of practice-county size, emphasis solely on one of the areas of policy emphasis would not be expected to increase materially the likelihood of rural practice. In our study, if physicians came from a town of less than 50,000 population and did not enter family medicine or general surgery, only 17% practiced in nonmetropolitan counties. If, on the other hand, they entered family medicine but did not come from a town of less than 50,000, only 25% practiced in nonmetropolitan counties. If, however, the graduates both came from a nonmetropolitan county and entered family medicine, 66% practiced in a nonmetropolitan county.

Data from several studies now suggest that joint programs that increase the number of medical students from nonmetropolitan counties and increase opportunities for these students in family medicine can provide a major impact on the rural physician shortage.

STATEMENT OF MARY W. WATSON, R.N., DIRECTOR, CENTRAL VERMONT HOME HEALTH AGENCY, BARRE, VT.

The problems of getting adequate health care to residents of the rural areas has already been explored. At the present time, approximately 99% of the State of Vermont is covered by Home Health Agencies (Visiting Nurses). If the Home Health Agencies could have adequate financial backing, a more comprehensive service could be offered to residents in their homes.

The Medicare program is very limited and provides only reimbursement for concentrated or intermediate levels of care. Success of our efforts to rehabilitate a patient results in rejection of reimbursement because a patient is no longer homebound.

The custodial or maintenance level of care is not reimbursable even by the Vermont State Medicaid Program.

Monies received from the Appropriation Committee of the Legislature to support the Home Health Agencies have been used for the Medicaid Pilot Program, so statistics can prove there is a need for the chronically disabled and not homebound patient. After a year of these statistics it still is not one of the priority items of the Medicaid State Plan, so again the Agencies have given money so the Medicaid Expansion Program can continue to reimburse for services rendered for another year.

In Washington County, many clinics such as Glaucoma, Diabetes, Hypertension, and Flu Clinics are arranged by and assisted by the staff of the Home Health Agencies without any reimbursement for staff time.

Being Director of the Central Vermont Home Health Agencies located at 18 South Main Street in Barre, Vt., I would like to discuss this Agency.

The Agency covers 17 towns and cities in the Central Vermont area (parts of Washington and Orange Counties) of approximately 42,000 population.

Barre City
Montpelier
Northfield
Roxbury
Woodbury
Barre Town
Worcester
Middlesex
East Montpelier
Berlin
Plainfield
Marshfield
Cabot
Calais
Orange
Washington
Williamstown

The Agency provides the following services:
Nursing, Homemaker-Home Health Aide, Physical therapy, Speech therapy, and Occupuational therapy.

We have the following staff members:
10 Registered Nurses
4 Homemaker-Home Health Aides Contract with Central Vermont Hospital for therapeutic services
1 Bookkeeper
1 Part-time secretary
1 Full time Statistical Clerk and trained Home Health Aide

During 1975 the Agency has visited 620 patients (1.2% of the population) and have made 13,019 visits.

Financial support (reimbursement for visits):
Medicare and Medicaid Programs
Veterans Administration
Cancer Association (partial fee)
Private Insurance (percentage)
Medicaid Expansion Program
Contract with Council on Aging for Homemaker service for patients 60 years of age and over
Patient payments—sliding fee scale
Appropriations from the towns for charitable services rendered

The above shows our Agency accountable to many programs and organizations.

For this reason, we wish to keep you people, making decisions, informed of just what our Agency is doing in the rural areas. We aim to be visible and available in our communities.

STATEMENT OF MRS. LEWIS P. EVANS, CHAMPLAIN VALLEY INFORMATION SERVICE, BURLINGTON, VT.

I appreciate your giving me the opportunity to present a case to aid rural health care in Vermont at your up-coming hearings here with Senator Dick Clark.

My present occupation in the rural health care field is with the Champlain Valley Information Service, description of which is enclosed along with the latest Quarterly Report. This report, I believe will answer most of the questions as outlined in your letter of December 18.

Cost effectiveness is a bit hard to determine at present as the system has not as yet reached its full potential. There are now five centers located in Grand Isle, Franklin, Chittenden, Addison and Rutland Counties but the report enclosed only reflects Chittenden on a four months basis; Addison for one month as the rest of the counties were too newly organized to report.

The current sources of funding will give some idea of the ability of CVIS to attract & retain health providers, i.e. Social & Rehabilitative Services; Area Agency on Aging; Agency of Human Serices Title one; United Community Services—a good cross section of public and private agencies.

The Effort to Coordinate with other health providers is accomplished thru the "planner's requests" that come to the centers and are compiled at the Vermont Information & Referral Systems office. A sampling of these requests are listed in the last pages of the quarterly report. NC meaning "no charge" but the office is now proficient enough to charge $7.50/hr. for these requests.

Quality Control is being worked out presently thru the use of the quarterly report and review of same with a number of the high "users" of the service. And further, the Systems office has just been offered the services of a bio-

statistician graduate student at the university who will look at the data gathering, management and use of and advise on quality control.

Do hope that this service will be able to present at your February hearings.

CHAMPLAIN VALLEY INFORMATION SERVICE, 59 PEARL STREET, BURLINGTON, VT.

1. PROBLEM OR CONDITION

Existing health and social services have the capacity for improving the quality of life of individuals who are in need.

Many individuals in need of health and social services do not use them. A major reason individuals in need do not use existing health and social services is that there are barriers that prevent them from reaching such services. These barriers include:

(*a*) Lack of knowledge about services;

(*b*) Negative attitudes about services; and

(*c*) Concrete obstacles in getting to services such as: ill health; lack of transportation; lack of financial resources; and lack of interpersonal skills to deal with service personnel.

It is possible to identify the specific kinds of data that are relevant to human service planners. The recommendations of planners have a significant impact on decision-makers involved in developing service programs. Planners need feedback about the day-to-day human service needs of the community; Planners need to know what programs exist in the community.

2. OBJECTIVES

To increase the access to and the use of health and social services for users and potential users of the Information and Referral Center.

To provide reports about services and service needs that enable service planners to make more rational recommendations about policy and changes in programs.

3. OPERATE THE INFORMATION AND REFERRAL CENTER

(*a*) Provide accurate, up-to-date information about community health and social services;

(*b*) Provide referrals to facilities for those callers who need them;

(*c*) Provide follow-up services to those callers, who, in the opinion of the I & R specialist, have need of this service;

(*d*) Initiate escort services to those who wish to receive escort; these services consist of: 1. Transportation to facilities (limited); 2. A companion to help negotiate initial contact with facilities.

To collect data on callers' needs and demographic characteristics.

To collect data on callers' service experience, including that of the I & R center.

STATEMENT OF BERNARD SEAN GRESH, ED.D., DIRECTOR, CONTINUING EDUCATION RECOGNITION PROGRAM, VERMONT STATE NURSES ASSOCIATION, BURLINGTON, VT.

CONTINUING EDUCATION OF HEALTH CARE PERSONNEL AND PRIMARY HEALTH CARE IN VERMONT

An effective primary health care delivery system is dependent upon health care personnel who have the appropriate training and who keep up-to-date regarding the most current and effective developments in their respective fields. Unless health care personnel have ready access to quality inservice and continuing education programs, the patients they serve will suffer.

The following statement is a brief summary of how the Vermont State Nurses Association, (1) is addressing the question of improving the quality of continuing education programs for nurses and promoting an increase in the number and accessibility of programs for the approximately 3,000 employed and 1,300 unemployed registered nurses in the State of Vermont, and (2) is working toward the development of a state-wide model for addressing the continuing education and training needs of all health care personnel within Vermont.

IDENTIFYING THE PROBLEM

Responding to the urgent need of identifying and addressing the continuing education needs of nurses in Vermont, an ad hoc committee representing the University of Vermont's Continuing Education for Health Sciences and the Vermont State Nurses Association was formed in 1973. That committee surveyed Vermont's registered nurses, identified many pressing continuing education needs, and used the results of their comprehensive survey to design and implement the Vermont State Nurses Association Continuing Education Recognition Program.

Some of the most important findings of that survey showed that of the 547 nurses who responded: (1) six out of every ten stated that their needs in continuing education were not being met; (2) one out of every two said they would attend more programs if credit were offered; (2) and eight to nine out of every ten nurses indicated they saw the need for ongoing learning experiences in order to insure safe practice, enhance professional growth, update previous knowledge, and acquire greater depth of value; and (4) seven out of ten said they preferred education programs with other health professionals or with just nurses.

VERMONT STATE NURSES ASSOCIATION PROGRAM IN CONTINUING EDUCATION

The Vermont State Nurses Association Continuing Education Recognition Program was begun in January, 1974. Its purpose was to promote the development and implementation of continuing education programs for nurses and to serve as a mechanism for approving and recording programs for all the nurses within the State of Vermont. In 1975, the Health Resources Development (Regional Medical Program) awarded the Vermont State Nurses Association a one-year grant (from July 1, 1975 to June 30, 1976) to coordinate and administer the Continuing Education Recognition Program, to work with directors of inservice education programs throughout the state in improving their educational programs, to educate nurse consumers about the recognition program, to set up a communication link informing nurses about continuing education programs available to them in Vermont and the surrounding areas, to collect and interpret data on the continuing education needs of nurses and the resources available to meet those needs, to evaluate the entire Continuing Education Recognition Program process, to recommend a Vermont State Nurses Association organization structure for the continuation of the program, and establish a demonstration project to work with nurses in a particular region to identify their educational needs and the resources available to them, and to arrange for programs to meet those needs.

As of this date, the grant is in its seventh month and the objectives outlined above are well on the way to being realized:

(1) Consultations have been made with directors of inservice education programs individually or through group meetings (two workshops on objectives and evaluation of programs, for example, will be offered in January and March for the Vermont Inservice and Continuing Education Group).

(2) More than 500 nurses have been informed about the Continuing Education Recognition Program through various group meetings throughout the state.

(3) More than 5,000 nurses registered in Vermont have received copies of the Newsletter for Continuing Education for Nurses.

(4) Assistance was offered the Vermont Board of Nursing in compiling the results of a continuing education questionnaire it distributed to over 5,000 nurses. (The Board of Nursing will issue the results of that important questionnaire within the next few months).

(5) The evaluation of the Continuing Education Recognition Program will take place during the next four months.

(6) The demonstration project was set up in the Springfield, Vermont region with an ad hoc group of nurses representing nursing homes, home health agencies, hospitals, industry, schools, and nurses currently not working; that group conducted a comprehensive survey of the continuing education needs of nurses in the Springfield area; the results of the questionnaire support the results of the 1973 study regarding nurses' interests and needs to keep up-to-date in order to serve their patients better—some examples of programs nurses expressed a strong interest in participating in are:

Pharmacological programs (five out of every ten nurses surveyed)

The legal aspects of nursing (six out of ten nurses)
Symptoms review: acute and chronic diseases and their management (seven out of ten nurses)
Anatomy and physiology (four out of ten nurses)
Basic understanding of EKG and laboratory findings (seven out of ten nurses)
Rehabilitation and Restorative Nursing care (five out of ten nurses)
Nurses practitioner program offered in the Springfield area (four out of ten nurses)

Based on the needs expressed in this survey, several programs are in the process of being planned to meet these needs, in cooperation with Vermont Community College, several health agencies, and the Vermont State Nurses Association.

CONTINUING EDUCATION NEEDS OF HEALTH CARE PERSONNEL

Meetings with several hundred nurses throughout Vermont and representatives from the University of Vermont, private and state colleges, hospitals, and various health agencies made it clearly evident that one of the most pressing needs in Vermont is the need for coordinated educational programs for all those working in the health care field. To improve the primary health care delivery system in Vermont, hospitals, home health agencies, nursing homes, mental health agencies, colleges, and other appropriate agencies must work cooperatively to promote and improve the continuing education, training, and re-training of all professional health care personnel.

To increase cooperation and bring Vermont's Health Care community together to address the continuing education needs of its personnel, the Vermont State Nurses Association has developed a model which it hopes to be able to begin implementing by September of 1976. The model's structure and objectives are summarized as follows:

The overall goal of the model for the Continuing Education for Health Care Personnel is to contibute to the improvement of the health care of Vermont residents. This can be brought about through the continuing education of health care personnel in the most current developments in their respective fields. The specific project model's objectives are:

(1) To expand the already existing demonstration project in the Springfield, Vermont area by establishing a local Council of Continuing Education for Health Care Personnel. The Council would consist of representatives of hospitals, nursing homes, home health agencies, schools, and other agencies which employ health care personnel. Its purpose would be to look collectively at the continuing education needs of health care personnel in the Springfield area and at the resources that are available to meet these needs; and, on the basis of collected information, to coordinate plans to meet those needs through various types of cooperative efforts (joint agency-sponsored programs, promotion of individual programs, a local newsletter sharing information about educational programs, etc., etc.).

(2) To establish a state-wide Council of Continuing Education for Health Care Personnel. Composed of representatives of hospitals, home health agencies, mental health agencies, colleges, nursing homes, those working in virtually every field of health care (dentistry, medicine, etc.), and knowledgeable consumers, the Council would explore the state-wide needs of their responsive groups and work together in planning to meet those needs. One of the Council's functions will be to oversee the progress of the demonstration project and to plan for its development (replication) in other selected areas throughout the State.

(3) To develop and operate a Clearinghouse for information about continuing education for health care personnel in Vermont and the surrounding regions. A regularly published newsletter to all interested parties would then serve to disseminate this information. The newsletter would be modeled on the Vermont State Nurses Association's Newsletter for Continuing Education for Nurses which has met with a great deal of success.

(4) To conduct several training workshops for directors of educational programs aimed at health care personnel (on objectives, evaluating programs, etc.); and, when the demonstration project is in full operation, to conduct several half-day workshops on the project for those in other regions within the State. The purpose of these workshops will be to promote the development of the Springfield model in other regions.

The Vermont State Nurses Association's model for Continuing Education for Health Care Personnel, it is hoped, will meet a critical need in Vermont. The

model grew out of the Vermont State Nurses Association's experience in working in the area of continuing education for nurses.

Based on this experience, the larger model is expected to bring together hospitals, mental health agencies, schools, colleges, and other institutions and agencies to address the continuing education needs of health care personnel. It is hoped that this model could be duplicated in other regions throughout the country, especially rural regions with similar problems and challenges to those of Vermont.

STATEMENT OF MARY BATCHELDER, LAMOILLE FAMILY CENTER, MORRISVILLE, VT.

The Lamoille Family Center has submitted a proposal to the Regional Medical Program in Burlington, Vermont.

Although Lamoille County is fortunate in having adequate mental health, social service, and medical facilities, these services tend to operate around crisis-oriented or acute situations. The group of interested people who have planned and drafted this proposal began discussing a family center concept informally this spring and came to realize that the acute orientation of local health and social services made it difficult for area residents to receive education and assistance in preventive health measures.

Our concern for the gaps in local health education and family assistance services led us to contact a number of professionals from area health care and social service organizations. Preliminary discussions with these individuals showed enthusiastic agreement with the need for preventive educational activities in all fields related to child care and family interactions. For the most part, area professionals viewed the proposed family center as a useful extension of the services they are able to provide. Their interest and encouragement allowed us to develop the family center idea into the project described in the proposal.

The Center would provide Lamoille County parents wtih a variety of educational activities designed to help them understand the physical and emotional needs of their children and learn ways to improve the adult-child relationship. Planned activities include such as the following: classes on prepared childbirth, family nutrition, parent effectiveness techniques, and communications skills, and support groups for parents with special problems.

The Center would serve towns in Lamoille County as well as Hardwick, Greensboro, and Craftsbury. In Lamoille County there are 1,861 families with children under the age of 18. That represents 84% of the families in the county.

The Center is in the process of arranging specific points of cooperation with the following agencies:

Area ambulance groups
Community Action Center
Community College of Vermont
Copley Hospital
DIAL
Lamoille Area Health Council
Lamoille County Extension Service
Lamoille County Mental Health
Lamoille Home Health
Planned Parenthood
Public Health Nurses
Pediatricians and other area physicians
Social and Rehabilitation Services
Local Public Schools

Our objective is to develop within families an understanding of individual health needs and to increase awareness of resources available to meet these needs. We know that a public well-informed about health care is less likely to use health care resources unnecessarily or inappropriately and, by concentrating upon preventive health education, we hope to reduce the inappropriate on avoidable use of health care facilities.

The Family Center's educational activities, support groups, and referral system will be designed and operated in ways that will make the best use of resources now existing in the Lamoille area; we will work towards facilitating and enlarging upon these resources rather than seek to create new resources.

If you need additional information please let me know.

STATEMENT OF DR. JEROLD F. LUCEY, M.D., VERMONT/NEW HAMPSHIRE REGIONAL PERINATAL PROGRAM, DEPARTMENT OF PEDIATRICS, UNIVERSITY OF VERMONT, BURLINGTON, VT. AND DEPARTMENT OF MATERNAL/CHILD HEALTH, DARTMOUTH MEDICAL SCHOOL, HANOVER, N.H.

I am writing in response to your newsletter on the subject of rural health care delivery. As you may remember from previous correspondence the Vt/NH Regional High Risk Maternal and Infant Care Project has been funded by a contract from the National Heart and Lung Institute for the period July 1, 1975–June 30, 1978. This cooperative project between rural medical schools in different states is unique Our goal is to reduce the infant mortality rates in these two states to the point where they are the safest places in the United States in which to be born. Later I think we could and should become the safest place in the world! I believe that we can achieve this goal because we have a fairly healthy population, fine hospitals and a large number of cooperative physicians. We have some preliminary evidence (see enclosures) indicating that we can achieve this goal. We have been in operation for 3 years. I certainly do not want to claim that our program is solely responsible for the favorable trends one sees in the infant mortality rates but I do believe that we are an important contributor to this improvement. I'd estimate that our educational program could be run on a yearly budget in Vermont of less than $100,000. This would pay for the salaries of 1½ physicians, 2 nurses, 1 secretary and an infant transportation service.

VERMONT/NEW HAMPSHIRE REGIONAL PERINATAL PROGRAM,
DEPARTMENT OF MATERNAL/CHILD HEALTH,
DARTMOUTH MEDICAL SCHOOL,
Hanover, N.H, January 16, 1976.

Senator PATRICK LEAHY,
Burlington, Vt.

DEAR SENATOR LEAHY: I am enclosing a brief description of our program along with some figures and tables which support our belief that what we are doing is beneficial. I think Vermont is in a unique position to really lead in this area and to do this with a relatively small yearly investment of health dollars.

I am bewildered by who to turn to for support, when our present research funds run out in 1978.

I would appreciate any suggestions you may have as to the most appropriate source for future funding.

Sincerely yours,

JEROLD F. LUCEY, M.D.

THE GOALS

The goal of our program is to make Vermont and New Hampshire the safest places in the world in which to be born. We believe that this can be accomplished within the next 5 years. These two rural states have a reasonably healthy population and a large number of people interested in medical care who are willing to work together. If an educational system is to be effective it must be wanted, easy to participate in, and of proven value. Our program satisfies the first two of these requirements. We are gathering data to support the third. Our reasons for believing that the regionalization of perinatal care is needed are summarized in the attached article (1).

THE PROGRAM

The program began in 1972. At the present time (January 1976) it consists of the following elements:

1. *Regional high risk maternal and infant care centers.*—These have been established in Burlington, Vermont and Hanover, New Hampshire.

These centers are staffed by University Personnel especially trained and interested in perinatal care. They are equipped to offer total care for the sickest of mothers and infants. They teach and set an example of the finest of patient care. They have undertaken the added responsibility of seeing to it that all physicians, nurses, and hospital administrators know of their capabilities. They are to be responsible for introducing new diagnostic and therapeutic techniques into the region. They work with all the other hospital perinatal groups helping them develop to their maximum capabilities and to insure that they are kept continuously informed of important new advances.

This can only be accomplished in an atmosphere of free communication, mutual respect and trust. This atmosphere exists in most of Vermont and in

many parts of New Hampshire. This cooperative spirit is being developed through the following program elements.

2. *Site team visits.*—A team consisting of a pediatrician, obstetrician, nurse, and hospital administrator visited all hospitals. A report was sent to each hospital in which we tried to judge its strengths and weaknesses. Help was offered to those interested in improving their services. Perinatal teams were formed in each hospital. These groups of nurses and physicians constitute our educational audience. (See Table II) They have agreed to work cooperatively with us. (See Letter to Hospitals.)

3. *Infant transport ambulance service.*—This service, which is available to all Vermont and nearby New Hampshire and New York residents, is staffed by the unpaid volunteers of the St. Michael's College Ambulance Group. It assures the rapid availability of our services to all hospitals in our region.

We also have helicopter transport facilities available via the Plattsburgh AFB S.A.C. Command (M.A.S.T.).

4. *Regional nursing and physician conferences.*—We hold five teaching conferences a year in our care area. (See map.) These are one day each and are specifically designed to improve patient care. The topics are jointly chosen to insure their usefulness. These conferences were attended by over 700 nurses and physicians in 1974 and 1975.

5. *Physicians conference.*—Once a year, a 2-day conference is held. This is designed to introduce new techniques to the region, to inform all physicians and nurses as to what is currently being done at the centers, and what our plans are for the next year.

The conference was attended by over 275 nurses & physicians in 1974 and 1975.

6. *Interactive television.*—This is used by the two hospital centers for conferences and teaching sessions. (See map.)

7. *Library reprint services.*—We have established small libraries in all nurseries and obstetrical services. These contain recent articles on perinatal subjects. We keep these up to date by mailing new articles of interest once or twice a year. A similar library service is being supplied to the Vt. Public Health Nurses by the Vermont State Health Department.

8. *Transport conferences.*—These are a unique feature of our program. Traditionally teaching hospitals staffs have gossipped about or criticized patient care of "outside" hospitals in a non-productive way. Transport conferences are held at the small hospital. All management deficiencies in patient care are specifically discussed. All members of both perinatal groups are present allowing opportunity for mutual discussion and criticism. A control study is in progress to test the effectiveness of this program. These conferences are held at each local hospital 2 or 3 times a year. They are prepared by our perinatal education team (Pediatrician, Obstetrician, House Officer and Nurse Clinician). This constitutes a most exacting peer review system. It is a strong impetus to learning and improvement of patient care by both groups.

Area and number of patients served

Our services are available to all 18,000 mothers and their infants born each year in the two-state area. The ICN in Burlington admits 350 infants each year and Hanover admits 250. Our estimates indicate that these numbers are close to the theoretical ideal. We believe we are seeing nearly all infants who require our services. Further growth of our nurseries will not be required. We do anticipate changes in the number of high risk mothers being seen at each center.

Scope of care

These intensive care nurseries are equipped to care for the sickest of infants. They are staffed by specially trained nurses. A ratio of one nurse for each two or three infants is maintained. The obstetrical units at both centers are equipped to carefully monitor during labor, all high risk mothers. One obstetrician at each center is specifically dedicated and trained in this specialty. The equipment needed for monitoring has been purchased by the hospitals.

Data on cost effectiveness

There are no budget figures by which one can now document the "cost effectiveness" of our efforts.

We do have evidence indicating that both nurseries have significantly increased the survival rate of small, prematurely born infants under their care. We are proud of our survival figures, as they are better than many other intensive care nurseries. These are summarized in Table I. There are several studies indicating that infants cared for in similar units have less brain damage than

occurred in previous years. A conservative estimate is that brain damage has been decreased by 50% in the infants of over 1200 grams birth weight.

We also have evidence indicating that the states of Vermont and New Hampshire have improved their relative standing in mortality statistics as compared to other states in the last five years. In 1974 (latest year for which national figures are available) these two states ranked first and third in having the lowest infant mortality rate in the U.S.A. This represents a considerable improvement over their previous ranking. (Figure 1).

We do not wish to claim all the credit for these improvements as being due to our centers. They are due to the collective efforts of parents, nurses and doctors in every hospital in the state. We do believe our program has played an important role in this progress and that the program is essential in enabling these states to maintain their favorable position. If one examines the graphs and tables we have presented they indicate we are doing a "better" job than the rest of the United States (Figure 2). We have a better ranking and have shown more improvement than other New England States which do not have coordinated state programs. We believe we can continue to improve and we see no reason why our region cannot have the lowest infant mortality rate in the world.

The differences in current infant death rates may appear to be small. They are if you regard them as only statistics and do not think of them in terms of human lives. If we convert these numbers into lives we could claim that a total of 120 infant's lives may have been saved in the two-state area in 1974.[1]

Vermont

Births in Vermont in 1974=6,814×5.8=39.5[2]

New Hampshire

Births in New Hampshire in 1974=11,310×7.3=82.5.[3]

What are these lives worth?

An equally important benefit of our care, but one which will take several years to document, is our belief that we are decreasing the incidence of brain damaged, cerebral palsied, handicapped individuals. If this is true, the cost benefit ratio of our care to society is very great. The special schooling, custodial, medical and dental care required to support a single severely handicapped individual is in the range of $7,000–12,000 a year. These dollar costs to society, if continued for 30–40 years, mean that such an individual costs society about a half a million dollars. The costs in terms of human misery are incalculable. We believe that we can prevent a significant number of tragedies each year. The dollar investment required is not great, the potential benefits are.

Sources of current funds

This program is tentatively funded for the period of July 1, 1975 to June 30, 1978 by a contract from the National Heart and Lung Institute for $600,000.

We have received an additional $5,000 of support from the Mead Johnson Company for 1976.

The University of Vermont Medical School and the Dartmouth Medical School are subsidizing the program by their willingness to hire physicians specifically for this project. The Medical Center of Vermont and the Mary Hitchcock Hospital have been most cooperative, purchasing necessary equipment and renovating space for our needs.

Some conference expenses are partially defrayed by the attendance fees charged physicians and nurses.

The Vermont State Health Department provides funds for a full-time nurse and social worker assigned to the project. They have also supplied statistical help, as has the Cooperative Health Information Center of Vermont, Inc. (C.H.I.C.).

---

[1] To calculate the number of infant lives possibly saved in 1974 we did the following [vital statistics rates of the United States, volume 2, part B, Mortality Tables]:

National infant mortality per 1,000 live births	17.7
Vermont infant mortality per 1,000 live births	11.9
	5.8
National infant mortality per 1,000 live births	17.7
New Hampshire infant mortality per 1,000 live births	10.4
	7.3

[2] 39.5 infants alive in Vermont who statistically may have died if born elsewhere in the United States of America.

[3] 82.5 infants alive in New Hampshire who statistically may have died if born elsewhere in the United States of America.

Ability to attract and retain health providers

We have had no difficulties in attracting nurses and physicians to participate in this program. Both nurseries have adequate nursery staff and waiting lists for nurses interested in working in the units.

One of the possible benefits of our program may be a change in the turnover rates of personnel working in smaller hospitals. Some younger nurses and physicians leave positions in smaller hospitals because of lack of intellectual stimuli. We believe our program supplies such stimuli and may actually decrease this turnover. It may also decrease the intellectual isolation so often cited by young physicians as a reason for avoiding practice in rural areas.

None of the progress we have made would have been possible without the cooperation of the nurses, physicians and hospitals throughout the state.

Efforts to coordinate with other health providers

We work in close cooperation with both state health departments. Our follow-up studies are done in cooperation with Dr. M. McKee of the Developmental Disabilities Unit of the Vermont State Health Department. We are members of the New England Regional Infant Cardiac Program. We have established close liaison with approximately 75% of hospitals in the two state area. We have made our program known to virtually every health agency or group in the area (See list). We are working with the VT C.H.I.C. to furnish accurate statistics on the results of this new perinatal health care to every hospital in the state.

We have the active cooperation and support of the Vermont State Medical Society through its Maternal and Child Welfare Committee. We will have a close liaison via Dr. J. Peabody with the Vermont Lung Center.

Our needs

This program is adequately supported until June 30, 1978. We believe that it will have demonstrated and documented its effectiveness by that time and it will no longer be "research". The question then will be how can it be supported? Our fears are that all parties will feel somebody else should do this.

The danger we face is that the support we need will not fall into a traditional budget category of the state, federal government or medical school. As an example, how many medical schools, nursing schools or health departments believe, or could in fact afford, to have a pediatrician (100%), an obstetrician (50%) and a nurse (100%) engaged in *on site* post graduate education even though they recognize this as a worthwhile educational service? I know of none.

Our estimated needs in Vermont are salary support for the following:

1 Full-time Pediatrician
1 Part-time Obstetrician
1 Full-time Nurse Coordinator
1 Secretary
Overhead costs (office, mailing, phone, etc.)

I estimate these expenses would amount to about $100,000 a year.

We believe Vermont and New Hampshire should take a leadership role in this area and set an example for the rest of America.

We are uniquely situated to accomplish this laudable goal. What we need is financial support beginning in 1978.

Why We Should Regionalize Perinatal Care

Considerable evidence now exists supporting the concept that the regionalization of perinatal or newborn intensive care centers is highly desirable. It is my hope that a brief review of data not summarized previously will provide interested physicians with support for the argument in favor of regionalization.

There is general agreement that such programs are worthwhile; although, because of their several different approaches, no specific therapy available in such centers can be singled out as the prime reason for their success in reducing perinatal mortality. Nevertheless, this success can presumably be attributed to increased cooperation with obstetrical departments, and to the constant availability of a larger number of trained personnel devoting full-time attention to the infant, newborn, and unborn.

In the ideal center, all "high-risk" mothers could be delivered after selection early in pregnancy for a carefully monitored labor. The high-risk infant would then be taken care of in the adajacent intensive care nursery by a staff of hospital based "perinatologists" (obstetrician, pediatrician, anesthesiologist, and special nurses). Logically, any full-time practitioners of this new specialty must be

hospital based. Group practices in some areas, already recognizing this need, are basing one of their interested members in the hospital.

As is true with all new concepts, regionalization of perinatal care presents problems. Concern has been expressed that the development of such centers might actually weaken obstetrical care in some areas. If smaller units should no longer tend to see as many high-risk cases, might they not therefore become progressively less adept at handling such emergencies? Screening programs at the present time can only be expected to identify approximately 50% of high-risk mothers. Will the other 50% actually receive less adequate care as a result of the migration of skilled personnel and services to centers no longer as geographically convenient? What will be the effect on the morale of physicians and patients in hospitals declared "noncenters," and are such centers really needed? Traditionally the public has assumed that the mere presence of an obstetrician or pediatrician in an area without special facilities will decrease perinatal mortality. This myth is no longer tenable, but it will not die easily. To add to uncertainties, proliferation of well-intentioned centers (through poor planning) has already caused wasteful reduplication in some urban areas.

These, and perhaps other problems, must be openly and objectively evaluated against the conservation of valuable manpower and funds and the prevention of destructive duplication which planned regionalization should provide. Fortunately, a special task force representing the American Medical Association, American Academy of Pediatrics, American Academy of Family Practice, and the American College Obstetricians and Gynecologists, created by the National Foundation, is already at work preparing guidelines for the regionalization of perinatal care and recommended standards for such centers, to be published in the fall of 1973. Even though several excellent review articles on the subject and some manuals with useful guidelines have already been published, this task force from national medical organizations should be of special aid to the concerned physicians who have felt powerless to evoke the necessary social, political, and economic changes necessary to create these centers. A well informed public can be a powerful, effective ally in the process, and help should be recruited by informing them of our problems and views.

Although effective arguments for such centers may not need repetition here, two important questions should be definitely answered. The first is, "Are such centers effective in lowering perinatal mortality rates?" As already noted, the answer is clearly yes, and it can be documented.

TABLE I

I. C. N. NEONATAL MORTALITY RATE

BIRTH WEIGHT & GEST. AGE	AVERAGE 1960 - 1970	VERMONT* 1975	NEW HAMPSHIRE** 1975
501 - 1000 (26 - 30 WKS.)	85 %	60 %	67 %
1000 - 1500 (30 - 34 WKS.)	37 %	15 %	28 %
1500 - 2000 (34 - 38 WKS.)	10 %	5 %	6 %
2000 - 2500 (38 - 42 WKS.)	2 %	13 %	3 %

* BASED ON 137 INFANTS LESS THAN 2500 GMS.

** BASED ON 103 INFANTS LESS THAN 2500 GMS.

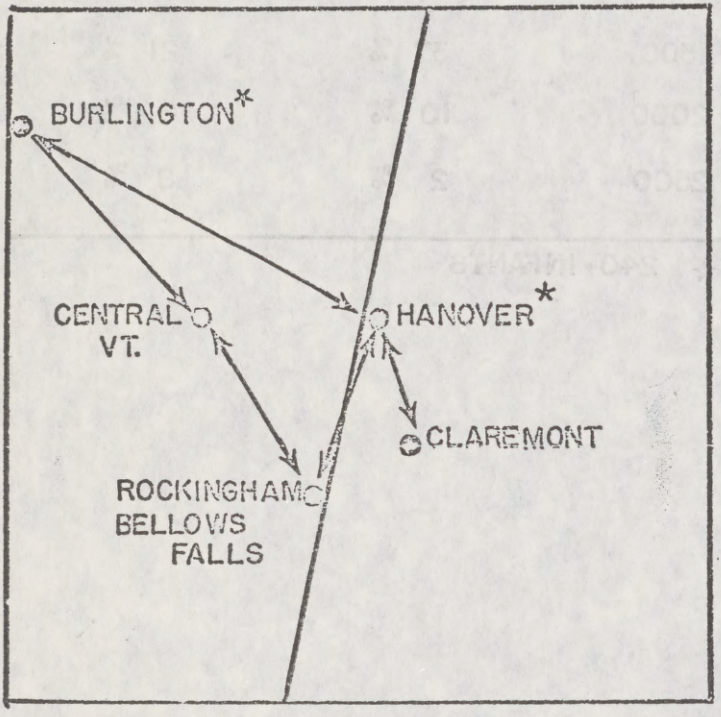
I.C.N. NEONATAL MORTALITY RATE

BIRTH WEIGHT	AVERAGE 1960-70	VT. & N.H. 1975 *
500 - 1000	85 %	63 %
1000 - 1500	37 %	21 %
1500 - 2000	10 %	6 %
2000 - 2500	2 %	8 %

* 240 INFANTS

TABLE II

INTERACTIVE TV NETWORK
VT. - N.H.

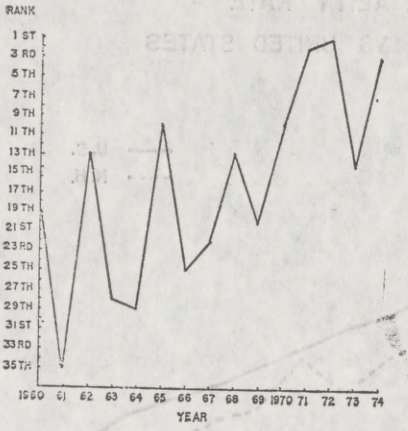


* FACILITIES ARE AVAILABLE FOR DIRECT TRANSMISSION FROM NURSERIES AND CLASSROOMS IN BURLINGTON AND HANOVER

THE INTERACTIVE TV NETWORK INCLUDES HOSPITALS WITH APPROXIMATELY 3400 BIRTHS AND 82 PHYSICIANS AND 180 NURSES OF OUR EDUCATIONAL AUDIENCE

FIGURE 1

RELATIVE STANDING OF VERMONT VS OTHER STATES FOR LOWEST INFANT MORTALITY RATE



RELATIVE STANDING OF NEW HAMPSHIRE VS OTHER STATES FOR LOWEST INFANT MORTALITY RATE

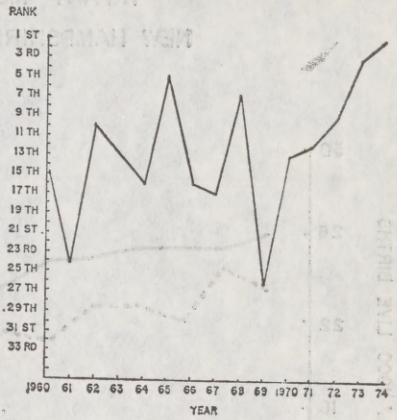
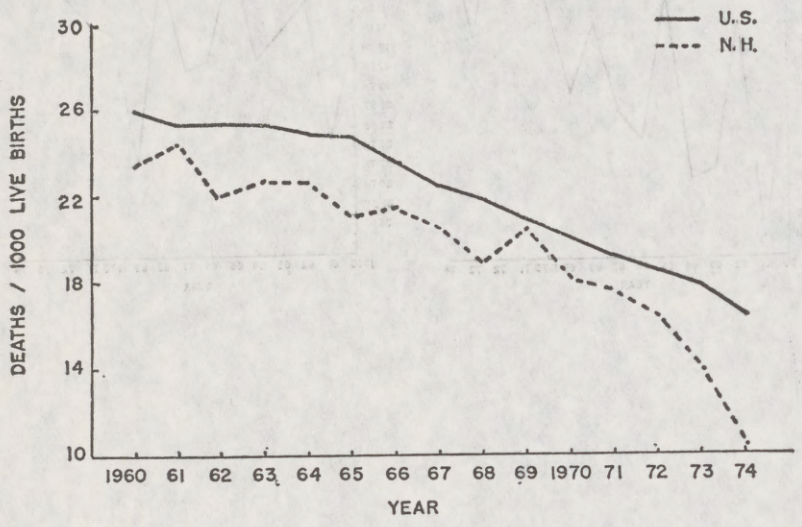


FIGURE 2

INFANT MORTALITY RATE

NEW HAMPSHIRE VS UNITED STATES



INFANT MORTALITY RATE

VERMONT VS UNITED STATES

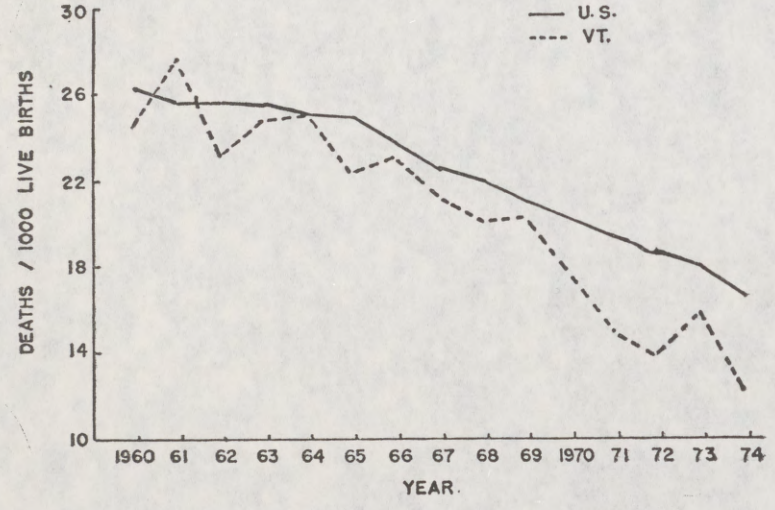
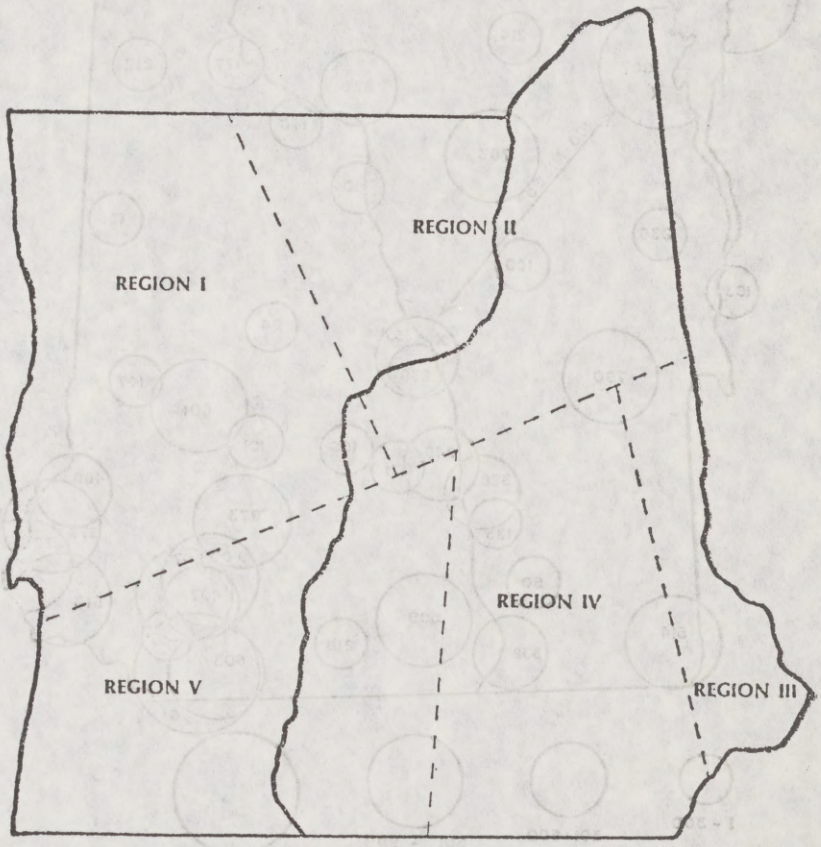


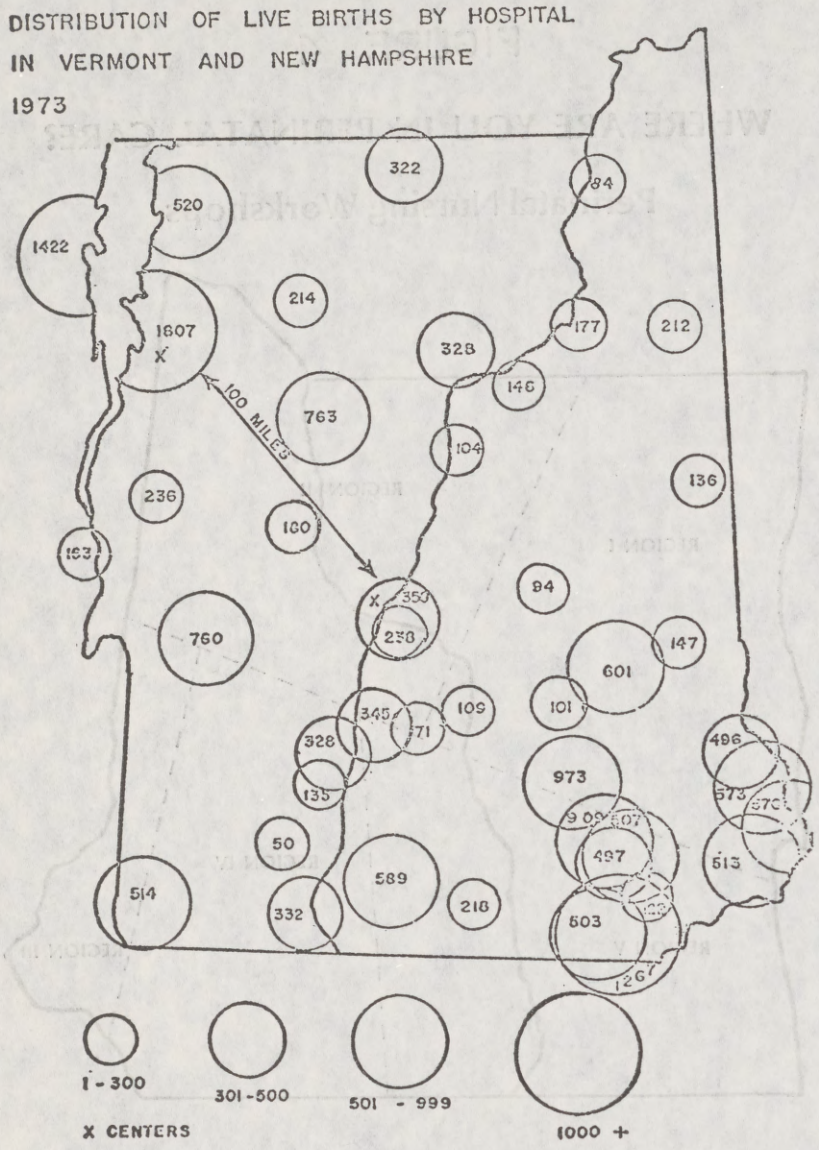
FIGURE 4

WHERE ARE YOU IN PERINATAL CARE?

Perinatal Nursing Workshops



sponsored by
Northern New England Regional Medical Program
University of Vermont, Dept. of Pediatrics
Dartmouth Medical School, Dept. of Maternal and Child Health



WHAT MEMBERSHIP IN THE VT/NH PERINATAL PROGRAM MEANS

The goal

Our goal is to make Vermont and New Hampshire the safest places in the U.S.A. in which to be born. We believe this to be an achievable goal within three years.

Your responsibilities

1. Identify a Perinatal group in your hospital. (MD's and nurses).
2. Participate in the transport conferences at which we will jointly discuss *your* patients–1–3 X a year. (MD's and nurses).

3. Identify who should take a course on infant resuscitation to be given at your hospital (MD's and nurses).
4. Attend the 1 X year regional nursing conference in your area (nurses).
5. Attend a 1 X year perinatal conference in Hanover, NH (Oct. 22–23, 1976) (MD's and nurses).
6. Allow us access to your hospital records (Admin., MD's and nurses).
7. Take a written 60 minute examination at your hospital in 1976 and a repeat exam in 1977. All results will be confidential (MD's and nurses).
8. Use the perinatal mini-library in your hospital. (MD's and nurses).

Our responsibilities

1. Our perinatal team (ped., obst., nurse) will visit your hospital one to three times a year to participate in the transport conference about *your* patients. We will discuss ways of improving patient care.
2. Give a course at your hospital for nurses on resuscitation.
3. Organize a 1 X year regional course in your area and the yearly perinatal conference in Hanover, N.H. (Oct. 22–23, 1976)
4. Supply you with a yearly report on where you stand in your state/U.S.A./ world with regard to perinatal mortality rate.
5. Keep your perinatal mini-library up to date with reprints of useful articles.
6. Maintain a hot-line consult service.
7. Administer the exams and supply you with the results.
8. Personally discuss with physicians any patient care problem we observe which is not covered at our transport conference.
9. If a physician is unable to attend our transport conference and one of his/ her patient's is discussed, we will contact that physician by phone or letter in order that he may be made aware of any points which would be helpful to him/her.
10. Daily communications (if indicated) with you regarding *your* transfer patients in our unit.
11. Offer special mini-courses for any nursing personnel you want to send to MCHV or MHH.
12. Supply you with yearly reports of our studies.
13. Consult with you on problems of equipment purchase and maintenance.
14. Help to supply you with any audio-visual educational material you feel you need for your library.

Our mutual responsibilities

We both agree to work together to improve the effectiveness of the regional care of high risk infants and mothers. To do this we have to recognize that deficiencies will occur and that to deal with problems we have to communicate.

The Status of Infant Mortality in Sweden and the United States*

(By Helen M. Wallace, M.D., M.P.H., and Hyman Goldstein, Ph.D., Berkeley, Calif.)

Sweden has had the lowest reported infant death rate among all countries of the world for a number of years, and it continues annually to achieve this record. Because of this, it is important to study services and patient care in Sweden in order to determine the possible factors associated with Sweden's low infant mortality. This article will attempt to answer certain questions: (1) What is the status of infant mortality in Sweden and the United States? (2) What is the organization of maternal health services and child health services in Sweden which may be playing a role in infant mortality? (3) What are the implications of these factors and circumstances for the United States?

INFANT MORTALITY IN VARIOUS COUNTRIES OF THE WORLD

In 1971, according to data reported to the United Nations, Sweden had an infant mortality of 11.1 per 1,000 live births, the lowest reported rate of any coun-

*A study was made of live birth rates, infant, neonatal, and postneonatal death rates, late fetal death ratios, and perinatal death ratios for Sweden and the United States for selected years, 1950–1973. Sweden has lower live birth rates, infant, neonatal, and postneonatal death rates, as well as lower perinatal death ratios. Data available on low-birthweight live births for selected years, 1959–1970, for both countries indicated that rates in the United States were almost twice those in Sweden. Implications of these findings for the United States are discussed in light of the quantity, quality, and delivery of health care services, as well as of other factors in Sweden.

try in the word. In 1971, the reported rate in the United States was 19.1 (Table I), ranking sixteenth that year.

Infant mortality in Sweden and the United States.—From 1950, the infant mortlity rate in Sweden has remained consistently below that of the United States. The Swedish infant mortality has been in continuous decline from 1950–1973, except for the years 1967–1968, when there was a slight increase. From 1950 to 1973, the infant death rate declined 52.9% in Sweden, compared with a decline of only 39.7% in the United States. In 1973, the infant mortality rate in Sweden was 9.9, 43.8% lower than the 17.6 of the United States (Table II).

No state in the United States in 1973 had an infant death rate as low as that of Sweden. Utah had the lowest reported infant mortality, 13.0 in 1973, compared with 9.9 in Sweden in 1973.

Infant mortality by age in Sweden and the United States.—Of the total infant mortality of 9.9 per 1,000 live births in 1973 in Sweden, 7.8 (78.8%) was neonatal and 2.1 (21.2%) was postneonatal. In the United States in 1973, of the total infant mortality of 17.6, 12.9 (73.3%) was neonatal and 4.7 (26.7%) was postneonatal (Table II).

From 1960 to 1973, the infant death rate in Sweden declined 40.4%, compared with a decline of 32.3% in the United States. The neonatal death rate in Sweden declined 43.5% from 1960 to 1973, compared with a decline of 31.0% in the United States. By contrast, the United States had a greater decline in the postneonatal mortality in 1960–1973 than Sweden (35.6% compared with 25.0%) (Table II).

TABLE I.—REPORTED INFANT MORTALITY RATES PER 1,000 LIVE BIRTHS FOR SELECTED COUNTRIES: VARIOUS YEARS 1969–71

Country	Year	Rate	Country	Year	Rate
Sweden	1971	11.1	Canada	1970	18.8
Netherlands	1971	11.1	United States	1971	19.1
Finland	1971	11.8	Ireland	1970	19.6
Japan	1971	12.4	Singapore	1971	19.7
Norway	1970	12.7	Belgium	1971	19.8
Denmark	1970	14.2	Israel	1971	20.4
France	1971	14.4	Czechoslovakia	1971	21.6
Switzerland	1971	14.4	Luxembourg	1971	22.5
New Zealand	1971	16.5	U.S.S.R.	1971	22.6
Lichtenstein	1969	16.7	Germany (West)	1971	23.2
Australia	1971	17.3	Bulgaria	1971	24.9
United Kingdom	1971	17.9	Austria	1971	26.1
England and Wales		17.5	Greece	1971	27.0
Scotland		19.9	Spain	1970	27.9
Northern Ireland		22.7	Italy	1971	28.3
Germany (East)	1971	18.0	Poland	1971	29.5
Hong Kong	1971	18.4			

Source: United Nations statistical year book: 1972, New York, 1973, table 21 pp. 89–94.

Analysis of data of white infants in the United States shows that their infant death rates have been consistently higher than those of Sweden which has almost a completely white population. In 1973, the infant mortality rate in Sweden was 9.9, while for whites in the United States it was 15.2. In 1973 the neonatal mortality rate in Sweden was 7.8, while for whites in the United States it was 11.5. In 1973 the postneonatal mortality rate in Sweden was 2.1, while for whites in the United States it was 3.7 (Table II).

The percentage decline in infant and neonatal rates among whites in the United States has been consistently less than that in Sweden in the period of 1960–1973 (Table II).

The fetal death ratio in Sweden and the United States.—The fetal death ratio (fetal deaths of at least 28 weeks' gestation per 1,000 live births) in Sweden

was higher than that of the United States until 1963. In the late 1960s the ratio in Sweden was only four-fifths that of the United States.

The perinatal death ratio in Sweden and the United States.—In the period 1966–1972, the perinatal death ratio in Sweden has been about 30% lower than that of the United States.

Wedlock status.—From Table III it is evident that the rate of out-of-wedlock births in Sweden has been consistently increasing since 1963, and is considerably higher at this time. It has been about twice that of the United States and about three to four times that of the United States white population. However, the Swedish rate has been only about one-half of the rate in United States for other racial groups. It is of interest that, in spite of this increase in out-of-wedlock births, the infant death rate in Sweden has declined.

Birth weight.—The incidence of low birth weight in the United States is almost twice that in Sweden[1] (Table IV). In the United States, the incidence of low birth weight was 7.1% in whites and 13.7% in all other infants.[2]

It is well known that birth weight and gestational age are significant factors in survival of the infant (Table V). The lower the birth weight, the higher the mortality

MATERNAL HEALTH SERVICES IN SWEDEN

Maternal health care is delivered through maternal health centers, of which there are 282 in Sweden; 99 of Type I and 183 of Type II.[3] In 1970, 115,402 women received care there, with an average of 11.9 visits per woman. Maternal health centers Type I are connected with a hospital department of obstetrics and gynecology, and headed by an obstetrician. Maternal health centers Type II are headed by a district medical officer or some other physician; they are sometimes combined with a child welfare center. At present, approximately 95% of pregnant women receive prenatal care through these maternal health centers.

Standards for maternity care have been developed.[3] This includes medical and dental care, and such laboratory tests as screening for Rh and ABO incompatibility, syphilis, and bacteriologic culture for suspected gonorrhea. Optional tests include cytologic screening for cervical cancer, examination for detection of asymptomatic bacteriuria, and a roentgenogram of the chest during the second trimester. Contraceptive advice is a regular part of postnatal care.

Courses for expectant parents are given by nurse-midwives. Most prenatal care is provided by the nurse-midwives. Whenever a complication is suspected, the woman is referred immediately to an obstetrician; if confirmed, she will continue under the care of an obstetrician. Thus, there is screening for women at high risk, and their care is then the responsibility of the obstetrician. In rural areas, this is a problem, owing to the unavailability of obstetricians.

Over 99% of all deliveries take place in hospitals.[4] Most normal deliveries are done by nurse-midwives. Women with complications are delivered by obstetricians. The system of medical and hospital care makes this easy to implement, except in remote rural areas.

Maternal health care is free under the National Health Service, as are medications, including iron and vitamins.

Presently, there are more than 50 hospitals with departments of obstetrics and gynecology and full-time medical staff. They have about 70% of the total 3,600 maternity beds.

---

[1] Geijerstam, G.: Low birth weight and perinatal mortality, Public Health Rep. 84:939, 1969.

[2] Chase, H. C.: Trends in low birth weight ratios, United States and each state 1950–68, U.S. Government Printing Office, June 1973, Washington, D.C., 48 pp.

[3] National Board of Health and Welfare: Model regulations for maternal and child health service, Stockholm, 1970, 11 pp.

[4] The Swedish Institute: Public health in Sweden, Stockholm, 1972, 40 pp.

TABLE II.—LIVE BIRTH RATE PER 1,000 POPULATION AND INFANT, NEONATAL, AND POSTNEONATAL DEATH RATES PER 1,000 LIVE BIRTHS IN THE UNITED STATES, TOTAL AND WHITE, AND IN SWEDEN, TOTAL, 1970–73

[In percent]

Year	United States								Sweden			
	Total				White				Total			
		Death rate				Death rate				Death rate		
	Live birth rate	Infant	Neonatal	Postneonatal	Live birth rate	Infant	Neonatal	Postneonatal	Live birth rate	Infant	Neonatal	Postneonatal
1973	14.9	17.6	12.9	4.7	13.9	15.2	11.5	3.7	(1)	9.9	7.8	2.1
1972	15.6	18.5	13.7	4.8	14.6	16.3	12.3	4.0	[2] 13.8	10.8	8.7	2.1
1971	17.2	19.1	14.2	4.9	16.2	17.1	13.0	4.0	14.1	11.1	8.8	2.3
1970	18.4	20.0	15.1	4.9	17.4	17.8	13.8	4.0	13.7	11.0	9.2	1.8
1969	17.8	20.9	15.6	5.3	16.9	18.4	14.2	4.2	13.5	11.7	9.3	2.4
1968	17.5	21.8	16.1	5.7	16.6	19.2	14.7	4.5	14.3	13.1	10.9	2.2
1967	17.8	22.4	16.5	5.9	16.8	19.7	15.0	4.7	15.4	12.9	10.5	2.4
1966	18.4	23.7	17.2	6.5	17.4	20.6	15.6	5.0	15.8	12.6	10.3	2.3
1965	19.4	24.7	17.7	7.0	18.3	21.5	16.1	5.4	15.9	13.3	10.6	2.7
1964	21.0	24.8	17.9	6.9	20.0	21.6	16.2	5.4	16.0	14.2	11.7	2.5
1963	21.7	25.2	18.2	7.0	20.7	22.2	16.7	5.5	14.8	15.4	12.3	3.1
1962	22.4	25.3	18.3	7.0	21.4	22.3	16.9	5.5	14.2	15.4	12.4	3.0
1961	23.3	25.3	18.4	6.9	22.2	22.4	16.9	5.5	13.9	15.8	13.1	2.7
1960	23.7	26.0	18.7	7.3	22.7	22.9	17.2	5.7	13.7	16.6	13.8	2.8
1955	25.0	26.4	19.1	7.3	23.8	26.8	19.4	7.4	14.1	17.4	(1)	(1)
1950	24.1	29.2	20.5	8.7	23.0	50.3	(1)	(1)	14.2	21.0	(1)	(1)
Decline: 1960–73		32.3	31.0	36.9		33.6	33.1	35.1		40.4	43.5	25.0

[1] Not available.
[2] Provisional.

Sources: United States—National Center for Health Statistics: (1) Vital statistics for the United States, annual reports; (2) monthly vital statistics reports; (3) unpublished data. Sweden—National Department of Health and Welfare, Central Bureau of Statistics, Population changes, Stockholm, 1973. 1972 Demographic yearbook, New York, 1973, United Nations.

Abortion in Sweden.—A woman considering abortion may go to one of the special advisory centers on abortion. The applicant is given a thorough gynecologic examination to check on the state and length of pregnancy, and on the advisability of an abortion. Authorization for abortion can be obtained from either the National Board of Health and Welfare, or from two doctors in combination. When permission for an abortion is granted, it must be done in a public hospital by an obstetrician or surgeon. As a rule, it must be done before the end of the twentieth week of gestation. For teen-agers, it is relatively easy to secure an abortion. For example, in the years 1965–1969, 85% of those under 15 years of age had their applications for abortion approved. The cost of abortion is covered by National Health Insurance. Some counties have an abortion bureau which makes no charge for abortion. In other counties, the patient may have to pay 12 Kroner.

FAMILY PLANNING IN SWEDEN

The status of family planning in Sweden varies among the 25 counties and three large cities. In general, considerable information about family planning is available—via sex education in schools, information on hospital intrapartum and postpartum services, and at the time of the postpartum visit to the Maternal Health Center. There is considerable geographic variation in the availability of family planning services.

INFANT HEALTH

National planning consists of the provision of an intensive care unit for the newborn infant in each region of the country, located in a medical school. Some transport service is available A pediatrician is required to be present at all deliveries of high-risk infants in university and teaching hospitals. An effort has been made to train physicians and nurses in techniques of resuscitation of the newborn.

Neonatal screening is done routinely in the hospital for phenylketonuria, galactosemia, tyrosinuria, and fructosuria. A register on congenital malformations is kept by the National Board of Health and Welfare; reporting is done by maternity and newborn services which have a pediatrician; data are sent monthly from the hospital to the National Board of Health and Welfare.

There are approximately 1,300 child welfare centers in Sweden; 405 are of Type I (connected with a Department of Pediatrics of a hospital and directed by a pediatrician); 894 are of Type II (located in other facilities and directed by a medical officer). About half the children are supervised by Type I and the other half by Type II centers. The other main staff of the child welfare centers consists of nurses; some effort is being made now to add psychologists and social workers to strengthen the mental health aspects.

The service is completely free of charge. It consists of preventive measures, including medical examinations, screening for vision and hearing, immunization, and counseling.[5] All mothers receive a home visit by a nurse within 2 weeks of delivery. A baby is brought to the child welfare center at the age of 2 to 6 weeks. Almost 100% of children in the first 2 years of life are supervised by the child welfare centers, and 73% of the 2- to 7-year-old children. On an average, each infant makes five visits to the doctor and three to the nurse, who, on the average, also makes about three home visits to infants. Immunization is done for smallpox, diphtheria, tetanus, pertussis, and poliomyelitis. BCG vaccine is given before the baby is discharged from the newborn service. Counseling includes feeding, hygiene, child rearing, safety, and accident prevention. Efforts are made to encourage breast feeding.

IMPLICATIONS FOR THE UNITED STATES

Possible general factors contributing to the low infant mortality in Sweden include the fact that Sweden is a smaller country, with a smaller population which is more homogeneous and has a high per capita income, second only to the United States. People in Sweden have a high standard of living, based upon more even distribution of the wealth of the country. There is a high level of education, and the standard of housing and general nutrition is described as high. Sweden has both national health insurance and a national health service, making it possible for the people to receive medical and hospital care, and drugs at nominal additional cost. There is more even distribution of the amount and quality of medical and health care. The social security system of benefits for sickness, pregnancy, and children provides a basic family support system for vulnerable parts of the population.

There are also more specific factors contributing to the low infant mortality in Sweden. For example, in the field of maternal health, there is a countrywide network of of maternal health centers, which are attended by practically all women during pregnancy. The maternal health centers (except those in rural of isolated areas) are connected with a department of obstetrics of a hospital and are staffed by an obstetrician from the hospital. Thus, this network means that a health delivery system exists to screen pregnant women, identify those of high risk, and bring them under the care of an obstetrician. It is possible to transfer women with complications to hospitals with better maternity services, if necessary. There has been developed some regionalization of perinatal services for high-risk mothers and infants. The long-standing availability of abortion services and more recent development of contraceptive services have heightened the possibility of some reduction of unwanted pregnancies.

In the field of child health, the development of regional perinatal centers, including intensive care units for newborn infants and some transport service, is a factor contributing to the lower infant death rate in Sweden. The much lower incidence of low birth weight in Sweden is a major factor in its low infant mortality; possible explanations for this are better nutrition, more extensive coverage of the country for prenatal care, and removal of the stigma of pregnancy out of wedlock, by sharing the country's social benefits with these pregnant women and children. A pediatrician is present at all deliveries of women at high risk in most obstetric services. There has been training of personnel in resuscitation of the newborn infant. There is a countrywide system of child welfare centers with a very high rate of registration and supervision of infants. Except in rural and isolated areas, the child welfare centers are connected with a department of pediatrics of a hospital and are staffed by a pediatrician.

If the United States is to move ahead more rapidly in reduction of infant mortality, certain general measures are indicated for consideration. These include efforts to improve the general level of living, housing, nutrition, employment, and educational status of all of the population. The social benefit system

[5] Ragercrantz, R., and Broth, C. G.: Essentials of the Swedish national program for preventive child care, Stockholm, 1971, National Board of Health and Welfare, 6 pp.

of providing maternity benefits and children's allowances needs consideration. Our country also needs to come to grips with the issues of national health insurance and a national health service, which have the possibility of providing a more equal distribution of medical and health care for all people.

TABLE III.—BIRTHS OUT-OF-WEDLOCK (RATIOS PER 1,000 LIVE BIRTHS)—UNITED STATES BY RACE, AND SWEDEN VARIOUS YEARS, 1930–72

Year	United States				Sweden
	Total	White	All others		
			Total	Negro	
1972	124	60	403	439	251
1971	113	56	373	405	216
1970	107	57	349	376	194
1969	100	55	325	349	(1)
1968	97	53	312	(1)	(1)
1967	90	49	294	(1)	151
1966	84	44	276	(1)	146
1965	62	40	263	(1)	138
1964	68	34	245	(1)	131
1963	63	31	236	(1)	126
1962	59	28	230	(1)	(1)
1961	56	25	223	(1)	(1)
1960	53	23	216	(1)	94
1959	52	22	218	(1)	(1)
1958	50	21	212	(1)	100
1957	47	20	207	(1)	101
1956	46	19	204	(1)	102
1955	45	19	202	(1)	99
1954	44	18	199	(1)	98
1953	41	17	191	(1)	97
1952	39	16	183	(1)	99
1951	39	16	183	(1)	101
1950	40	17	180	(1)	98
1949	37	17	168	(1)	94
1948	37	18	165	(1)	(1)
1947	36	19	168	(1)	(1)
1946	38	21	170	(1)	(1)
1945	43	24	179	(1)	96
1940	38	20	168	(1)	118
1936	(1)	(1)	(1)	(1)	135
1930	(1)	(1)	(1)	(1)	173

[1] Not available.

Sources: United States—National Center for Health Statistics, published and unpublished data. Sweden—PFSU Statisuk. Befolkningen, Sexualvanor, Aborter, Gonore, Sexualbrot, Internationellt, Stockholm, May 1973, 99 pp.

TABLE IV.—PERCENT OF LIVE BIRTHS 2,500 GM AND UNDER—UNITED STATES AND SWEDEN, 1950–72

Year	United States	Sweden	Year	United States	Sweden
1972	[1]7.7	(2)	1960	7.7	(2)
1971	7.7	(2)	1959	7.7	4.5
1970	7.9	4.4	1958	7.7	(2)
1969	8.1	(2)	1957	7.5	(2)
1968	8.2	(2)	1956	7.5	(2)
1967	8.2	(2)	1955	7.6	(2)
1966	8.3	(2)	1954	7.6	(2)
1965	8.3	4.6	1953	7.6	(2)
1964	8.2	4.6	1952	7.6	(2)
1963	8.2	(2)	1951	7.5	(2)
1962	8.0	(2)	1950	7.5	(2)
1961	7.8	(2)			

[1] United States, 7.7 equals VT Sweden 4.4.
[2] Not available.

Sources: United States—Chase H. C.: Trends in low birth weight ratios, United States and each state, 1950–1968. Washington, D.C., June 1973, U.S. Government Printing Office, 48 pp.
National Center for Health Statistics, published and unpublished data.
Sweden—Geijerstam G: Low birth weight and perinatal mortality, Public Health Reports 84:939, 1969.

TABLE V.—PERCENTAGE DISTRIBUTION OF LIVE BIRTHS BY BIRTH WEIGHT

[United States, 1965, and Sweden, 1965 and 1970; and early neonatal mortality (within 7 days) by birth weight; Sweden 1965 and 1970]

Birth weight group (in grams)	Birth weight (percent)			Early neonatal mortality within 7 days (percent)	
	United States, 1965	Sweden		Sweden	
		1965	1970	1965	1970
1,000 or less	0.6	0.2	0.2	88.1	85.6
1,000 to 1,500	.7	.4	.4	47.6	41.2
1,501 to 2,000	1.5	1.0	.9	15.4	12.8
2,001 to 2,500	5.5	2.9	2.9	4.8	3.4
Total (under 2,500 gm)	8.5	4.5	4.4		12.2
2,501 gm or more)	91.7	59.5	95.6		
Total	100.0	100.0	100.0		

Sources: United States—National Center for Health. Trends in Prematurity, United States, 1950–67. Vital and Health Statistics, Series 3, No. 15. January 1972. Department of Health, Education and Welfare Publication No. (HSM) 72–1030. Sweden—Geijerstam G: Low Birth Weight in Perinatal Mortality. Public Health Reports 84:939, 1969. National Board of Health and Welfare, Public Health in Sweden, Stockholm, 1972. 143 pp.

A national plan is needed to provide services so that all pregnant women may have easy access to safe prenatal, intrapartum, postpartum, and contraceptive care. A mechanism is needed to make it possible to screen all pregnant women early in pregnancy, to provide health education, and to identify early in pregnancy those of high risk for medical and social reasons. Those of high risk then need to be provided with more specialized and extensive services. The best maternity care our country can provide has to be available to all pregnant women at high risk. One possible method to consider is that basic maternity care be provided by well-trained nurse-midwives or by obstetric nurse practitioners with the obstetrician concentrating his efforts on high-risk women. Outlying and satellite services should be tied to district or regional obstetric services of high quality for the care of high-risk women. The concept of regional perinatal care for high-risk mothers and infants, which is moving quite rapidly now in the United States, must be fully implemented. Intensive effort should be made to improve the nutritional status of pregnant women, adolescents, and preadolescents in an effort to reduce the incidence of low-birth-weight neonates. Abortion and family planning services should be made freely available to all who wish to use them.

Obstetric and pediatric inpatient, outpatient, and outlying services (including maternal health, infant health, child health, and family planning services in the community) must be brought together so that there can be continuity in mothers and children cared for and considered together as a unit.

The problem of low birth weight and of other high-risk perinatal factors must be concentrated on, both from the viewpoint of prevention and management. An Intensive Care Unit for the newborn infant should be available in each community or region, with rapid transport service. Each delivery of a woman at high risk requires personnel trained in emergency care of high-risk infants.

Similarly, a network of preventive services is necessary, providing the basic services of health appraisal, health education, immunization, guidance in infant feeding, nutrition, and accident prevention. Earlier identification of high-risk infants and their families, for medical or social reasons, is essential. Problems of child abuse and sudden infant death are assuming greater importance in postneonatal mortality and require earlier identification of families who need help. It is possible that the pattern for the future may be for basic preventive services to be provided by pediatric nurse practitioners, with early identification of those infants and families in need of special medical and social care and assistance.

STATEMENT OF BARI GLADSTONE-STROBEL, D.I.A.L., ADMINISTRATOR, JOHNSON, VT.

My name is Bari Gladstone-Strobel, and I am the Administrator of D.I.A.L. D.I.A.L. is a 24 hour, 7 day a week, information-referral-crisis intervention telephone center available as a toll free call in Lamoille County. It is operated by three staff positions: Administrator, Systems Manager and Co-Ordinator of

Volunteers, and approximately 45 trained volunteers from 9 out of 10 towns in Lamoille County. These volunteers are from high school age through senior citizens and must complete a 30 hour training course offered by the Lamoille County Mental Health staff, D.I.A.L. staff, and members of the D.I.A.L. Board of Directors. The training involves listening and effective helping skills, values clarification, role playing, philosophy of D.I.A.L., systems and community resources, and service advocacy.

D.I.A.L. has been in operation since August 8, 1975 and has received approximately 5,500 total calls, many of which are from outside Lamoille County.

D.I.A.L. functions as the only emergency service defined by the need the caller has, available to anyone for any reason. D.I.A.L.'s cost of operation in the time period from August 8th, 1975 through December 31, 1975 is $23,624.41. In actuality, D.I.A.L. has had to expend less than this figure because of in-kind services and contributions, and personnel funding programs such as CETA, The Johnson State College work-study program, etc.

The history of D.I.A.L. begins with a drug crisis at Johnson State College November, 1973, which involved the Lamoille County Mental Health, Copley Hospital, and Johnson State College. These three organizations felt there should be a means in the county to handle crisis and at the same time provide correct information about drugs, etc. From this crisis a group of county service and agency people formed a council, Help II which for a priority established D.I.A.L, something needed with a much wider focus than drug information center. In May, 1974, D.I.A.L became an incorporated organization with a board of county agency cooperation and representing such diverse areas as; Vermont Job Service, Champlain Valley Work and Training, Red Cross, Copley Hospital, Lamoille County Mental Health, W.I.C. program, Planned Parenthood, Lamoille County Development Council, county clergy, Department of Social Services, Johnson State College, Area Office on Aging, Elderly Nutrition Program, R.S.V.P. Morrisville Police Department, Stowe Police Department, and interested area consumers from the county. Because of the nature of the composition of the Board, D.I.A.L has been able to function for and with the county through a phenomenal amount of inter-agency cooperation.

D.I.A.L has sponsored and been involved in programs in the area; a one day, June, 1975, Women's Conference. "Women Changing" with workshops featuring women's health (an area of great need for education), rape, women and their use of alcohol and drugs, the single parent, "after the kids are gone", etc. This was co-sponsored by D.I.A.L, Social Services in Lamoille County, Lamoille County Mental Health, Lamoille-Washington Community Alcohol Council and the Elderly Nutrition Program, and Community College of Vermont. 80 people attended and further plans for future conferences and programs are being made. This workshop was free to the public, with free child care. One of the goals of this conference was to help Lamoille County women find the support, services and information they need to help themselves. A list of health resources in Lamoille County was provided free also.

Another program D.I.A.L co-sponsored was a week long series of workshops called Omnibus, held July 7th–11th, 1975. The workshops covered any and all topics; from nutrition to preventative medicine, from counseling to effective parenting, from yogi to arts and crafts. This was sponsored by D.I.A.L, Lamoille County Mental Health, Community College of Vermont, Alcohol and Drug Abuse Division, Lamoille-Washington Community Alcohol Council, and was available to the public free of charge and free day care was provided. It was held at the Morrisville Middle School and 80 people attended.

D.I.A.L is funded by a composite of federal (Area Office on Aging), state (ADAD, CETA), and local (Lamoille County Development Council, Lamoille-Washington Community Alcohol Council, Johnson State College, Lamoille County Mental Health), local fund-raising and is compensated to provide answering services and emergency service for the Department of Social Services, Holcomb's Funeral Home, Johnson Dental Group, and Lamoille County Mental Health.

It is my feeling, and that of the D.I.A.L board, especially in light of our contracts with Regional Medical Programs—that real health care delivery and planning can be augmented by a great deal of input and involvement on the *local* level. We have found that we are in a much better position to define, evaluate the needs in our own area better than a state agency and far better than a federal one. We have found that, for example, job funding and transportation programs are defined by population rather than need. How else is it that a

county with one full-time, one part-time taxi service which functions as the total transportation system for the area is turned for a *rural* transportation grant because it doesn't have a population center of 5,000 or more. Can we be too rural? Similarly, it has been that job funding has been assigned by population area, therefore, Lamoille County with its position of greatest unemployment for the last month gets less funds (until only recent reconsideration) than Chittenden County.

What has this to do with health care delivery? It is my view that health care delivery suffers in rural areas as does every other kind of service delivery. It is expensive and one cannot substantiate by noting numbers served. Rural areas, Lamoille County is no exception, do not attract physicians. We are better off than some, but for our 15,000 people (18,000 including in our 56 bed hospital shed), we have one General Practitioner practicing Obstetrics and Gynecology, and a Planned Parenthood which has one clinic per week, and closed two months a year, we have a Public Health Nurse who serves half the county and has been on several medical leaves, leaving the county with no real health education person. Home Health and Lamoille County Mental Health both attempt some community health education programs, but one, small, over worked, and involved in their survival. There is no real, and there must be an important emphasis on preventive education programs, especially to counteract the gaps in service delivery.

One suggestion is allowing for and requiring local input (perhaps county—not as large as "state") in health care delivery planning. Health Councils, or existing interagency and consumer councils (such as the one which has become the D.I.A.L. Board of Directors) with guaranteed consumer input are very necessary to help insure the very unique needs of different rural areas are heard and implemented into planning programs. I think a great fallacy is to assume that all rural areas are alike—they are alike in their need to be considered individually. I think any federal legislation must include and require a provision for local input into state and federal planning—something that may help to make the sham of Title XX less pitiful and create a means for potential and helpful planning on the part of the Federal Government and the State Government. It would be nice to feel, here in Johnson, Lamoille County, Vermont that planners and elected representatives to federal and state planning divisions or legislators are *really* attempting to plan programs to help *people*—not population figures and statistics gotten from costly private assessment firms. *Ask us*—give us the assurance we will be heard and what we have to say considered.

STATEMENT OF EDWINA B. MERCER, R.N., THE JOHNSON HEALTH CLINIC, JOHNSON, VT.

The Johnson Health Clinic, which I was Staff Director of for two years, is not open at the present time. The closing of the clinic was a result of a decision by the Johnson State College administration to institute a budgetary cut by removing its support to a health service. Everyone, in these days of financial cutbacks, sets their own priorities. I, of course, disagree strongly in the policy of the elimination of health care as a means of balancing a budget. Being only one small voice against a system, the system won. The elimination of the health clinic was especially tragic because it had been one of the college's most visible and useful contribution to a much needed service for the Johnson townspeople and residents of the surrounding communities.

With this as a background, I feel it is of value to submit testimony to the Rural Development Subcommittee, for the clinic exemplified a logical means of health care delivery to a rural area.

I. OUTLINE OF THE SYSTEM

The Johnson Health Clinic was established through a cooperative effort by Copley Memorial Hospital in Morrisville and Johnson State College in Johnson. It was developed for the purpose of providing physician service and health education to Johnson State College community and residents of the surrounding area. Copley Hospital provided a physician for four hours daily, five days a week, plus billing and laboratory services. (The physician service was cut back

when the college was not in session.) The college provided a facility, supplies, one full time nurse and student aid.

The clinic operated a four hour physician service by appointment, with emergencies seen when necessary. Individual health counseling and referral was done throughout the day as needs arose. Health education programs were developed for college and community when possible. There were some health related problems that could not be cared for due to minimal staffing and limited funds. The system was far from ideal, but it was a step toward meeting some of the health needs of the immediate area.

II. AREA AND NUMBER OF PATIENTS SERVED

The clinic served the staff, faculty, and students of the Johnson State College, which numbers close to 2,000. The clinic was open for service to the residents of the town of Johnson (population 1,927) and residents in the surrounding townships. The records show that people from the towns of Jeffersonville, Waterville, Cambridge, Belvidere and Hyde Park used the facility.

As with any new service in this area, the residents were slower in the initial use of the clinic, while the students at the college put the service to instant use. The Senior Citizens used the clinic to its best advantage, for their health maintenance visits tend to become more numerous while their ability to travel distances becomes limited.

In its last year of operation there were 3,000 recorded visits to the clinic. One third of the patients seen were community residents.

III. SCOPE OF CARE

The clinic had minimal staffing and equipment, but operated at optimum capacity. Any illness could be cared for. A large number of the diagnostic tests could be performed at the clinic, with the blood and other laboratory specimens transported to Copley Hospital at the end of each operational day. The specimens were processed by the hospital laboratory staff and reports were mailed or called to the clinic daily. Some of the more extensive laboratory procedures and all x-ray work had to be done at the hospital. If patients had transportation problems the staff assisted in obtaining or providing a means of getting to the hospital. All emergency problems which could not be cared for at the clinic were transported by the local ambulance service.

IV. DATA ON COST EFFECTIVENESS

The Johnson Clinic operated on absolute minimum funding. Expanded service could have been provided if the funds were available. The pooling of resources kept the cost output low for each party.

We were able to document a fee collection rate of 81–82% by keeping a record of all cash receipts and recording all payments made by the Johnson State Student's insurance plan. (The collection rate was actually higher than this figure, for there was no way of keeping track of Medicare, Medicaid, and other personal insurance payments.) The bookkeeping department at the hospital stated this was a higher rate of collection than at their own door.

V. SOURCES OF CURRENT FUNDING

None.

It was unfortunate that at the time of the decision by the college to eliminate a health service, Copley Hospital was committed in other areas. The hospital was in the process of expanding its own facility and was involved with the developing of a clinic in Cambridge. Although the hospital was willing to continue its current financial output it could not extend itself to picking up total costs. There was a frantic search by some students and concerned members of the community to seek other funding, but notice of closure was too short to seek out and obtain such funds.

VI. ABILITY TO ATTRACT AND RETAIN HEALTH PROVIDERS

The clinic, because of its proximity to the college and its distance from other primary care deliverers, was a fertile field for medical practice. It has been

proven that it is difficult to find physicians who wish to practice in such a rural setting, but this situation is ideal for the physician assistant or nurse practitioner. There was also a vast opportunity for education in the areas of health maintenance and preventive medicine.

VII. EFFORT TO COORDINATE WITH OTHER HEALTH PROVIDERS

A good working relationship and referral system was established with local physicians, the Medical Center specialists in Burlington, Social Welfare, Lamoille Home Health, Vocational Rehabilitation, Vermont Public Health Department, D.I.A.L., Lamoille Mental Health, Lamoille Ambulance Service, and many more health related agencies. It is impossible to work independently and still provide the best service for the consumer. I have found that all health related agencies in this area make an effort to co-operate with any of the primary care agencies in order to try to coordinate the services of the health delivery systems for the consumer.

VIII. QUALITY CONTROL

In the Johnson Clinic, the hospital possessed the ability to control the physician service and the college controlled the ability for the staff to perform in the health education and health counseling area. The input from the college, the communities and the hospital on services performed was extensive. The staff at the clinic did an admirable job at trying to respond to these criticisms.

I believe this is the advantage of small clinics. The consumer becomes more involved with the operations of the clinic, for they feel it is small enough that their opinions will be heard. The quality of performance is much more visible in the smaller facilities and this tends to keep personnel working at peak capacity. The feeling of being a part of or having a vested interest in a community clinic encourages good performance and increases consumer input.

SUMMARY

The previous outline includes many personal opinions, but it is a model of a system which was providing and still could provide the rural areas with efficient, effective health service.

It seems logical that mini-systems feeding into larger health care systems and these facilities feeding into the larger medical centers would provide best health care and health maintenance in the rural areas.

Obviously education in preventive medicine and health maintenance is not being done in the acute care facilities, therefore, it should be the responsibility of the smaller units to take time and make the effort in assisting the consumer in maintaining and attaining optimum physical, mental and emotional health. The consumer needs to be informed on how to make the best use of health care and health maintenance programs available to them through established health agencies. Mass media information has failed to do the education expected. Health counseling on an individual level or in controlled small groups have proven to be more effective.

Lamoille County has the beginning of what would appear to be the ideal system of providing efficient health care to a rural area. This system begins with an information and referral component available through an agency called D.I.A.L. (Dial Information and Assistance Line). This agency can inform the consumer on where and how to obtain health care or health information. A system like this working in conjunction with a health counseling center and coordinated with other health providers could be of great benefit in assisting the consumer in caring for his health needs and provide an excellent media for health education.

Rural areas also need adequate ambulance coverage, staffed with trained Emergency Medical Technicians. With this to provide the life saving service, D.I.A.L. to provide the information and assist with health education, clinics to provide the health maintenance, small medical facilities to provide the initial and supportive health care the rural areas would have a system that would work for the consumer at a local and personal level. The medical centers would provide care in specialized fields where more expertise is needed.

STATEMENT OF BARBARA A. BRASURE, ADMINISTRATOR, ADDISON COUNTY DENTAL CLINIC-TOOTH HOLLOW, INC., BRISTOL, VT.

The purpose of the Addison County Dental Clinic is threefold:

1. to provide low-cost dental care to the residents of Addison County in particular and to all State residents in general
2. to provide meaningful education to our patients on the subject of oral hygiene and nutrition
3. to provide training for unskilled workers qualifying them to obtain employment in the private sector as:
   (a) secretary/receptionists
   (b) dental assistants
   (c) nutrition/prevention specialists

Our patients are charged on a sliding fee scale predicated on income and family size; the scale ranges from 10% of full fee as designated by the Veteran's Administration in 1973, to 100%. It should be noted that only 3.5% of our total patient population of 1300 pays 100% and that these patients are almost exclusively comprised of persons who came to the Addison County Dental Clinic on a one-time emergency basis.

The Clinic offers complete general dental care; a large proportion of our patients are in need of endodontia and dentures. Dentures are provided on the sliding scale with the patient paying full laboratory costs and their customary percentage of the remainder of the fee.

The Clinic is currently funded through various sources:

Private donations

United Way

National Health Service Corps (provision of dentist until 6/30/77)

State of Vermont (provision of basis dental equipment on a one-time basis)

Personnel provided by the Middlebury Work & Training Program (through CETA slots, Senior Community Service, TEP slots, etc.)

3rd party payments (with the exception of Vocational Rehabilitation Division, which no longer provides dental restoration except in special cases)

Donations from towns (formerly through Revenue Sharing funds)

Fund raising activities of the Board of Trustees (the majority of whom are low-income persons)

In addition to this, efforts are being made to apply for grants.

The problems of the rural clinic, as we see them, are as follows:

1. The lack of provision of Medicare benefits for dental care outside the surgical, hospital setting, thereby leaving the elderly, whose income is usually limited, with large dental bills due to the need for dentures and other prostheses.
2. The lack of provision on the part of the Medicaid system for payment for adequate oral health education. It is our feeling that the taxpayers money is ill spent if patients are given only restorative treatment without concomitant education so that dental health can be maintained. It is our experience that, when provided with adequate education (i.e. 4 half-hour visits on the average) the rate of incidence of dental lesions is decreased by 66% (based on a sampling of a Headstart patient population on a six month recall basis). This finding, though based on a relatively small sampling, seems to indicate that the efficacy of such a program would justify the expenditure of a small amount of money (4 visits @ $7.00 per visit) rather than the large expenditures for restorative work. At the present time the Addison County Dental Clinic absorbs the cost of all but the first visit for Medicaid patients.
3. The difficulty with raising participatory revenue in some towns. There are, apparently, some Boards of Selectmen which do not make a decision regarding the Articles to appear in the Warning until after the deadline for submission of petitions is past thereby necessitating time consuming circulation of petitions where none may really be necessary.
4. The procurement by governmental units of wholesale or discounted equipment often leaves the health care facility with equipment which the company has no vested interested in maintaining or repairing quickly.
5. The present method of channeling payments for Medicaid coverage through the Blue Cross/Blue Shield system. Previously, the State made direct compensation in one lump sum; BC/BS makes periodic partial payments necessitating an absurd and unnecessary multiplication of bookkeeping procedures.

6. The rural practitioner must make a greater effort to maintain communications with laboratories and the rural patient must be prepared for delays in receiving prosthetic devices because of slower delivery.

7. The motivation of patients seems to be more difficult in a rural area; one can only wonder if the lifestyle of rural people might make them less conscious of the cosmetic and health implications of good dental care.

8. The apparent lack of responsibility on the part of patients in keeping appointments; this is due, at least in some degree, to a communications deficit (scarcity of telephones among the rural poor and lack of mass transit).

Thus, in brief, we have some of the more apparent probelms faced by our rural health care facility. We also face the problem of having a long waiting list of patients who are unable to take advantage of our faciilty since they are not in an emergency situation; because we are short of personnel, we are forced to accept new patients on an emergency basis only. Hopefully, in the future, we will be able to cope with this problem if we can obtain enough funds for personnel.

STATEMENT OF FRANK K. WOOLLEY, EXECUTIVE DIRECTOR, ASSOCIATION OF AMERICAN PHYSICIANS AND SURGEONS, INC., OAK BROOK, ILL.

At the request of Mrs. C. C. Miller, Lower El Mt. Rd., Morrisville, Vermont 05661, we are sending you a copy of the Bulletin issued by this Association pointing out the detrimental aspects of S–1466 and similar measures which greatly expands the power of the bureaucracy to coerce and interfere with the private affairs of citizens of this country.

Such enabling legislation partakes of collectivist authoritarianism rather than an open society as was intended by the Founders of the Constitution.

It will be appreciated if you will put this information in the Record of your hearings to be held on February 16 on this subject.

As you will see from the face hereof, a copy of this communication is being sent to Mrs. C. C. Miller so that she will know how we have responded to her request that this information be supplied to the Committee.

HEALTH EDUCATION—NEWEST WEAPON IN ASSAULT ON LIBERTY

Legislation is being pushed through Congress, in fact already have been passed by the Senate, for what appears to be the innocent and laudable purpose of promoting health education to improve the nation's health. The Senate version is S–1466.

THIS LEGISLATION IS DANGEROUS

On the pretext of helping people help themselves, it would:

1. Establish HEW as the arbiter of individual behavior, deciding how people should behave and taking action to force changes in their behavior to fit bureaucratic ideas;

2. Arm HEW and its agents with authority to use health education as a propaganda vehicle to undermine private free-choice medicines to help "reorganize and restructure our health services delievery system . . . and financing mechanisms";

3. Give HEW authority to use health education projects as a device to meddle with the quality of medical care;

4. Empower HEW to use health education as a weapon to attack private health insurance as a means of promoting compulsory political medicine;

5. Let HEW use health education as an excuse for sinister dabbling with "biological-genetic factors" affecting health;

6. Direct HEW to pressure medical, dental and nursing schools to include government approved education and promotion courses (read propaganda) as part of their curricula;

7. Confer on HEW the power (superseding the FCC) to intimidate TV networks into carrying government prescribed health education programs;

8. Authorize HEW to employ censure by publicity, "non-government sanctions and *all the moral and political power (it) commands*" to compel the advertising industry (including radio, television, newspapers and magazines) to eliminate material from advertising deemed "by objective professional opinion" to be "injurious to the nation's health" (emphasis added);

9. Instruct HEW to cut off federal grants and Medicare/Medicaid funds to hospitals unless they force-feed government devised health education to all inpatients and outpatients;

10. Grant HEW, in the name of health education, the extraordinary power to intrude into federal programs in agriculture (to eliminate government support for harmful or potentially harmful products like tobacco and "beef with high fat content"), and into federal programs in housing, transportation and energy, and even into local police matters ("control of violence").

It can only be imagined what advantage HEW bureaucrats will take of this gift of unprecedented power to devise insidious police-state regulations and controls to clamp on physicians, dentists, farmers, businessmen, hospitals, medical schools, the communications media, advertisers and others—all in the name of promoting better health for Americans.

S–1466, sponsored by Senator Ted Kennedy, who has a disposition for introducing legislation aimed at trampling on individual rights, passed the Senate without debate and without a recorded vote.

Rep. Paul Rogers, Chairman of the Health Subcommittee of the Interstate and Foreign Commerce Committee, is expected to schedule hearings on S–1466 and similar bills introduced in the House—HR–8278 (sponsored by Rogers) and HR–5839 (introduced by Rep. Tim Lee Carter, Kentucky Republican and a physician).

"Among the absurd and insulting premises on which this legislation is based are that physicians and dentists don't know the 'relationship between nutrition and health' and that physicians are less likely than nurses to educate patients on good health practices because physicians aren't sufficiently interested in the patient 'as a person.' Another is that the American people lack the intelligence 'to examine and weigh consequences of personal decisions respecting health.' "

Therefore (as stated in Dr. Carter's bill, in S–1466 and in the Senate committee report on S–1466), "the public *must* be motivated to desire changes supportive of more healthful lifestyles" and "impediments that inhibit the voluntary adoption and maintenance of more healthful practices by the public *must* be identified and mitigated or removed" (emphasis added).

If anyone doubts that force is the method of choice to change behavior contemplated by Sen. Kennedy and Reps. Rogers and Carter and whoever drafted these treacherous bills, the doubter should ponder this from the committee report on S–1466.

"Direct governmental efforts to modify citizens' behavior, mass media content, and school curricula in ways that are scientifically sound, effective, and culturally acceptable represent extremely difficult issues. On the one hand, the current state of the art of health education is probably inadequate to deliver effective and reliable results in the public interest from such interventions. On the other hand, *to be effective, such actions by a government agency may conflict with constitutionally guaranteed private freedom*" (italics added).

So what do the members of the Senate Labor and Public Welfare Committee, all of whom are under oath to uphold the Constitution, propose to do to make certain that HEW cannot use this legislation to violate constitutionally guaranteed private freedoms of the American people?

Nothing! In fact, they propose just the opposite. They propose to make it easy for HEW bureaucrats (the probable instigators of this iniquitous legislation) to snuff out private freedoms that interfere with their ambition to control individual behavior. They propose to use private citizens and organizations to engage in a massive, government-directed brainwashing campaign to soften up the people to accept bureaucratic assault on their constitutionally guaranteed private freedoms. That's what the following gobbledygook in the report means:

"Therefore" (because of the possibility of trodding on private freedoms), "organized private action is needed to explore controversial issues and develop national guidance which reflects a general professional and consumer consensus on appropriate and acceptable directions of effort. *Because such private policy does not have authority to compel compliance*, it must necessarily include development of voluntary support and *resolution of realistic constraints* which are a fundamental part of the problem. Once the efficacy and acceptability of such privately developed initiatives has been demonstrated, then *the need for and exact nature of additional governmental support to extend implementation will be both clearer and less likely to encounter opposition*" (emphasis added).

"A basic goal of this legislation for a Federal 'Health Education Strategy' is to use health education as a weapon to undermine private, free-choice medicine.

That goal is made clear in the Senate committee report on S. 1466: 'The cluster of concerns outlined and described in . . . this report urge us to continue our efforts to reorganize and restructure our health services delivery system and to continue to experiment with innovative financing mechanisms'."

Elsewhere, in the report that goal is identified in this way: "These programs (health education and an attack on communicable diseases) are an essential element in forging a truly effective health care policy for our country and have the potential for undergirding work in reforming our system of health care financing and the delivery of personal health services."

AAPS will oppose this legislation and will seek opportunity to submit testimony whenever hearings are scheduled. In the meantime, here is

WHAT YOU CAN DO

1. Appeal to your congressman to oppose S–1466, HR–8278, HR–5839 or any variation that may be proposed by a House committee or by other members of Congress.
2. Notify your hospital administrator of the threat this legislation poses for the hospital (federal bureaucratic interference and loss of funds).
3. Urge your county and state medical societies to notify Congress of their opposition to these bills and to persuade the AMA to oppose them actively.
4. Inform TV and radio stations how they will be subjected to government pressure to carry government propaganda in the guise of health education.
5. Inform your newspapers that they and their advertisers will be subjected to government pressure to alter advertising to fit bureaucratic edicts.
6. Alert others, such as your local chamber of commerce and farm bureau, how this power grab by HEW threatens them specifically.

STATEMENT OF LINDA R. BAILEY, VERMONT CANCER REHABILITATION PROJECT, BURLINGTON, VT.

As a health professional I am concerned about the present health care delivery as it exists in Vermont. We are a rural state with four to six months of inclement weather and hazardous road conditions per year. There are medical centers in our state but to many Vermonters they are inaccessible. The people who live a distance from a hospital are faced with the decision of traveling or limiting the health care they receive. For those who don't drive, the problem is greater as there presently is no system of transportation to many of the little towns clotting Vermont's countryside. Although some counties do have volunteer transportation services via concerned individuals these are not dependable resources. The American Cancer Society allows only 6¢ a mile to transport our patients, so the driver usually takes a loss.

Two things are needed in my estimation: increased home care delivery via MD's, RN's, home health aides, physical therapists, etc., and a system of transportation with adequate reimbursement for the driver so that all Vermonters could utilize the health services present in their state.

STATEMENT OF DR. ROBERT S. JAGGARD, M.D., OELWEIN, IOWA

Dear Senator Leahy, when you hold hearings in Vermont on February 16 (with Senator Clark of Iowa) in regard to a bill for health education, I trust you will bring to the attention of the people the fact that the U.S. Supreme Court has ruled that any patient whose medical and/or hospital care is paid for in whole or in part by Government funds has no right to choice of doctor and no right to choice of treatment.

Some people might approach health care in a different fashion if there were "education" available to them as to the real meaning of this decision.

J A G

[VOL. 13—NO. 4—FEBRUARY, 15, 1975]

(An educational report dedicated to the preservation of individual moral responsibility and to establishment and implementation of a Free Enterprise Sys-

tem. Distributed by JAG, Inc., R. S. Jaggard, MD, Pres., 10 E. Charles, Oelwein, Iowa, 50662, and available to anybody upon request, no obligation.)

MY POLICY

I have no desire and no intention to initiate the use of force against any honest person. An honest person is one who does not initiate the use of force against others. I have no desire and no intention to control, limit or regulate the productive and/or creative energies of any honest worker. An honest worker is one who works to produce goods and services of value to himself and others, and then, to gain goods and services which he desires to maintain and/or enrich his life, deals with other honest workers and willing exchange for mutual profit and advantage. I want to work and live in peace. I choose voluntary cooperation, not coercion, and my wife and I voluntarily give away 11% of our income to help other people.

Government is an organization that vigorously asserts and plausibly maintains a monopoly on the use of force within a certain geographic area. The only basic tool available to government is force, ultimately applied by an officer with a gun. Since noble goals can not be achieved by ignoble means, (because the end is redetermined by the means), government can not accomplish any charitable goals supposedly based on love and/or compassion. Government, if it has any logical purpose at all, can legitimately serve only as a mechanism of defense, whereby the individual citizen can join together with others to form a collective defense that would prevent any other person from initiating the use of force against him.

At this time, the government of the United States has abandoned its defensive role and has become the aggressor against the honest workers of this nation. The national policy of government is to penalize the honest, industrious and thrifty workers, while rewarding immorality, waste, and inefficiency. This whole sordid mess is promoted by politicians promising "freedom." To the worker, they promise freedom from the urge to share with needy neighbors voluntarily. To the welfare recipients, (including Penn Central, rich farmers, etc.), they offer freedom from the necessity to be honestly productive. Meanwhile, all of us are cast into economic slavery by confiscatory taxation. Because the income tax is the basis for all this immoral activity by government, I favor the Liberty Amendment, which would Repeal The Cancerous Income Tax.

Government is now heavily involved in programs related to health care. Doctors can receive large amounts of money from government (tax money) in exchange for selected items of medical service for selected persons. If I were to accept payment by government, I would be condoning the immorality of governmental seizure of property from honest workers (taxation) for the specific purpose of putting said property (money) into my pockets. Because this would violate my basic moral code, I refuse to accept government money and have not accepted government money since July 1, 1962 (sixty-two).

I do not limit my medical practice by age, sex, disease or financial condition of the patient. I am available for medical service to all who choose to trust me and to deal fairly with me. If my patient is poor, I ask that he pay me an amount equivalent to what he spends for alcohol and tobacco each week. If he neither drinks nor smokes, he owes me nothing. If my patient has private insurance, I help him by putting information on his insurance forms, and putting a rubber-stamp above my signature: "This form is completed only as a service to my patient, and no implied or real contract exists between me and the Insurance Company." I deal directly with the patient and only with the patient. If my patient feels that I have charged too much for my service, he can give me the name of a doctor who would charge less, and I will accept that lesser amount this time, and he can call that other doctor next time.

In maintaining my personal freedom and integrity in medicine, I have received considerable help and assistance from the Association of American Physicians and Surgeons (AAPS), and I am proud to be a Life Member of AAPS. Our Association is open to all physicians who pledge that they will not participate in any program of medical care that is inimical to the best interests of their patients. Obviously, this means that we members of AAPS will never totally withdraw our services from our patients, and certainly we will not aggressively prevent our patients from seeking care from other physicians. In plain words, we are not a "union," and we will not "strike." The AAPS program of "non-participation" simply means that we AAPS members will not participate in programs that would harm our patients, which means that we WILL participate in pro-

grams that truly HELP our patients. We will continue to serve our patients to the best of our ability by working in and For Freedom.

JAG.

J A G

[VOL. 13—NO. 8—FOURTH OF JULY, 1975]

IN DEPENDENCE

Two hundred years ago, American patriots and freedom-lovers were taking up arms to fight for Independence, the basic premise being that they were free men who wanted to live their own lives without governmental domination. Today, many Americans are taking up pens, to write to politicians, to ask for subsidies, special benefits and Dependence. And they are getting it.

Politicians, especially those currently in office, are running for election, all the time, and every decision they make is supposed to be made for the best interests of ALL the people, but in actual fact most of their actions are designed to help them get re-elected. This makes the politician dependent upon the voters, yes, but, stupid avarice and blundering attempts to "get what's coming to me" have blinded most voters and thus made them Dependent upon the politicians. And from what source does government get all that money for subsidies and benefits? From the workers, of course. Every time somebody gets "help" from government, somebody *else* gets robbed by taxation. Thus, the honest worker is deprived of his earnings which he might otherwise use to make himself Independent, while the taxes collected (minus administrative cost) (and graft) are used to make more people Dependent upon government subsidies, and the vicious cycle continues.

Spending by government now roughly takes half of everything earned by all workers. (Yes, it "roughly takes" half, and, it also takes "roughly half"). Governmental budgets, especially the federal one, have become elephantastic in size. One typical example is the Food Stamp program, which started with 117 federal employees and a total cost of $31 million just 11 years ago, but now involves 2,000 federal employees and cost $5,000 million (or, $5 billion), (figures supplied by Congressman Grassley of Iowa).

Those who are Dependent upon government for protection are in trouble. The streets and highways, run by government, are not safe. Criminals have rights and loopholes, but victims don't. Our foreign policy is a disaster, apparently designed to "protect" us by giving us the "peace" that Comrade Khruschev bleated for so much. (In case you have forgotten, the Soviets have it all figured out that the world will have peace as soon as everybody bows down and obeys THEM.)

Those who are Dependent upon government for security are in trouble. Governmental deficit spending creates inflation, which robs every worker of his savings, and especially harms the elderly on pensions. The so-called Social "Security" System is in deep trouble, just as bankrupt as the federal treasury is (since that is the depository that is theoretically holding the "reserves" by which the Social "Security" system is funded).

Those who are Dependent upon government for medical and hospital care are in trouble. Politicians have promised millions of Americans all sorts of health care at reduced cost or no charge, and now the politicians are finding out that our warnings of over-utilization and cost-over-runs were much more accurate than their "estimates", so the government is trying to cut back on the amount of care offered and the quality of that care. Talk to your doctor. Ask him about PSRO, which will prevent you from receiving treatment prescribed by your doctor if his decisions are not approved by a review committee (whose basic goal is to cut costs). Ask him about MAC, which will prevent you from receiving the drugs prescribed by your doctor if some far-removed and faceless committee decides that some other drug that is "cheaper" will be "just as good" for your problem. Ask him about FDA restrictions on drugs that currently are causing much higher drug prices to you, plus lack of availability in this country of some useful drugs, and ultimately will stifle research and prevent new drugs from being developed. Yes, friends, ask your doctor, and find out for yourself, if you depend on government for your health care, you are in trouble.

"More and more Americans are coming to the conclusion that the government is at best a comic nuisance and at worst an expensive and dangerous machine running out of control." (Quote from article by George F. Will, in April 11, 1975 issue of National Review magazine.)

"There is only one solution to 'the mess we are in' and that is to repeal all laws that restrain or prohibit creative activity." (Quote from newsletter of Masters Grain Co., K.C. Board of Trade, Kansas City, Mo. 64112.)

The modern American Revolution is being fought with pens instead of rifles. We must persuade Americans to fight for Independence, instead of Dependence, or there will be nothing left to celebate in '76.

J A G

[Vol. 14—No. 2—November 25, 1975]

NO RIGHT

(Quote) "Patients whose medical care is provided by public funds have no constitutional right to whatever care appellants, using 'the highest standards of medical practice' (J.S. 8), may 'judge necessary' (ibid), or to obtain that care 'from a physician * * * of their choice' (ibid)." (End Quote) (Note: Those three stars are part of the quotation).

That quotation is from page 5 of the 13 page Motion to Affirm filed by Solicitor General R. H. Bork, acting for the federal government, in arguments before the US Supreme Court, urging the Court to affirm the decision of the District Court, in Chicago, from which adverse ruling the Association of American Physicians and Surgeons (AAPS) had appealed.

Congress passed the Professional Standards Review Organizations (PSRO) law in October, 1972. Our Association of American Physicians and Surgeons (AAPS) filed suit in Chicago federal court in June, 1973, asking the court to declare the PSRO law unconstitutional on its face because of the fact that it interferes with the patient's right to choice of physician and to choice of treatment, and, it interferes with the physician's right to give his best medical service to his patient on an individual basis that is best for that patient. (The application of the law will do these things by putting a political overseer in the position of telling the doctor what things he can or can not do for the patient.)

In May, 1975, the Chicago District Court ruled against AAPS, and we appealed to the Supreme Court. This month, the US Supreme Court affirmed the decision of the District Court, following the argument presented by the government's lawyers, including the quote in the first paragraph above.

Now, will all you people who have been recommending politicalized medical care for everybody, (sometimes called "national health insurance"), please tell all your friends that you have been recommending that they be forced into a program in which they would have NO RIGHT to choice of doctor and NO RIGHT to choice of treatment? Also, will all you labor union leaders who have been supporting political control over medicine please tell all your union members that you have advocated a system in which they would have NO RIGHT to choice of doctor and *no choice* of treatment? And, what about food and housing? If the patient has NO RIGHT to choice of doctor and/or treatment, does the person whose food and housing is paid for by public funds have any right to choice of style or amount of food or housing? Will the "Welfare Rights Organization" now honestly tell their people that they have no rights whatsoever, and the organization is a sham?

Go ahead, Tell it in Gath, Publish it in the streets of Askelon. Tell everybody, that patients whose medical care is paid for (even if only in part) by public funds have NO RIGHT to choice of doctor and/or treatment.

On page 18 of that 36 page decision by the District Court, the judges ruled that PSRO is not mandatory for physicians, and then said, (quote) : "Rather the legislation sets forth certain review procedures to be complied with for any practitioner wishing to participate in the program and to be paid by the federal government. Underlying the constitutionality of the challenged legislation is the basic premise that each individual physician and practitioner has the ability to choose whether or not to participate in the program" (end quote).

Notice is hereby given that I have never been and am not now and plan never to be a participant in any of the medical care programs under the Social Security System, (including medicare and medicaid). I do not pay Social Security taxes, and I take no money from the Social Security program and have received no money from any governmental agency since July 1, 1962. Therefore, in accordance with the decision of the Federal District Court in Chicago, affirmed by the US Supreme Court, the PSRO law does NOT apply to me. I am exempt from

the provisions of the PSRO law, and PSRO rules and edicts have no force or effect on me.

R. S. JAGGARD, M.D.

Copies to: All local hospitals, foundations, PSRO's, medical societies, and government officials, plus HEW & FBI & CIA & Department of Justice, and about 2,800 other people across the nation, including news media.

JAG.

STATEMENT OF C. C. MILLER, MORRISVILLE, VT.

What makes you think that the Congress has to do its best to promote *anything* referred to as adequate delivery systems regarding rural health care??

Information will be forth coming from informed sources, which I intend to enter into testimony. I have this afternoon contacted Dr. R. Jaggard at his office in Oelwein, Iowa, he being the President of the AAAPS (American Association of Physicians and Surgeons) information concerning this proposed legislation will be sent to you directly from the Chicago office which I desire to be entered as testimony in opposition to this socialistic endeavor.

STATEMENT OF LYDIA RATCLIFF, THE GOOD HEALTH CENTER, CHESTER, VT.

Today the cry in the field of health is for prevention and health education. It has finally begun to dawn on us that the $120 billion we have been pouring into the building of hospitals and clinics, the purchase of elaborate and extraordinarily expensive equipment, the training of specialists and the development of vast medical bureaucracies—has actually bought us very little in terms of *better health*. In fact, although we have made big "strides" in life prolongation (in many cases, whether the patient wants his life prolonged or not) there are many areas in which our health has deteriorated. Many forms of cancer are on the rise as are heart disease, venereal disease, diabetes, malnutrition and mental depression.

Nationwide—and this also is true in Vermont—less than 3% of our health dollars are spent on prevention and early detection of illness. The emphasis is overwhelmingly on sickness. As a result, nearly half of our preschool children are currently unprotected against polio, measles, rubella, diptheria, tetanus, or whooping cough. Two out of three children are unprotected against mumps.

Today, one half of all blindness suffered in the U.S.—and in Vermont—is considered needless by the National Society For The Prevention of Blindness.

One half of those who have high blood pressure don't know that they have this potentially deadly condition, and half of those who do know they have high blood pressure are not under any kind of treatment.

Birth defects of many kinds, including retardation, are attributed to the simple lack of prenatal education and nutrition—lack which the medical "establishment" as well as government programs have failed miserably to correct.

The link between smoking and lung cancer is universally acknowledged. Yet our health "system" has not made stop-smoking clinics available to the public.

Obestiy and poor nutrition are widely cited as major contributing factors in heart disease. But who has made a serious attempt to find ways to help people lose weight and fight their way through the nutritional wasteland which our food marketplace has become?

A group of us in Southern Windsor County, about 30 to 40 people including both professionals and non-professionals, have put together detailed plans for a model "Good Health Center" which would attempt to present the "state of the art" in the fields of health education and preventive services, and offer these services to the populations of Ludlow, Proctorsville, Cavendish, Chester, Belmont, Weston, Springfield, Reading and a few other small towns comprising a total catchment area of about 13,000 people.

Initially, we would like to bring together under one roof a variety of health services focused on prevention and health education which already exist in the area, but, in most cases are confined to the larger cities such as Springfield. For example: meals and nutrition education for older people; the Women's, Infants', and Children's (WIC) nutrition program; mental health and guidance programs; the early and periodic screening, diagnosis and treatment program;

flu shots and immunizations; counselling for problem drinkers; smoking cessation programs. Many of the agencies and individuals who are now responsible for these programs in our area have expressed an interest in working with us to bring their programs to a more local level and coordinate them with other efforts.

In addition, we consider health education a high priority since it is almost non-existent in our area. We would like to develop a prenatal education program for all parents-to-be—covering nutrition, exercise and child care. We would like to put together an educational program for the community on high blood pressure—including its detection and its management on a continuing basis. We are presently working with one entire school district to develop a districtwide nutrition education curriculum for elementary and high schools. We have been asked to develop a Parent Health and Nutrition Education Program for a large preschool Head Start Daycare program in the area.

We also have assembled an impressive library of patient education materials in areas ranging from glaucoma to gonorrhea and would like to make these materials as widely available as possible. We believe that one of our greatest untapped health resources is our own capacity to learn how to take care of ourselves and to manage our own chronic conditions. The Good Health Center also would become a central source of information on food stamps, Medicare and Medicaid benefits, health services available in the area, SSI, family planning services, public assistance programs, etc.

Later we would like to develop and offer, in collaboration with the Vermont Lung Center in Burlington, a regular stop-smoking clinic, classes in weight reduction and first aid, exercise workshops, a widow's and widower's counselling and support service, special counselling for school children who fail to adjust to school, family, friends, etc., a health advocacy (ombudsman) service serving to help overcome obstacles to health care in our area, improve communications between public, providers, and agencies, do outreach work and coordination with public health nurses, Southeastern Vermont Community Action, 5–C Child Development Corporation, and others and develop an effective information and referral service.

We plan to do physical examinations, performed by a nurse practitioner at the lowest possible cost consistent with high quality service, and to use the Health Hazard Appraisal patient questionnaire and evaluation. Medical records would be shared with patients and used as educational and motivational tools. Medical problems emerging from physical exams, questionnaires and special screenings would be referred to the physician designated by the patient or the local agency capable of dealing with the problem. We would expect that physicians, agencies, visiting nurses and others would, in turn, refer people to the Good Health Center for services they did not normally provide such as stop-smoking clinics, nutrition education, weight reduction, group counselling, meals, transportation, information, prenatal classes, first aid courses, problem drinking intervention, etc.

Enthusiasm for the proposed Good Health Center has been considerable, both within the community and throughout the state. Many people have offered volunteer services.

Outside Vermont, we have been communicating with numerous individuals and organizations to put together the various pieces of our plan—among them the Life Extension Institute which has become a leading authority on the physical exam, to the Health Care Systems Program of the University of Massachusetts, Amherst, which is pioneering a "Personal Life Health Plan"—an ongoing "contract" between doctor and patient centered on health maintenance rather than response to the end stages of disease.

We have had the active cooperation of Windsor County Mental Health Services, Planned Parenthood. The Office on Aging. The Public Health Nurses. The Renaissance Alcohol Treatment Center, Southeastern Vermont Community Action, Consumer Controlled Community Child Care (5–C), in addition to physicians, dentists, psychologists and others working in the area. The Vermont Department of Health is on record as a "cooperator" for the Good Health Center and has promised "to provide liaison, and staff work necessary to interface state responsibilities with those of the Good Health Center."

The Good Health Center *could* represent a major advance in the way in which we deliver health care and allocate health dollars nationally as well as in Vermont. We are convinced that we, in this state and elsewhere, are suffering not so much from a lack of medical services as from mismanagement of existing

resources; excess money spent (or wasted) on "planning" as opposed to services; a lack of responsiveness to the needs of the whole person; and a gross overemphasis on acute care at the expense of prevention.

Yet, to our great discouragement, both state and federal governments claim they have no funds whatsoever for the prevention type of project.

Despite the strong emphasis on prevention in the just-issued Federal report on Health Care in the U.S., virtually all public and private money continues to be allocated to the management of acute and chronic illness. Virtually no health insurance plan, public or private, covers preventive care today.

The Good Health Center recommends a major shift away from this orientation, in the direction of prevention and health education, in state, local, and federal health planning and in any major new health legislation. We offer The Good Health Center as a beginning model for moving in this new direction.

Proposal for a Good Health Center in or Near Ludlow, Vt.

We submit this request for $43,310 to establish a Good Health Center in Ludlow, Vermont—one half of our estimated first-year budget and startup needs. This Center will coordinate and improve preventive services in the Ludlow, Proctorsville, Cavendish area, especially those services presently provided through state and federal programs. In addition, the Center will provide health education, both preventive and remedial, on a regular basis. Ongoing classes as well as written materials will be provided through the Good Health Center.

INTRODUCTION

Mounting epidemiological evidence suggests that prevention has the potential for raising the health status of our population and *could* be relatively inexpensive compared to acute crisis care. We in the Ludlow area believe that a Vermont experiment in prevention is warranted. [See attachment on p. 245.]

The problem of disease prevention itself has changed radically since 1900 when pneumonia, influenza and tuberculosis were the leading killers. Today, heart disease, cancer, and stroke, and, among the younger age groups, deaths from motor vehicle accidents, homicide, and suicide claim our attention. A distinctive feature of these conditions is that most of them are caused by factors (e.g. environment and individual behavior) which are not susceptible to direct medical solution. Cigarette smoking, for example, is considered to be primarily responsible for a large number of diseases afflicting society, from lung cancer and heart disease to chronic bronchitis, but it is also a major social, economic, cultural and psychological phenomenon. In the same vein, there is much greater recognition today that the kinds and amounts of food and liquor we consume and the style of living of our sedentary society are major contributing factors to the development of chronic illness and that to change these patterns of behavior *requires the active involvement of the individual.*

It is, therefore, a basic premise of the prevention strategy that much greater attention and resources must be directed at preventing the underlying causes of disease rather than at treatment of advanced stages of the disease. Enough is known about the underlying causes to justify major preventive action now.

OUR IDEAL FOR ACTION

The principal disease causing factors to which the Center will address itself are smoking, alcohol, inappropriate or excessive eating, inadequate exercise, and early identification of physiological changes and risk hazards. Of the wide range of actions possible to attack the problems, we have chosen education. Our plan is to put together a comprehensive program to educate the general public and special high risk groups. Specific examples of programs include suggesting how chances of getting heart disease can be reduced by the wise selection of foods; instituting and coordinating nutrition programs in the schools; prenatal classes for pregnant women; and support programs for people who want to stop smoking. Our immediate goal is to heighten our community's awareness of the underlying causes of disease and to suggest practical ways of preventing.

JUSTIFICATION FOR THIS APPROACH

While there is much that can be done to prevent disease and death, there is still much about which we are uncertain. Some preventive approaches are effec-

tive and others are either too costly or the benefits obtained are unclear. Recently, the American College of Preventive Medicine assessed the efficiency of some current public health practices. Some of their preliminary conclusions are:

That multiphasic screening cannot be recommended as cost/beneficial for general application except, perhaps, for defined, high risk groups;

That immunization programs are clearly beneficial;

That screening for cancer of the cervix is a productive technique and should be made more widely available;

That, despite widespread disagreement about the effectiveness of current health education efforts, there is some promising evidence that well-designed education programs are effective and

That proper use of a variety of media can reinforce individual efforts to reduce the risks of disease.

In addition, the Federal government in its 1975 Forward Plan for Health has singled out health education as well as child health and nutrition as areas for particular attention in its strategy for improving the Nation's health. In health education, highest priority has been given to research and demonstrations aimed at improving health education concepts and the cost-effectiveness of its techniques. We feel that our proposed Center fits into this framework which in turn suggests potential sources of future funding once we are established.

OUR IDEA FOR COORDINATION

A major problem interfering with maximum efficiency of the health system is the unequal and unplanned distribution of health resources. Furthermore, there has been inadequate emphasis on organizing various health care fragments into the most efficient configuration. We feel this is particularly true in rural areas such as ours where the existence of health services is unknown, or widely dispersed and unaccessible to major portions of the population for a variety of reasons.

Individual practitioners in Springfield, Ludlow and Chester, state agencies such as the Public Health Nurses, and volunteers organizations are attempting to remedy this situation but to date their actions have been on an individual basis and uncoordinated. We propose to provide in one place preventive services that support the existing medical care system and extend the scope of a available services. We do not propose to "reinvent the wheel," by adding totally new services or to duplicate services which exist and are best provided in physicians' offices or the hospital.

It is our goal to pull together those few preventive resources now available and add the services necessary to provide a comprehensive preventive and referral facility. The Vermont Department of Health has endorsed this effort, is actively working on its development, and has pledged to help coordinate state-supported services to be provided through The Good Health Center.

EVIDENCE OF NEED

Unmet Needs—At present there is no organized effort to provide health education and/or preventive care in our area.

Individual practitioners, state agencies and volunteer organizations are attempting to fill this void. However, their first priority must be response to acute medical problems. These agencies have expressed extreme frustration in not having time or resources to dedicate to preventive care.

Here is a partial list of those general areas in which preventive services either don't exist or are inaccessible to major portions of the population: help in stopping smoking, weight reduction programs, nutrition education, education in prevention of heart disease, hypertension screening, dental hygiene.

OBJECTIVES

1. Bring basic services for older people into the area.
2. Start a local information and referral system covering existing health and social services.
3. Follow through with nutrition education project in Windsor Southwest School District.
4. Set up blood pressure project for which plan has been made.
5. Develop and offer prenatal counseling and classes in parenting for mothers and fathers to be.

6. Make weight reduction and smoking cessation workshops available and easily accessible throughout the area.

7. Introduce aerobics program into school system as a healthy alternative to team sports (discussions begun by Dr. Bont with school athletic directors).

8. Find future sources of financing for the Good Health Center.

9. Continue to provide a local form through which high priority health problems and solutions can be explored.

10. Work with the University of Massachusetts team to test the Personal Life Health Plan and Health Hazard Appraisal as patient educational and motivational tools promoting healthier life styles.

More specifically:

1. To promote prevention and early detection of diseases and maintenance of health by providing a central site for existing well baby clinics conducted by the visiting nurses and public health nurses; weight-watching and stop-smoking clinics; special physician sponsored immunizations clinics; prenatal counseling; increased awareness to the effects of problem drinking or drug abuse; dental hygiene, and elderly feeding and day activities.

2. To develop public education programs in areas such as nutrition, obesity, smoking, hypertension, drinking, and drugs through the media, the schools, local organizations and at the central location of the Good Health Center. (A district-wide nutrition education plan is now under development, with school principals, nurses, hot lunch personnel, the school superintendent and Good Health Center representatives working together toward early implementation of a comprehensive program at the elementary school level.) We will work with such organizations as the Vermont Health Department, Lung Center, Heart Association, Planned Parenthood, Cancer Society, Agricultural Extension Service, Council on Aging and Southeastern Vermont Mental Health Services on education programs. We also intend to develop and offer for public use a library of health information stressing materials on nutrition, prevention of heart attacks, first aid, how to cope with minor and chronic illnesses at home and home and work accident prevention.

3. To promote optimal utilization of existing health care resources by coordination of activities, by communication between individuals and agencies serving any given individual or family or addressing a particular community health problem, by maintaining current information and referral for both physicians and the public on who is providing what kinds of care in the area and how to take advantage of it, and by building up as broad as possible a network of two-way referrals between providers of all kinds and the Good Health Center.

4. To maintain a forum within the community in which interested citizens and providers can continually evaluate and refine the list of problems which must be dealt with in our area—using information generated by area and state planning agencies, CHICV, the State Health Department, local household health surveys conducted by the Good Health Center, good lines of communication with area agencies and people using the Good Health Center.

5. To provide acceptable entries into the health system for the elderly and others through Title III and Title VII of the Older Americans Act programs, in which a nutritious simple lunch would be provided and in which participants also could cook, plan meals, talk, complain, get warm, play cards, discuss their health worries and problems with each other and qualified Good Health Center personnel.

6. Explore the possibilities of expanding the Good Health Center into a community-controlled Health Council whose job it will be to oversee the activities of the Good Health Center, to monitor the larger health system throughout area, to suggest priorities among problems to planning agencies and others in a position to solve them and to maintain contact with representatives of all major segments of the population.

7. To develop a plan for low cost physical exams to be implemented in Year 2, using The Health Hazard Appraisal developed at Methodist Hospital in Indianapolis. (See Attachment)* Dr. Lawrence Weed's Problem Oriented Medical Record and the Personal Life Health Plan developed at the University of Massachusetts, Amherst. (See Attachment)* Other innovative patient record systems, such as that being used in Addison County, also would be explored for possible incorporation into the Good Health Center patient record. The desired result would be a patient questionnaire/record system which also would serve as an educational and nutritional tool.

---

*See p. 246.

LOCAL RESOURCES TO BE COORDINATED AND OFFERED THROUGH THE GOOD HEALTH CENTER

1. EPSDT—to be developed, currently not available in the area.
2. Meals on Wheels, Day activities for senior citizens.
3. Well baby clinics, in cooperation with the Public Health Nurses in Chester.
4. Planned Parenthood, counseling only.
5. Problem drinking group counseling in cooperation with the Renaissance Center.
6. Stop-smoking clinics.
7. Nutrition Education programs.
8. Dental hygiene programs in cooperation with the local dentists.
9. Prenatal classes, in cooperation with Dr. Gene Bont of the Black River Health Center in Cavendish and Dr. Ralph Gause of the Ellsworth Clinic in Chester, and public health nurses.

TARGET POPULATION

The populations at risk and the generally underserved in Ludlow, Chester, Mt. Holly, Tyson, Reading, Weston, Weathersfield, Cavendish, Bridgewater, Plymouth, Andover, Belmont, Gassetts, Proctorsville, Perkinsville, North Springfield and Ascutney. The combined population of these towns is approximately 13,000.

METHODOLOGY

The Good Health Center will act as the sponsoring organization. It was incorporated as a non-profit organization in early 1975 with Dr. Gene Bont, the Office of Southeastern Vermont Community Action and Lydia Ratcliff as incorporators. An interim board of directors has been formed with representatives from the community which included both the public and the health professionals. This board will be replaced upon receipt of startup funding by a permanent board with appropriate representation from each of the communities it serves. The board members will serve without any stipend or reimbursement for out-of-pocket expenses until support funding for the Center reaches a level where reimbursement is warranted. A list of the current board members is included in the attachments, along with a list of other individuals who have been supportive of the Center.

STAFF

Coordinator.—With a background in public health, administration and community relations. This person will solicit the help and cooperation of agencies and organizations to offer their services at the Good Health Center and participate in the education programs, see that the programs are publicized and known to all who might use them. Also the coordinator will oversee and maintain standards for services offered by the Center and oversee the development of a long range program for research, review, monitoring and evaluation of the program. Lastly, the coordinator will seek continued operational funding for the Center.

Secretary-receptionist.—Will make appointments, keep records, greet clients, provide information and referral over the phone, be responsible for mailings, keep the books, keep track of patient education materials, and handle correspondence.

Health and nutrition educator.—To be a professional health educator or registered nurse who would be responsible, under the guidance of the Board, for developing and organizing and conducting a variety of classes in weight control, prevention of heart disease, first aid, new baby care and feeding, nutrition, prenatal counseling, and education in home management of chronic conditions. The educator will work closely with the cooperating agency specialists regarding mental and dental health.

Outreach worker.

EXPECTED RESULTS

A. *Nutrition education.*—During the 1976 school year, 100% of the students in grades K–12 will receive nutritional instruction via a plan now under development by the Good Health Center and the Chester-Springfield-Londonderry district.

B. *Elderly feeding.*—The Good Health Center plans to feed 20% of the Ludlow area senior citizens with nutritious meals and provide a similar proportion with a variety of services under Title III.

C. *Well-baby clinics.*—The Good Health Center will provide a site where public health nurses and visiting nurses can serve approximately 500 infants and children who are not now covered by the "well-baby" program.

D. *Blood pressure.*—The Good Health Center will set up several drop-in centers for the purpose of providing regular blood pressure checks for 25% of the citizens who are known to have high blood pressures.

E. *Weight watching.*—In its first year it is the goal of the Good Health Center to provide information and classes on obesity control to 20% of the overweight citizens.

F. *Stop smoking.*—A stop-smoking campaign will be conducted in cooperation with the Vermont Lung Center.

G. *Group counseling.*—The Good Health Center will work with Southeastern Vermont Mental Health to provide widows, problem drinkers, drug abuses, and other problems with counseling. There is no way to predict the number of people who will avail themselves of such services in the first year.

H. *Special classes.*—Will be offered as demand develops in first aid, cardiopulmonary resuscitation, etc.

EVALUATION

The Center will develop a statistical system to keep track of services performed by the Good Health Center, compare performance with original projections and measure the result in terms of improved health among the patient population.

CONTINUITY—LONG RANGE FINANCIAL PLAN

The Center plans to be self-supporting within three years, through these key avenues:

Revenue sharing and local fund-raising (only about 1% of revenue sharing funds in Vermont are going to Health and Welfare programs);

Grants from private foundations such as the Robert Wood Johnson Foundation, The Stern Family Fund, The Markle Foundation, The Turrell Foundation, The Windham Foundation;

Rational scheduling and overhead-sharing by existing agencies;

Federal grants for experimental Rural Health Initiatives;

Volunteer efforts.

We also hope to persuade Blue Cross-Blue Shield and other private health insurance companies to cover at least on a trial basis, some of the educational services offered (in some parts of our country Blue Cross-Blue Shield offers an impressive range of health education and preventive services). We anticipate, however, that it will take more than a year to persuade a significant proportion of the public of the importance of seeking and paying for preventive care and hope not to be forced into a position of poverty and compromise before this education program has had a chance to succeed.

Consolidated budget (12 months)

Expenses:	*First year*
Personnel	$54,720
Development	7,000
Operations	7,900
Communications	9,200
Program evaluation	3,500
Staff development	1,950
Health education	2,350
Total expenses	86,620

We plan to seek matching funds from:

1. The individual towns ($13,000 or $1 per capita)
2. Churches and civic organizations ($13,000)
3. Special fund raising projects such as raffles, sales, and auctions ($5,000)
4. Participating agencies and organizations ($10,000)

First year budget

	Fiscal 1976
Personnel:	
Executive director	$16,000
Health and nutrition educator	12,000
Secretary-receptionist	6,000
Outreach worker	8,000
Fringe benefits (16%)	5,120
Professional consultation	6,000
Subtotal	54,120
Development:	
Building (rent)	6,000
Furnishings and equipment	1,000
Subtotal	7,000
Operations:	
Insurance	1,000
Electricity	1,200
Fuel	1,200
Mileage (outreach, et cetera) at 15 cents per mile	4,500
Subtotal	7,900
Communications:	
Community relations	2,400
Telephone	3,000
Equipment and leasing	600
Postage	2,000
Office supplies	200
Subtotal	9,200
Program evaluation	3,500
Staff development:	
Transportation, meals and lodging	1,200
Registration fees	500
Subscriptions	150
Dues and memberships	100
Subtotal	1,950
Health education:	
Slide	75
Movie projector	200
Screen	75
Books, posters, pamphlets, subscriptions	2,000
Subtotal	2,350
Total	86,020

EXPLANATION OF BUDGET ITEMS

1. *Personnel.*—See list of staff above. Volunteers and agency workers—such as Planned Parenthood representatives Renaissance counselor and SEVCA outreach worker would be in addition to this list. An ongoing training program for all personnel is assumed. We are hopeful that a substantial amount of volunteer time will become available as the Center is accepted by the community. We intend to apply to CETA and RSVP for additional staff people.

2. *Development.*—We anticipate renting a centrally-located house in or near Ludlow with at least 6–8 rooms for use by the Center, plus storage space, parking space and garden space.

We hope to get primarily second hand and donated furniture and equipment through local advertisements and personal contacts.

3. *Operations.*—Insurance costs would include liability as well as fire, theft, etc.

4. *Communications.*—A considerable amount of advertising, "public relations" and other educational efforts are planned throughout the year—not just to alert the public to the Center's services and programs but also instructions in care for certain kinds of health problems (e.g., drugs, VD, smoking, nutrition). Major efforts are anticipated to develop good relations with local schools and to participate in the development of health education programs. We would expect to pay for about 2,000 miles a month in travel costs, at 15 cents per mile.

Postage is figured at about $6 a day for billings, general correspondence and educational campaigns.

We anticipate having a Vermont WATS-line and also accepting collect calls on the regular line as part of our "Hot Line" for information, referral and health information.

The approximate cost of leasing and servicing $2,000 worth of office equipment is about $600 per year. We anticipate needing a copying machine, mimeograph, a typewriter, a dictating machine, an inexpensive calculator and filing cabinets.

5. *Program evaluation.*—The cost estimate is very rough. It might include computer time, costs of conducting household health surveys in the area (we have a draft prepared), consulting fees and costs of drawing up reports on our experience.

6. *Staff development.*—We envision a program of continuing education and upgrading for staff members, including a limited amount of travel to workshops on preventive care, other projects and models, gatherings of specialists in certain areas of preventive care, and invitations to a few "experts" to visit and advise the Center.

7. *Health education.*—We would like to have the flexibility to explore a host of health education materials on an ongoing basis, and to invest in those materials (slides, props, written materials, books, movies, pictures, posters, tests) which appear the most effective. Our philosophy, however, would be to rely most heavily on good *teaching* rather than expensive materials.

ATTACHMENT

Some of the people who have been working on or supportive of the Good Health Center:

Peter and Elaine Rabow, Psychologists working with Mental Health Services of Southeastern Vermont, Inc.; Ludlow, Vt.

Fran Callahan, Director, Retired Senior Volunteer Program; Springfield, Vt.

Phil Dwight, Co-director, 5C Child Center; Springfield, Vt.

Ann Bliss, East Hill School; Andover, Vt.

Karin Hall, Student at Green Mountain Union High School; Chester Depot, Vt.

Dr. Evans Modarai, Dentist, Ellsworth Clinic; Chester, Vt.

Pearl Somaini, Director, Office on Aging; Montpelier, Vt.

Dr. Ralph Gause, Medical Director, Planned Parenthood of Vermont; Chester, Vt.

Paul Ippolito, Superintendent of Schools; Chester, Vt.

Mary and Raino Kalinen, Proctorsville, Vt.

Janet Manley, Chester, Vt.

Mrs. Fred Menander, Ludlow, Vt.

Janice McWilliams, Public Health Nurse Service; Chester, Vt.

Betty Smith, School Nurse at Flood Brook; South Londonberry, Vt.

Joan Morey, Teacher at Chester-Andover Elementary School; Chester, Vt.

Wilbur B. Hale, druggist, Chester Drug Store; Chester, Vt.

Stephanie Rowe, teacher, Andover, Vt.

Lawrence Boothby, teacher, Weston, Vt.

Charlotte and Donald McKinley, Andover, Vt.

Sidney Flum, nutritionist, Children and Youth Center; Springfield, Vt.

Peter Farrar, Instructor, East Hill School; Andover, Vermont.

Dr. Mary Lee Ingebar, Amos Tuck School of Business Administration, Dartmouth College; Hanover, New Hampshire.

Dr. Leona Baumgartner, Harvard Medical School; Boston, Massachusetts.

Dr. John McCann, President, Life Extension Institute; New York, New York.

Professor Richard J. Giglio, Department of Industrial Engineering and Operations Research, University of Massachusetts; Amherst, Massachusetts.

Dr. Gareth Green, Director, Vermont Lung Center, Burlington.
Aaron Fuchs, Vt. Department of Health, Burlington.
Peter Cobb, Whitey Bluestein of the Vermont Public Interest Research Group, Montpelier.
Sharon Frink, Public Citizen, Washington, D.C.
Dr. Mary Goodwin, Nutritionist, Montgomery County Health Dep't., Maryland.
Dr. Charles Ross, Interhealth, San Diego, Calif.
Carl Clark, Commission for the Advancement of Public Interest Organizations, Washington, D.C. (established by the Monsour Medical Fdn.)
Margaret Kuhn, Director, Grey Panthers, Philadelphia, Pa.
Lindsay O'Neil, Berlin Convalescent Center, Vt.
Dr. John Matthew, Martha Michaelson Health Center, Plainfield, Vt.
Roger Ciufo, Ass't. Principal, Green Mountain Union High School, Chester, Vt.
Rev. Robert Dick, Unitarian Church, Springfield, Vt.
Rev. Jerome Hevey, Congregationalist Church, Manchester, Vt.
Adele and Chips Calloway, Rescue Squad, Darset, Vt.

The Health Hazard Appraisal and the Personal Life Health Plan

The Health Hazard Appraisal is a recently-developed (at Methodist Hospital of Indiana, at Indianapolis, by a team of cardiologists and statisticians) means of assessing an individual's greatest risks to his/her own survival and estimating future risks of contracting every major known cause of death. It consists of a patient questionnaire exploring the factors contributing most directly to the risks facing individuals in a given age group (for example, family history of heart trouble, cancer, etc.; smoking and exercise habits; driving habits and seat belt use; presence of depression; weight/height). It calls also for data in these areas: blood pressure, cholesterol, triglycerides, forced expiratory volume, whether or not there has been an abnormal EKG within three years—most of which could be gathered by a non-professional person.

The questionnaire then goes through a computer (or it can be quite easily analysed without a computer) which produces a one-page report—or personal health forecast (sample attached) including the following information: the patient's actual age, his "risk age" (usually higher, based on the statistical/actuarial dangers presented by his living habits, family history, present symptoms, etc.), and his *achievable* age—if he is willing to make certain changes in his living habits and his physical condition. For example, a person may be 47 years old—but, have a risk age of 55 because he smokes too much, is 50 pounds overweight, gets no exercise, etc. However, with appropriate changes, this person could reduce the risks—and his risk age to, say, 49. (Some factors, of course, are beyond a person's control.)

The printout then lists specific moves a person can make if he cares to increase the probability of living longer: for example, reduce his cholesterol count, stop drinking and smoking, lose X number of pounds, exercise as directed by a doctor or counsellor, etc.

Finally, the report lists the top *specific* health hazards faced by a given individual—e.g. heart disease, suicide, stroke, pneumonia—along with specific recommended moves to reduce or eliminate each risk.

"Prospective medicine," using the Health Hazard Appraisal, goes on the assumption that it is better to deal with a prospective disease or condition either when the presence of a known cause of a disease (e.g., smoking) becomes evident or when you have simply arrived at the age or entered into an environment in which you are statistically "at risk". If you wait until symptoms of disease *appear*—either to you or through lab tests and physical examination—or until you actually become disabled by disease, it is very frequently too late to cure the problem—although most traditional medicine, including traditional physical examinations, is practiced in the middle and end stages of disease.

There is a mounting volume of concrete evidence that information and recommendations concerning personal health, presented to the patient in this manner, serves as a powerful means of dramatizing the dangers of sick lifestyles—in terms of increased health risks and reduced life expectancy—and of motivating individuals to make real changes. (Specific papers are being collected by the Good Health Center.) At a minimum, the approach at least puts many *choices* in the hands of the individual about his own health, which he can exercise in any way he wants.

The Health Hazard Appraisal is now being adapted in various ways in various places—for example, used as a means of conducting inexpensive "pre-physical

exams" in which precursors to disease rather than symptoms are identified and "treated." One of the most promising and imaginative adaptations is a pilot project at the University of Massachusetts, Amherst, under that institution's Health Care Systems Program.

A new tool developed at the University of Massachusetts is called the Personal Life Health Plan (PLHP)—described as both a document and a process for maximizing the good health of the individual. It establishes a doctor-patient partnership and invites the patient to study and *audit* his own patient record. It draws on Dr. Lawrence Weed's (Promis Lab, Burlington, Vermont) Problem Oriented Patient Record and a major study at The University of Vermont in which the investigators concluded that studying one's own patient record overwhelmingly *decreases* worrying (hypochondria) about one's own condition, that the vast majority of people studied became far more careful about the way in which they took medication, and that fully 78% reported that they had changed their patterns of living, eating or drinking after reviewing their own records.

In effect, the patient records and the auditing process lead to an ongoing "contract" between doctor (or nurse or health advisor) and patient, in which information and feedback are continually generated not only on illness and its treatment, but also on health *maintenance.*

The Personal Life Health Plan (the document) includes the following information:

1. A narrative statement describing the individual's background, current status and future goals—including factual information from the questionnaires and subjective statements by the individual concerning goals, aspirations, etc.
2. An expanded Health Hazard Appraisal—to include not only conditions and diseases which could cause death or severe disability, but also those causing discomfort and/or impairment—such as recurrent sprained ankles, upper respiratory infections, chonic fatigue, depession, vaginitis, accident proneness, overweight, overdrinking, insomnia.
3. A series of "contracts" between patient and health advisor including specific directions for compliance by the patient (the series to be updated periodically by the patient).
4. Information in POMR form on acute illness, including what is currently being done to manage each problem and a summary of past acute illness.
5. Family history (at least two generations).
6. Vital statistics table, periodically updated, including EKG, lab test results, immunizations.
7. A separate page on which conditions such as adverse reactions to drugs, allergies, disabling conditions are recorded by the patient, using information supplied through lab tests as well as from his own experience.

A preliminary PLHP form, including followup, has been tested on several dozen students and others in the Amherst area and a full-scale experiment is in the process of being launched.

Early findings strongly indicate that people *are* interested in possessing their own health record, and also that participants *are* receptive to using the PLHP.

Among the hypotheses which will be tested extensively in the now-unfolding "Phase II" of the experiment:

1. People will change their health habits as a result of the PLHP.
2. People will improve their ability to observe and report symptoms of illness.
3. Efficiency in using the local health system will increase.
4. Episodes of illness will decrease.
5. Patients' health knowledge will increase in areas of greatest relevance for their particular age group.
6. Internal motivation will increase.
7. Compliance with treatment plans for acute illness will increase.

Because the philosophy and goals of the Good Health Center are so close to those of the Personal Life Health Plan, the Plan's team of investigators (including a physician, a professor of industrial engineering, a research associate, a Ph. D. student and a health educator) has invited our group to participate in Phase II and wants to include us in grant applications to HEW now being made. We would have to cover whatever additional costs to participating physicians and Good Health Center personnel (The Health Educator) were incurred. The amount of the costs would depend, of course, on the number of participants involved.

STATEMENT OF DR. ANTHONY ROBBINS, M.D., BURLINGTON, VT.

A NATIONAL RURAL HEALTH SERVICE

Is it possible that our nation, which spends $547 per person in the health industry, cannot provide good medical care to rural America? The health sector of our economy has grown rapidly and unhaltingly. We now spend over 100 billion dollars annually on health—over 8% of the gross national product. There are almost 5 million employees in the health sector. Yet, despite our country's affluence and its mammoth expenditures on medical care, rural areas suffer. There just are not enough resources, well enough organized, to provide good care.

Can rural health problems be solved? This paper argues that all of the basic ingredients are present, but a new organizing principle is needed. We need to create a way for rural communities to join a National Rural Health Service funded by the United States Government. Technology abounds. Communications technology can provide rural areas with instantaneous help over long distances. Two-way television is a good example. Geographically dispersed elements of medical care can be held together electronically. New kinds of manpower—technicians, physicians' assistants, nurse practitioners—can be trained to fill almost any role in delivering medical care. Teams have been assembled, often proving far more effective than individual practitioners. Capital funds to construct offices, clinics, health centers and hospitals in rural areas have been available even when it was impossible to attract physicians. And transportation, the consistently most difficult problem in rural health, seems to be yielding to some inventive approaches.

But all the energy that has gone into research and demonstration projects in rural health is not enough. Rural areas still cannot compete with the nation's cities; increased expenditures have only widened the gap between urban and rural.

Congress is moving on two fronts to deal with the problems of health in America—planning and regulation programs and national health insurance. These will not do enough to help rural people. They are not likely to succeed in attracting physicians to rural practice. The National Health Planning and Resource Development Act of 1975 is intended to reduce expenditures on medical care, or at least to slow and rationalize their growth. The Act will lead to rules to deter unnecessary costs, but the new program will have little clout to encourage services where they are now lacking.

The history of national health insurance—both our experience with Medicare and Medicaid and programs in the Canadian provinces—is not hopeful for rural people. Insurance pays for services that are available. It has given poor people in cities the ability to buy medical care, but where resources are scarce, insurance has been less helpful. Because it only pays the bills, national health insurance is likely to further increase the disparity between the quantity of service received by city dwellers and rural Americans. What we need is a way to place the basic resources for primary care in rural areas; a dependable way for rural Americans to get medical care.

How can such a program be put into action? The Federal Government's support for health maintenance organizations and the National Health Service Corps offer some promise. Although neither works very well by itself, these federal programs do contain essential ingredients for a stable rural health system.

Health maintenance organizations or prepaid group practices grew up in urban areas where large employee groups with good health insurance coverage found that they could save money and improve their own medical care by contracting with an organized program to provide all services. Savings occurred when group practices developed ways to give good care outside of the hospital, thus reducing expenditures on the most expensive part of medical care—hospitalization.

Most health maintenance organizations have experienced severe difficulties during their marketing and start-up phase. It has been very hard to enroll enough members at the beginning to support the high staffing level that is needed to provide a full range of services. These problems are most serious in rural areas where there are no large employee groups and enrollment efforts must approach small groups or individuals. In addition the financial incentive is often lacking as rural areas already have low rates of hospital utilization. The people of Northeast Vermont, for example, use hospital services less than enrollees in the Kaiser Permanente program of Northern California—one of the most successful prepaid group practices.

For the last 6(?) years, the National Health Service Corps has been hiring physicians, dentists, and other health professionals to make them available to communities unable to attract such help in any other way. Even after Vietnam, when a military deferment was no longer offered by the program, many dedicated young doctors have joined the Corps. But neither the doctors nor the communities have been fully satisfied with the experience. In part, this is due to the rules under which the Corps has operated. Corps doctors have been expected to compete with other community resources; they must charge fees, generate income, and run conventional private practices. After the start-up period, during which the Federal Government covered any losses, the new practice was expected to survive economically and clinically in a situation that had failed to attract or hold a practicing doctor not in the Corps.

Despite the problems of health maintenance organizations and the National Health Service Corps, these two efforts could be combined effectively. A prepaid, organized program of health service and the use of federal resources to put manpower where needed are the guts of a rural health system. What is needed now is a commitment on two levels. The Federal Government must make health dollars available in rural areas. And rural communities must elect to participate in an organized rural health system.

How can rural communities choose an organized system?

The experience of health maintenance organizations and the National Health Service Corps suggest that rural regions must make a stronger and more explicit commitment to their health system. It is not possible to build up a system from scattered and uncoordinated components. The period of start-up is too long and the care during that time is inadequate and inefficient. There must be a tip-point, a way that a community can elect to have a complete and unified medical care system. There must be a referendum. By referendum, a rural region must be able to opt to create a unit of a National Rural Health Service. This would create a management unit like the urban prepaid group practice. It would have all of the organizational advantages that come from providing care for a defined population. It could use any of the new ideas in technology and manpower to make the services more effective or efficient. All services would be linked in a single program for all the people of the region.

How can federal legislation offer participation in a National Rural Health Service? A National Rural Health Services Act would perform two critical functions: It would combine many of the resources that now cost us $547 per capita, making a single fund available for the provision of rural medical care. It would set standards for any region wishing to establish a unit of the National Rural Health Service.

Almost all of the money now spent on medical care is channeled through organized payment systems. Many are tax supported—medicare, medicaid, the Veterans' Administration. Others are private programs—Blue-Cross, commercial health insurance, and employer health services. A smaller and smaller part of health dollars goes directly from the people to pay doctors and others for services. Out-of-pocket health expenditures now constitute less than $x\%$. Through a National Rural Health Service, the Federal Government will use the people's tax dollars to replace the inefficient and often duplicative payment mechanisms that now exist. Effective public health, primary care, and community hospital services are attainable for rural populations at a cost that is less than what most parts of the country are now spending on medical care. A National Rural Health Services would eliminate the fragmented financing that has discouraged adequate growth of health services in rural areas.

For each rural region seeking to establish a unit of the National Rural Health Service, the federal law would define a set of minimum standards. It would define what is meant by rural and thus which regions of the country would be eligible to hold a referendum. It would define a minimum range of services that must be made available to the people, and define the ways in which it must be demonstrated that these services are reaching the people and having the desired effect. Probably over 99% of the needed services could be performed by primary care units and general hospitals.

Finally, the Federal legislation would define the governance of the regional units. Units of the National Rural Health Service would be public corporations or units of government, and would have to demonstrate governance that is responsible to the needs of the people and accountable to the people for their performance.

This paper has offered a new solution for rural health problems. By allowing rural communities the opportunity to choose a permanent, stable, effective medical care system, the Federal Government can restore equal treatment to its rural citizens; equal access to essential health care.

STATEMENT OF DAVID WAGNER, EXECUTIVE DIRECTOR, PLANNED PARENTHOOD OF VERMONT, BURLINGTON, VT.

Thank you for your invitation to testify before this committee on this important subject of rural health care in Vermont. This testimony is a summary of our ten years of experience in organizing and delivering a vital health care service to Vermont women and men. We hope to testify in greater detail at the upcoming field hearings in Vermont. The following aspects, important factors in assuring success in any rural health care delivery system, are what we see as our major organizational successes and learnings in providing family planning services to the poor and young women of this state.

1. *Manpower (personpower) development and deployment.*—Planned Parenthood of Vermont is a health care system which in response to the increasing lack of physicians has moved to the use of alternative practitioners (nurse specialists, graduate trained nurse midwives, Medex trained physician assistants, women's health care specialists) who extend the reach of the doctors in our system. In addition, we have developed a team of over eighty Vermont women who with intensive educational support and clinical experience are trained as paramedical health care workers to provide the valuable services of laboratory testing and screening, contraceptive counseling, medical aide to practitioner, and patient education. This successful team approach of "lay" and professional people at the level of actual delivery is duplicated at the policy making and leadership level of our organization. This unique approach to health care delivery makes our organization more viable and responsive than more traditional systems.

2. *Innovative delivery systems.*—PPV has even family planning centers spread throughout our rural state, while creating administrative difficulties, guarantees services to even the most isolated sections of our state. Additionally, we have designed "mobile" clinic situations where a travelling team of specialized health care personnel are matched with local persons to provide an "instant" out patient satellite program. We use the modern technology of telephones to automatically connect our more rural regions with larger centers of population in order to provide emergency referral, medical information and scheduling of appointments. Our physical facilities are varied, functional and generally inexpensive—store fronts, houses, hospital outpatient rooms and municipal buildings. Finally, we do not define our style of delivery merely as a physical place but continually "reach back out" to our patients in a vigorous system of clerical patient follow-up.

3. *Consumer health.*—The patient is the focus of our program, especially the young and poor woman who is our main consumer target. Our clinics are designed to see as many as forty patients per session, but our interaction with individual patients is a one-to-one relationship which is guided from her own particular medical and social needs. We have developed a comprehensive family planning (problem oriented) medical record which allows the patient to actively participate in her health care.

4. *Education as a primary patient service.*—PPV operates from the philosophy that the individual herself must develop the ability and consciousness to protect, develop and nourish her own body and future health. Thus, we additionally define our role as teacher/facilitator beyond the traditional role of diagnostician and treatment technician.

5. *Private citizenry involvement.*—PPV is a voluntary private, non-profit organization. Our intricate network of volunteers around this state and other private resources provide an effective and efficient base from which to deliver subsidized family planning services.

6. *Structure.*—PPV has carefully put together a structure composed of a centralized administrative office (with computerized information systems on patient data, and fiscal data, and skilled management personnel) and regionalized centers (with skilled management personnel whose function is to recognize the uniqueness of their service areas and positively influence the administrative office). PPV believes this centralized/decentralized balance is essential so that the smaller rural communities will not be lost in the shuffle of the "numbers" game of public health in America.

7. *Change/Diversification/Adaptation.* There is no classic standard model for rural health care. The problems of logistics, population spread, distance, lack of highly trained personnel, and an impoverished constituency defy simple solutions. In fact, our own models of service delivery have undergone substantial changes in the last year and the challenges on the immediate horizon make fur-

ther movement inevitable. Planned Parenthood of Vermont holds this process or expectation of change (monitor, evaluate, alter, expand) as a fundamental part of developing the science of rural health care.

We hope that this summary is useful to your group. We feel that our system as well as its components may be adaptable for use in other rural areas. We hope that further exploration of what we are doing in Vermont during the field hearings will be helpful to your committee.

Possible avenues for Congressional involvement in promoting adequate delivery systems in rural America are:

Focusing on the unique aspects of rural health care through the promotion of legislation for pilot projects using the extensive experience and expertise found in rural deliverers of health care;

Channeling funds directly to rural areas rather than through urban areas;

Higher per capita funding to compensate for population spread;

Revision of current health care legislation to allow for the use of non-M.D. personnel in delivery of service; i.e. Title XIX funds may only be used if the service is delivered by an M.D. or if an M.D. is physically present during delivery of service;

Assuring that future health care legislation allows for the use of non-M.D. personnel; and

Promoting service systems large enough to take advantage of modern management techniques and tools which at the same time have community units close to and responsive to consumers.

We appreciate the opportunity to share with you our experiences and support your efforts to assure adequate health care to rural areas.

STATEMENT OF DONALD R. SUTTON, DEAN OF STUDENTS, SAINT MICHAEL'S COLLEGE, WINOOSKI, VT.

St. Michael's Rescue Squad has been providing ambulance care to residents of rural Vermont since 1969. Its objective is to provide the best in emergency ambulance care, as well as to provide rescue services. The squad is composed, for the most part, of highly trained, volunteer students from St. Michael's College. The students must be certified in both standard and advanced Red Cross first aid, and all must take a course in external cardiac massage offered by the Vermont Heart Association. In addition, the majority of the squad members have also completed a 100-hour course in emergency care offered by the Vermont State Health Department.

The volunteer squad covers a large portion of Chittenden County, a district assigned by the State of Vermont. This area includes Winooski, Williston, St. George, Hinesburg and a small portion of Colchester and Essex Junction. The district has a population of about 17,000 people, and the number of patients served each year has increased steadily as the residents become more accustomed to, and aware of, the squad's services.

This past year, the squad answered over 900 calls. In an effort to increase awareness of the service, the squad recently conducted a door-to-door campaign throughout the district, distributing telephone stickers with the squad's number on them.

The squad members have the training and equipment to handle almost any emergency, providing vital life-support functions while transporting the patient to a nearby hospital, where definitive care can be obtained.

The very nature of the squad's operation is coordination of its services with those of other health care services. When a person is injured or becomes acutely ill in a rural area like that served by the squad, he must often be transported a long distance before he can receive hospital care. Whether or not ample emergency care is provided during transportation can often mean the difference between life and death. The existence of trained Rescue Squads like St. Michael's gives the rural resident an increased opportunity for the hospital care which he needs and deserves.

In addition, St. Michael's Rescue Squad provides a unique service; it has been designated as the ambulance service for the Vermont infant-mother high risk transport program. Under this program, critically ill, premature infants from all over Vermont are transported to the intensive care nursery at the Medical Center Hospital of Vermont in Burlington. In many cases, Medical

Center Hospital is the only facility in the state capable of providing the specialized care which is vital to the lives of these infants.

Quality of service is controlled by review sessions held three times each month at area hospitals. In these sessions, emergency calls are reviewed and discussed among doctors, nurses and rescue squad members. In addition, each squad member attends a 4-hour training session every week where emergency care procedures are taught and reviewed.

Despite the fact that no squad member receives any money for his services, the cost of providing these services is still approximately $7,000 per year, yet, no patient is charged for the services. The squad supports its operation by soliciting donations from those served, and through various fund-raising activities, such as bottle drives, raffles and even a radio telethon. In addition, the squad occasionally receives Federal funds through the Department of Transportation.

As is nearly always the case, Congress can best promote rescue services in rural areas by providing funds for their continued operation. The residents of these rural areas simply cannot afford to support the entire cost of these critical health care services. Federal Grants provided through the Department of Transportation have helped immeasurably in instituting these services and in supporting their continued operation. It is an unfortunate paradox however that while the need for and the costs of the Rescue Services have increased tremendously, the available Federal funds have been reduced. An increase in Federal funding for Rescue Service in rural areas would insure their continued advancement; yet to continue to reduce this funding threatens the very existence of the free, rural rescue service.

STATEMENT OF JEAN B. MILLIGAN, ED. D., DIRECTOR, SCHOOL OF NURSING, UNIVERSITY OF VERMONT, BURLINGTON, VT.

The University of Vermont School of Nursing plays an indirect role in helping to meet health care needs in rural Vermont. The mission statement of the School testifies to three aspects of that role: provision of quality nursing education at the collegiate level, leadership in developing educational opportunities for nurses, and leadership through participation with nursing and other health groups in influencing delivery of health care.

The School of Nursing has an enrollment of 470 students in its two major programs, the associate degree (120 students) and the baccalaureate (350 students) with 60 percent coming from Vermont. It expects to graduate 133 this May, 50 with A.S. degrees and 83 with B.S. degrees. Many of the students as graduates return to their more rural home communities to function in hospitals and other agencies. Others (both Vermonters and out-of-staters) who leave the State temporarily, return after a period of professional experience and in some instances additional educational preparation. Still others would like to work in the State but are forced to seek employment elsewhere due to the lack of budgeted positions, a situation made worse by the present economy. The availability of well-prepared nurses who are willing to work in the more rural areas of the State where salaries tend to be lower, cannot help but upgrade the quality of care. Graduates of the baccalaureate program are especially prepared to function in the community and during the program have had an opportunity to participate in learning experiences which emphasize the health needs of rural Vermont. Unfortunately due to costs related to the experience, only a few have an opportunity for placement in rural settings. Several students have expressed interest in working in rural nurse clinics in communities where no health care facility was available previously and some as graduates are working toward that goal. Thus by providing a pool of nurses to function in the State, the School plays an important though indirect role in providing health care to rural areas of the State.

There is a tremendous need for nurses employed in the State (many of whom graduated from nursing schools more than 15 years ago) to have an opportunity to participate in educational programs to update their knowledge and skills. A questionnaire survey conducted by the Vermont State Nurses' Association in 1971 revealed that half of the respondents had not participated in any educational program in a two year period and another 30 percent had minimally participated. Major reasons given for not attending educational programs were: none were available in area of interest, programs which were offered were too

far from home, cost was prohibitive and home commitments interfered. Nurses identifying the first two reasons were no doubt situated in small or rural communities. The School of Nursing is well aware of this need and within its limited resources provides some educational programs and cooperates with other agencies in providing additional ones. Nurses in the State are interested in updating their knowledge and increasingly are willing to pay for it. For example, a May workshop sponsored by the School attracted 120 registrants when 100 had been the initial enrollment limit. At least half of the participants were from outside Chittenden County, with many from smaller hospitals in more rural communities. In spite of the combined efforts of many groups, we do not begin to meet this need in the State—a need that is directly related to the quality of care received in many communities in the State. A need which will require additional funding to support.

One of the Continuing Education Programs offered by the School which has the greatest potential for improving the quality of the State's rural health care is the Family Nurse Practitioner Program, funded by a three year federal grant from the Division of Nursing, HEW since 1974. The second class of 21 students is currently enrolled and 18 students completed the program in September, 1975. The forerunner of this program was the Adult Nurse Clinician Program sponsored by the Burlington Visiting Nurse Association, Inc. and the School of Nursing and funded for one year (1973–74) by RMP. A copy of the *Catalyst* issue describing that program is enclosed.

For sometime it has been documented that nurses in ambulatory settings have not been utilizing their expertise to the highest level, and that the majority of consumers seeking health care on an ambulatory basis did not require the type of care that the physician's expertise provided. It has been documented further that to upgrade the quality of health care received, more time and effort must be given to the management and monitoring of chronic illnesses and to the provision of continuity of care; that entrance into the health care system must be made easier; and that the family as a unit rather than the individual, should receive care.

In Vermont, the Family Nurse Practitioner Program gives nurses an opportunity to build on their basic nursing education so that in turn the needs of the consumers of health care can be met. Thus the purposes of the program are to offer a continuing education program to:

(1) Update knowledge and skills necessary for nurses to possess in order to function as a primary care giver to individuals and families in collaboration with other members of the ambulatory health care team.

(2) Explore ways in which the vast numbers of interactions which comprise medical service to the family, as the unit of service, can be converted into a system whereby the acts can be measured objectively.

Through this program nurses are prepared to function: 1) in areas where there is limited primary care available. They provide service in collaboration with physicians who are physically present or at some distance; 2) in areas where medical needs are being met. They will provide "health care" and increase the quality of care by collaboration with many disciplines.

The program aims to recruit nurses who reside in rural areas and work in settings such as home health agencies and physician practices.

When the role and responsibilities of one member of a health team is realigned, it necessitates the realignment of the roles of others. Therefore team sessions and site visits by the nurse and physician coordinators are built into the program.

Students in the first class in the program came from the following work settings and for the most part have returned to them.

Home health agencies.—Two (one primarily caring for clients in low-income area of Burlington, one caring for patients diagnosed as having cancer).

Physician practices.—Three (one giving primary care in office of specialist in Burlington, one providing primary care in collaboration with doctor in a low per capita area, one with doctor in U.S. Public Health Service in rural community).

Nursing division of health departments.—Vermont and New York—two (both serving in rural areas).

Coronary care units.—Two (both providing support to families, teaching patient and family to adapt to chronic illness).

Specialty clinics.—Two (both providing primary care and follow-up care of chronic conditions).

General outpatient department.—One.

Outpatient department and hospital based home care of Veterans Administration center.—One.

Emergency room of community hospital.—One.

College health services.—Two (one providing primary care to larger rural community surrounding college).

Women's health center in area with limited gynecological services.—One.

Honduras.—One (preparing to go back to work in rural areas of Honduras).

The outreach of the program is exemplified by the Veterans Administration Hospital which has had a nurse enrolled in each year of the Program and also in the mini course on Extended Assessment Skills in order to implement a plan for providing care to patients with chronic illnesses. The plan utilizes the nurse as the Primary Care Giver for patients with chronic illness because of her stability and expertise in helping the patient and family adapt to stresses in their life and provides the decentralized Outpatient Department with medical back-up and consultation.

[From the Catalyst, Health Resources Development, Inc., August 1975]

NURSES TRAINED FOR EXPANDED ROLES IN PRIMARY CARE

"Face it, we're not going to get the isolated MD out there in the boonies doing his thing; nor should we expect it," says Elizabeth Davis, RN, Director of the Visiting Nurse Association, Inc., in Burlington. "We have to extend the system via the nurse practitioner who would have a tie in to a physician/practice for diagnosis and treatment. The main thing is: help the patient get through to a continuum of care." Back in October, 1972, convictions like these sent Betsy Davis to the Northern New England Regional Medical Program with a proposal to train nurses for expanded roles in primary care settings.

The original proposal, funded as a mini-grant for $2000, permitted the VNA to evaluate a trial project conducted the year before in conjunction with the UVM Department of Community Medicine. This pilot had focused on care of the chronically ill. Says Mrs. Davis: "So many of the chronically ill are homebound, and their lack of mobility, their isolation, can mean they drop out of the health delivery system." She notes that the trial run helped the VNA identify what needed to be done, and the mini grant permitted the agency to ask questions about further development. The result? In December, 1972. NNE/RMP approved an expanded proposal written by the VNA and the UVM School of Nursing, funded the proposal for $25,000, and helped set up an advisory committee.

Initially, the proposal had called for a family nurse clinician program, but in the spring of 1973, the advisory committee suggested limiting the content to care of the adult. Given the budgetary restrictions, if quality were to be maintained, scope had to be narrowed. The resulting Adult Nurse Clinician Program, designed as a twelve month, "on the job," continuing education course, included 188 hours of the adult. Given the budgetary restrictions, if quality were to be maintained, guided independent study time in the learning lab at the School of Nursing. The University had agreed to donate facilities; RMP money would pay for materials and for instructors and preceptors.

Plans and procedures had firmed up by the summer, and in October, the clinician program enrolled its first class: 17 nurses, all but one of whom came from ambulatory settings (the exception was from an in-patient psychiatric hospital). Ten of the participants were from Home Health Agencies; five were from clinic or physician practices. One came from the Chronic Illness Control Division of the Department of Health; another was involved with home training for dialysis patients. One year later, in October, 1974, 14 of the original 17 had successfully completed the course.

Before the Adult Nurse Clinician course came into existence, says Mrs. Lyn Rothwell, a nurse practitioner with Burlington's Given Health Care Clinic, "Vermont had no system for expanding the role of the nurse. Unless she received instruction in a specific area under a specific project—the way Coronary Care Unit nurses had been trained—there was no way locally for her to become a nurse practitioner." The VNA project was definitely answering a need, but RMP funding had been for just one year. In the spring of 1974, encouraged by the success of the course and knowing it should be both extended and expanded. Betsy Davis and Janet Brown, RN, of the UVM Department of Professional Nursing, decided to submit a proposal to the Department of Health, Education, and Welfare. Mrs. Brown had been coordinator for the Adult Clinician Program.

The new proposal, approved in June, 1974, and funded for $220,000, established a course to train family nurse practitioners who would be skilled in pediatric and geriatric care as well as adult care. Like the earlier program, the family nurse course is designed as "on the job," continuing education. The course also spans the same number of months: twelve. But, because its scope is broader, the family program consists of two and a half times as many hours: 448 in contrast to 188—304 hours of didactic content, and 72 hours each of guided independent study and supervised clinical experience. Scheduled to be in operation for three years, the Family Nurse Practitioner Program has already enrolled its first class of 18. These registered nurses, half of whom have baccalaureate degrees as well, entered in September, 1974, and will complete their work in September, 1975.

"What we're doing through the program is realigning the roles within a health care system," states Mrs. Brown. "We're putting major input into one role, but all the roles will have to change as a result. The people involved have to agree from the outset that they want the *system* to be realigned, not just the nurse." To accomplish this, the program uses what Mrs. Brown calls "a multifacet contract." The application asks the nurse to describe her goals: what demands are presently made on her, what she thinks will change because of the course. Equally important, however are the questions addressed to the other people in the nurses's health care environment. Is the physician willing to accept his role as guide and preceptor? Will he help the nurse expand her role and support her educational needs? What of the nursing supervisor? Will she help, too? "This way," Mrs. Brown explains, "communication is set up. Later, if the nurse comes back and says, for example, that she is not being utilized differently, we can go to the members involved and point out: 'You said you wanted this. What is hampering the process of change?' "

To facilitate realignment of all the teammates, the Adult Clinician Program had established a series of site visits conducted by Mrs. Brown. Also produced during the time the course was in session were five physician/nurse panel discussions. Broadcast over the Interactive Television Network, the panels—which included nurses in the course, instructors, and administrators as well as physicians—were shown to an average audience of 36 people. The Family Nurse Practitioner Program also uses site visits and Interactive TV, and, following its predecesor, requires that students in the program already be employed in an ambulatory setting or Home Health Agency which can use the skills the nurses will be learning.

The Family Nurse Practitioner Course, like its forerunner, is part-time. (32 days in each of two semesters plus two days the following fall for audit). Because of the program's employment stipulation, the participant's colleagues at home have an opportunity (in the off days) to help her grow and change—and change, themselves. In fact, it will take, according to Mrs. Brown, at least a year of post-formal education before the new nurse practitioner will be able "to niche out a viable role." Thus, it is especially important for her to return to "a setting where a trust relationship between the nurse and the physician has been somewhat established beforehand."

The employment requirement has still further implications. It might be true, as Betsy Davis suggested, that the nurse practitioner can alleviate some of the problem with maldistribution of health "man" power in rural areas. Mrs. Brown points out, however, that the conditions (such as feeling isolated) which make it difficult to persuade physicians to go "out there" also apply to nurses. According to Mrs. Brown, to alleviate the problem, continuing education programs should "reach the people who are already living in the small communities and committed to them, people who have the basic ability that we could expand on and add to."

Designing a continuing education program like the Family Nurse practitioner course meant "looking to see where the holes were in the medical delivery system," comments Lyn Rothwell (she helped Davis and Brown design the curriculum). Two gaping holes were found: the problem of patients not knowing how to gain access to medical care, and the problem of follow-up and management of chronic problems in the patient population. To address these problems, the nurse in the Family Nurse Practitioners Program develops skills in physical assessment so that she can determine the "abnormal." Can the nurse take a history, decide about care required, and refer the patient if necessary? "The nurse practitioner is an advocate of care. She must show the patient *how* to make entry, not just say that referral to such-and-such a facility or specialist is indicated," Mrs. Davis says. "Sometimes the nurse practitioner will even make the call herself."

Nurses in the course also learn to do a general screening and evaluation of specific problems. Says Mrs. Brown: "Too many people think that extended physical assessment skills are the end all of a nurse practitioner course. They're not; they're just the tools." In ambulatory care, being a nurse practioner requires gaining a perspective on the patient in the totality of his home environment. The goal, especially in chronic care, is to help the patient maintain an optimum level of function. Total assessment affects every aspect of the patient's situation: the social context of his life, his economic status, the psychological consequences of his illness—all these in addition to his physical condition.

For example, when the nurse practitioner extends care to the chronically ill, homebound patient, she will deal with matters of nutrition and look for skin breakdown; she could be the first to catch early pneumonia or note a problem with diarrhea or constipation. She might suggest motivational activities or be aware that physical or occupational therapy is indicated (and at the same time provide care for specific physical conditions the illness presents). "Too often in chronic situations," comments Mrs. Brown, "the illness is diagnosed, a treatment regime is set up, and then as soon as the patient is stable, he is sent home and remains essentialy out of touch until a crisis arises. With her knowledge of the whole person—his life style as well as his illness—the nurse practitioner can monitor the illness and its management, note how well the patient is coping and intervene *before* a crisis." In acute care, the nurse practitioner is often apt to confront a different sort of challenge. Lyn Rothwell says that "the nurse in the clinic is a 'jack of all trades.' You do everything but cut people open in a general practice. You run the whole gamut of episodic problems and chronic ones, too."

One point in particular deserves to go "on record" in this *Catalyst*—a comment of Betsy Davis, made in passing, but important: "There's a need for continuing education for all! No matter who they are, where they function, or at what! Right from the outset of the Adult Clinician Course, the VNA was setting up post-course continuing education plans. In November, 1973 (when the course had been in progress just one month), Betsy Davis submitted a proposal to NNE/RMP which outlined activity in three areas. Mini-courses were proposed to help nurses in all sort of settings learn extended assessment skills. Units on geriatrics, pediatrics, public health, and family planning were designed to help adult clinicians (those in the VNA course and others) broaden their scope of practice. The third facet of the proposal asked that funds be made available for a repetition of the original Adult Clinician Course.

Of the three facets, one went quickly into effect: the mini-courses. The other two were transformed into the HEW Family Nurse Practitioner Program. But the original 14 adult clinicians were not forgotten. An RMP grant for $12,000 permitted staff from the VNA and the School of Nursing to devise specialized units in the subjects mentioned above, and the units were scheduled and ready to go in September, 1974. Unfortunately, implementation had to be postponed. Mrs. Brown explains why. "Because of the economic crunch within the state, the nurses could not be released from their jobs or have their salaries paid while they were studying. So we're revamping the components. The program is now designed to be done on more of a part-time basis. It will also be offered over a long period of time and be developed in such a way that some of the units would be appropriate not just for the adult nurse clinicians but for other professional groups as well." Target date for the revamped units? September, 1975.

St. Johnsbury Health Center Serves Children in 18 Communities in Area

In 1969, when nurses from the Caledonia Home Health Care Agency (CHHCA) began to do medical exams for Head Start Children, they discovered that care provided to children in the service area was characterized by constant fragmentation. According to Mrs. John Blankinship, Nurse Director of CHHCA, "the children were getting their maintenance health care one place and their crisis care someplace else." Furthermore, a high percentage of the children with problems came from medically indigent, socially disorganized families.

"We had an idea," says Mrs. Blankinship, "that using a nurse in an expanded role could help serve these children's health needs. Certainly, the nurse could be used fully in well-child clinics." The CHHCA was also sure of another point: If the nurse were going to function well in an expanded role, she would have to be under the close preceptorship of a physician. "Rather than force the nurse to relate to several different clinic situations, and physicians," Mrs. Blankinship explains, "we decided to centralize care—bring sick and well care together and have the nurse work with a single pediatrician."

In late 1971, CHHCA submitted a proposal to the Northern, New England Regional Medical Program (NNE/RMP) which called for seed money to start a Child Health Center (CHC). The proposal was funded for $21,547 in the spring of 1972, and the center opened in October of that year. Subsequently, additional awards raised the total to $63,667. Its goal? To provide comprehensive, ambulatory pediatric services for the medically indigent preschool children and their siblings living in 18 towns near St. Johnsbury. These towns form a discrete geographic area and gravitate toward "St. J." for health care.

In its first year of operation, CHC enrolled and cared for 348 children from 160 families. Fifty-five percent of these families had incomes between $3,500 and $5,000. Key to care from the outset was the nurse practitioner/physician team. During the four months prior to the opening of the center, Bonnie Griffin, a pediatric nurse with the CHHCA, went to Bunker Hill Health Center, Charlestown, Massachusetts. There she completed an intensive pediatric nurse practitioner program. (Bonnie had co-authored the CHC proposal with Joan Blankinship.) Part of Bonnie's PNP study included a preceptorship under Dr. David Toll, a pediatrician with a private practice in St. Johnsbury. When the Child Health Center opened, Dr. Toll agreed to be its medical director (he maintains his private practice, too). Bonnie became the center's PNP.

When the center first got funding from RMP, its staff planned on two or three years for development. "Then, eight months after we'd started, the roof fell in," says Mrs. Blankinship. "Phase-out had hit RMP. Nonetheless, in 1973, NNE/RMP found funds to tide us over as we busily looked for other sources of revenue. We telescoped our development plan into 18 months, and we put together little pieces of funding: some money from the State Department of Health, some from income funds." Then, in early 1974, the Child Health Center received a grant of $9,000 from RMP to be used for staffing and evaluation purposes. The CHC was aiming for designation as a Children and Youth Project (C & Y) and needed to include a completed evaluation as part of its application to the Department of Health, Education, and Welfare. "If RMP hadn't been there, hadn't kept encouraging and supporting us," says Mrs. Blankinship, "we'd never have been designated."

HEW approval came in May, 1974, with an initial grant of $85,000 for fiscal 1975 and options for future funding, as well. "When we received C & Y status, our philosophy and procedures remained the same, but our services expanded," states Mrs. Audrey Poole, RN, M. Ed., nurse coordinator of the St. Johnsbury center; she assumed full-time duties as C & Y coordinator in September, 1974. The C & Y Project is subcontracted to CHHCA through the State Department of Health which administers the grant. "Now it's possible to cover lab fees, hospital X-rays, and medications." Mrs. Poole adds. HEW funds have also paid for renovation of the CHC facilities, located above Dr. Toll's St. Johnsbury office. Now that renovations are completed, Mrs. Poole expects the project to be able to take care of 800 children. "By March, 1975, we had 466 children enrolled. They came from 187 families. Numbers are increasing steadily."

C & Y designation means project staff can enroll not just preschool children but those from infancy through age 12. Eligibility for complete care, as determined by C & Y guidelines, is based on a net family income of not more than $5750 (with an additional allowance of $750 for each child under 21 living in the household). Center staff members describe the program as care of the "whole child." The intent is to make an impact on the health care of the family, to replace approaches that may have been episodic, fragmented, and illness-oriented with a *system* of health maintenance.

Mrs. Blankinship thinks the basic challenge to health care in St. Johnsbury is more a matter of access to services than a matter of availability. But helping medically indigent families gain entry into the system is no mean feat. Staff at the project mentioned that these sorts of families are not apt to participate in established, low income neighborhood groups. Several families known to staff members are no longer living in single households because of the current economic crunch. Instead, they have moved in with other families, forming enclaves of blood relations or friends. This type of family, according to the staff, is not always eager to embrace comprehensive, centralized health care. Medically indigent people typically seek care only in acute situations, and parents in this category usually take no initiative for getting their children annual check-ups or developmental testing. They also often need help filling out welfare applications or getting referred to social agencies in a position to help their children.

How do families such as these find out about C & Y Project? "Word of mouth, essentially," says Mrs. Poole. People who are satisfied with the care they receive recommend the center to their friends. Other agencies (Planned Parenthood,

Mental Health, Public Health) will also suggest C & Y when referral is warranted. So will the schools. And the center, itself has an outreach worker, Jane Conly. She researches each newly enrolled family, explains the program, and gets data on the child. Jane also initiates contact on occasion. She will go and knock on doors and make referrals on her own if she sees a family in need.

Mrs. Poole believes that she and her colleagues are strong enough advocates to create a change no matter what sort of situation might arise. "Our professional staff has enough influence and involvement in the community," she says. "We would have a mechanism to deal with whatever might come up." She also points out that the staff's personal as well as professional interests are involved. Bonnie Griffin grew up in St. Johnsbury, and Sara Simpson, the center's other PNP, is from the area. Dr. Toll has practiced in town for twenty years. "He knows the families, has served a couple of generations of children," says Mrs. Poole (she is from Brattleboro). "In the city, people come in from the suburbs to try to effect change. In a small town, all levels of society are interrelated. Poverty is not a mask to people in small towns. We meet each other in stores, on the street, in church. Here our poor are among us."

Mrs. Poole says that "the staff tries to make all procedures of care as casual and easy as possible. The question is: can the families fit in without being encumbered by bureaucracy? We hope so." Helping to achieve that goal is Office Manager, Loreen Weichert. She keeps the records straight. Each patient's record contains three types of information. Background material—from the master problem list, the patient profile, the medical history (from conception onward) and the health review (whatever the parent *perceives* as a problem)—provides staff with a comprehensive perspective. Data prone to change are gathered on the patient's flow sheet, on records of test results, and on immunization cards. Progress notes are also kept: on each well child and episodic visit and on each meeting the social workers conduct. A third component of the records is the parent approval waiver. Every family signs a release of information form (to facilitate referrals) and a statement agreeing to treatment and services. The center, for its part, agrees to ask for parental authorization before any outside work is done: hospital lab tests, glasses. . . . This record system helps staff stay on top of each patient's health needs.

Each Tuesday, for instance, all new patients are discussed at the center's health assessment review. Here the records have practical application, but the approach of the staff is human not technical. Present at the meetings in addition to regular personnel is Robb Schmidt, Ph. D., from Northeast Kingdom Mental Health, the center's consulting psychologist. At these weekly meetings, the staff trades ideas back and forth and gains insights into the families whose children are enrolled. Another key concern at health assessment review is the level of care to be assigned each new patient. There are seven possibilities. Those in the process of being screened or those with a short term problem (like lice) would be considered a level #1. Level #2 would indicate long term conditions such as obesity. Patients whose levels are changing are also brought up at the review session, and so are families who have already received initial assessment. All those enrolled come up for periodic review. Reviews, staff meetings and recordkeeping are afternoon tasks. In the morning appointments are scheduled. The center sees maybe 15 to 20 patients a day.

Bonnie Griffin says she likes the emergent situation in pediatrics. "You have to be one step ahead, on top of it all the time. Most situations turn out not to be serious, but each one could have been. A child can go to a nap well and wake up with a fever of 104°. It can be a cold one day and meningitis the next." On the other hand, says Sara Simpson, a UVM nursing graduate who completed the PNP course at Northeastern in June 1974, "chi'dren get better so quickly. Watching children get well is one of the neatest things in pediatrics."

Bonnie adds another distinction about pediatrics, pointing out that the child is usually unable to describe precisely what is wrong. "You have to rely on someone else's observations. Often, this is over the phone." How does Bonnie know what to do when someone calls? "I ask myself, how observant is the mother? Is she level-headed? How well do I know the child? Then, based on the presenting symptoms and my knowledge of the family, I make a decision."

To receive PNP status, Bonnie (and then Sara, two years later) traveled to Boston each week for four months to attend a day and a half of classes. "I'd go down in the morning on Wednesday, go to classes in the afternoon and all the next day, and then drive back on Friday," says Sara. The classes were only part of the program, though. Bonnie makes it clear that the rest of the learning

took place at the Child Health Center with Dr. Toll as preceptor. The women both acknowledged that pedagogy and improved physical assessment skills had contributed substantially to their ability to perform as PNPs, but they said the essential difference between being a traditional RN and a PNP was more a matter of changed attitudes than improved skills, *per se*.

"Your success depends on your perception of what you are as a PNP. The way you process the information you get from a patient is a 180° turn from the way you would do it as a traditional RN," Bonnie insists. "If this turn doesn't take place, you don't make it as a nurse practitioner." Sara elaborates: "Instead of approaching a patient to get information in order to pass it on, you're getting the information to digest it yourself and then act on it."

Audrey Poole calls the two PNPs "the hub of the C & Y Center. They screen everyone. Care radiates from them like spokes of a wheel to the other members of the staff." Commenting on that, Bonnie says: "Nurse practitioners like to get where the action is. They're doers." Sara says: "In training, you get sick of hearing about role change—all that talk, going at it from every possible angle, but maybe, in the end all that talking was important. You don't realize until you're done and back in practice what a big change you actually have gone through."

STATEMENT OF DR. WILLIAM H. LUGINBUHL, M.D., DEAN, DIVISION OF HEALTH SCIENCES, UNIVERSITY OF VERMONT, BURLINGTON, VT.

Recently you wrote me of your intention to hold hearings in Vermont on the subject of rural health care delivery. It is my understanding that during these hearings you will primarily concentrate on model systems which have been developed in Vermont as opposed to collecting further information on the general problem and its causes.

The College of Medicine faculty are participating in several such model programs. The Department of Family Practice, Chaired by Dr. Edward Friedman, has developed a facility in the Town of Milton, and is actively planning additional facilities elsewhere in the state. The Department of Medicine in addition to cooperating with the Department of Family Practice, has developed programs for the promulgation of problem-oriented medical care under the leadership of Dr. Henry Tufo. Dr. Jerry Lucey of the Department of Pediatrics has developed an outstanding state-wide program related to high-risk pregnancy and neonatal mortality. I believe that you have already contacted these three men and that they plan to personally describe their efforts before your Committee. Frankly, I think this is a better approach than having me relay the information secondhand.

I do hope that in reviewing these programs and others, some of the problems that they face will be brought out. Some of these problems appear to me to have been caused, or at least compounded, by current Federal policy, and thus are potentially amenable to action by you and your colleagues. I refer in particular to the problems of specialty distribution of physicians and geographic distribution of physicians. The problem of specialty distribution of physicians is related to the fact we are training large numbers of specialists and subspecalists, and inadequate numbers of family physicians who can best meet the needs of rural areas and inner cities. Unfortunately, our present system of paying for residents encourages hospitals in perpetuating this imbalance and actively discourages the training of family physicians. Similarly, since specialty care is relatively more lucrative, young physicians are discouraged from entering the primary care areas, and in particular from settling in rural areas. Because the Federal Government directly pays for a large portion of patient care, and indirectly for a large amount of the residency training in this Country, both of these problems would be amenable to your action.

All of us are very pleased that you are holding hearings in Vermont. I do hope that you will be favorably impressed by what you learn of the programs developed by our faculty. If I may assist you in any way, I will be happy to do so. Unfortunately, the problems of rural health care delivery are complex and are not amenable to simplistic solutions. However, I do believe they can be solved and that appropriate action by the Federal Government will be one requirement.

THE UNIVERSITY OF VERMONT

Mr. Chairman and members of the Governor's Commission on Medical Care: Thank you for allowing me to appear before you. I have prepared a written state-

ment covering my remarks which I propose to paraphrase. Since your time is limited and since there is scheduled testimony covering many aspects of health care, I plan to confine my remarks to the subject of physician manpower.

Physician manpower is a subject that is worthy of separate consideration because, first of all, physicians' compensation is a major part of the cost of health care, and, secondly, physicians by their decisions control most of the other costs of health care such as hospitalization, drugs, and many home health services. In my view, there are three major questions about physician manpower. These are (1) the numbers of physicians, (2) their geographic distribution, and (3) their distribution by specialty. I propose to examine each of these three questions separately both from a national perspective and a Vermont perspective.

The numbers of physicians required in this country is a subject of continuing and intensifying debate. At the present time key members of Congress are advocating increased numbers of physicians generated by increases in enrollment in American medical colleges. At the same time the administration has taken the posture that current enrollment levels will produce adequate numbers of physicians and that further expansion of medical schools is unwarranted. Bolstering their arguments is data suggesting that it may be possible to have too many physicians, and this leads to inefficiency in health care.

Vermont, as you know, is relatively well supplied with physicians even discounting the effect on physician population ratios imposed by the presence of a medical college in a relatively small state. However, there is unquestionably dissatisfaction with the availability of medical care in many parts of Vermont. In my opinion, this problem of availability, however, is related to the next two issues; namely, geographic distribution and distribution by specialty and not primarily to the number of physicians per se. In brief, I do believe that the United States will be educating adequate numbers of physicians and that the primary problems both for Vermont and the United States are those of geographic distribution and distribution by specialty.

National studies have only confirmed what everyone knows, namely, that physicians tend to congregate in certain areas, notably suburban areas and in medium-sized cities and towns, while there is a relative scarcity of physicians in rural areas and in inner cities. While Vermont, because of its attractive character and its excellent geographic distribution of regional hospitals, has bettter physician coverage than most states, there nevertheless are problems within our borders.

A variety of solutions to the geographic distribution problem have been proposed. I have already indicated that I do not believe that it will be solved by simply producing larger numbers of physicians, since without other inducements these physicians will still tend to congregate in certain communities. Senator Kennedy of Massachusetts has recently proposed a required two-year period of public service from every physician at the time of completion of education. Although this proposal, patterned apparently after the National Health Service Corps concept, might provide an interim partial solution to the distribution problem, I do not believe it is a definitive solution. Based on past experience with the National Health Service Corps, it would appear that physicians assigned to communities in need will not remain there beyond the period of their service unless additional inducement is developed. I do not think that a sound system of health care can be developed by a continually changing group of physicians.

The only permanent solution that I can foresee to the geographic distribution problem is to make areas currently underserved relatively more attractive to physicians. This can be done by increasing the attractiveness of these underserved areas or by decreasing the attractiveness of presently overserved areas. I strongly suspect that this will eventually be done by national legislation using economic incentives and disincentives. These may follow the Canadian model in which additional compensation is given for service in underserved areas. It may take the form employed by various European governments in which a prepayment capitation method evens out the distribution of physicians.

The third question is that of distribution by speciality. In my view, this is a serious problem both in Vermont and nationally. A number of studies have documented the problem nationally. Since World War II, there has been a steady decline in the number of family physicians and other physicians engaged in primary care with the concommitant increase in specialists. The general conclusion has been that we cannot develop a sound system of health care based on specialty physicians in primary care including general practice.

In Vermont we have seen the national trends reflected although we have been fortunate in maintaining a larger number of general practitioners than have most states. Nevertheless, I believe that the decline in numbers in general practitioners is a source of serious concern in Vermont. During the past year I have visited virtually every county medical society in the State, and in all areas I have been impressed by the numbers of new physicians. However, I have also been impressed that most of the new phsyicians are in specialty areas and that there have been very few new general practitioners. In community after community I have been told by the physicians that there is a need for more family doctors.

In my opinion, the genesis of this distribution by specialty problem is again economic, and, therefore, the solution will involve by necessity economic incentive and disincentives. At the present time it is easy for hospitals to create and pay for residencies in traditional specialties and difficult for them to do so in the area of family practice. Thus, many well-paid training programs in traditional specialties are available and few programs are available in family practice. Furthermore, during the past two decades and more, patterns of compensation have tended to favor those in specialty areas over those in primary care areas including general or family practice.

We have been very concerned with these issues at the University of Vermont and have been attempting to address some of these concerns in a variety of ways. First, we have strengthened the teaching of primary care within the existing disciplines of pediatrics and internal medicine. In addition, we have recently created a Department of Family Practice to emphasize the importance of this area for both medical student and residency training. We have created a residency training program in family practice and hope that we will be able to create a State-wide base for teaching family practice to both medical students and residents. We have been very much concerned with the problems of delivery of health care to underserved regions and have assisted in the development of the Villemaire Health Center in Milton to serve as a model facility for delivering care and training students and residents. In addition, we are committed to the development of the problem-oriented system of health care which we feel enables the physician to effectively delegate many activities to other health care professionals and effectively audit their outcome. We hope that this approach will have wide applicability to upgrading health care in many of the presently underserved areas of the State of Vermont. We expect to be pursuing all of these activities vigorously in the future.

However, I do not believe that the specialty distribution problem can be solved by University actions alone or indeed by action of state government. The kinds of economic changes required to deal with these problems can best be effected by shifts in Federal policy. In this regard legislation has been introduced in both houses of Congress calling for limitations on the numbers of residency programs in the different specialties coupled with increases in family practice training programs. I strongly suspect that legislation of this type will eventually be enacted and that this will be accompanied by changes in reimbursements of physicians so that family practice becomes more attractive and some specialty areas become relatively less attractive.

In summary, I have raised three questions about physician manpower: (1) the total number of physicians needed, (2) the distribution geographically of physicians, and (3) the distribution by specialty. In my opinion, the major problems are distribution geographically and distribution by specialty. Although these problems are not as severe in Vermont as they are elsewhere, they are nevertheless with us. Although we can in Vermont attempt to deal with these problems, their national scope will eventually lead to national solutions brought about by shifts in Federal policy.

Thank you for this opportunity to appear before you. If times permits, and, if you wish, I would be pleased to try to answer any questions.

STATEMENT OF DR. DAVID R. CONGDON, M.D., PRESIDENT, AMERICAN ACADEMY OF FAMILY PHYSICIANS, STATE OF VERMONT, THE CASTLETON MEDICAL CENTER, INC., CASTLETON, VT.

I have received your letter regarding the Vermont Rural Health Hearing scheduled for February, along with Senator Dick Clark of Iowa, who is Chairman of the Subcommittee of the Agricultural Committee which is holding these field hearings in Vermont on Rural Health Care Delivery.

I notice that you have mentioned that you will be looking at model systems which have been developed in Vermont to solve these problems—in an effort to determine whether or not they have any application in other areas of the Country. I also note that you are inviting to have written testimony submitted in advance of the February Hearings, with a January 15 deadline, which is nearly impossible at this late date. In addition, a simple written paper prepared by someone, such as myself, on this in advance, I don't think would be providing you with the information you are seeking as opposed to a person-to-person confrontation where questions and answers could be fielded on the pertinent subjects under discussion.

The information in areas that you have requested, as outlined in the System—Area; Number of patients served; Scope of care data; Cost effectiveness; Sources of current funding; Ability to attract and retain health providers; Effort to coordinate with other health providers; Quality control and additional information as you see fit—all of this information can be provided without being written down in advance.

I received a copy of a letter directed to Dr. John Scholan, President Elect of the American Academy of Family Practitioners for the State of Vermont, of which I am the President. He has forwarded this on to me, and I am, in turn, responding for him.

I do feel this is a very important area, which is evident by our interests and knowledge in Family Practice and what I personally have done as President of The Castleton Medical Center, Inc. (where we feel we have a pioneer project which cannot be seen in any other place, perhaps even in New England, in the way of comprehensive, diagnostic and therapeutic out-patient health care delivery.) In one system is found five physicians, two dentists, a podiatrist, an optometrist, a pharmacy, emergency rooms, complete laboratory and x-ray facilities, Well-Baby Clinic and a large Allergy Clinic, with the imminent addition of Mental Health Services and Social Counselling.

I would be most happy to meet with your Committee, when and if, you hold your Hearings here in Vermont, and if I can provide you with any further information, I would be glad to do so.

STATEMENT OF HENRY G. COE, EXECUTIVE DIRECTOR, VERMONT HOSPITAL ASSOCIATION, SHELBURNE, VT.

The Vermont Hospital Association appreciates this opportunity to present information about the health system in Vermont to the Rural Development Subcommittee of the Senate Agricultural Committee. We would first like to discuss efforts by Vermont hospitals through this Association to share resources, which allow our hospitals, many of which are small and relatively isolated, to provide similar services to their patients as are found in larger, more metropolitan areas. Our programs relate more to hospitals in their total mission than to the specific topic you requested, provision of primary care. However, programs of sharing and cooperation are good examples of administrative initiatives which improve the efficiency and quality of care provided in institutional settings.

1. TECHNICAL SERVICES PROGRAM

Fourteen Vermont hospitals belong to this shared clinical engineering program, which came about through cooperation between the Instrumentation and Model Facility at the University of Vermont, the Regional Medical Program, and the Vermont Hospital Association. With similar programs at the Universities of Maine and New Hampshire, the program in Vermont received a Kellogg grant to partially fund the program for three years. Beginning in November, 1976, it will be self-sufficient, supported by Vermont hospitals through a unique service-provided assessment system.

The goal of the Technical Services Program is to promote the safe use of electrical clinical equipment in hospitals. First, there is an inspection program which utilizes TSP staff and hospital maintenance personnel, thus creating in each member hospital a coordinated preventive maintenance program, with functional testing of clinical equipment on a regularly scheduled basis. TSP conducts educational programs for nursing and physician staff in hospitals, and brings engineering staff together for a seminar at least twice a year. When new equipment is to be purchased, hospitals call TSP for advice. New equipment is sent to TSP for inspection before it is installed in hospitals, which has resulted in a

decrease in defects in new hospital equipment. TSP repairs equipment either on site or at its own facility, and consults on special projects. TSP is an invaluable information source on code interpretation (federal, state, JCAH, NFPA, etc.) in their areas of expertise, and developed a voluntary OSHA inspection program for hosptials. When the State of Vermont stopped inspecting x-ray facilities because of budget limitations, TSP developed a program in cooperation with the Associates in Radiology at the University of Vermont. They also inspected air-handling systems in hospitals for possible problems, and actively pursued solutions to the anesthetic gas scavenging problem in operating rooms. One of their current interests to expand services is energy management. An energy audit and conservation program could help provide significant financial savings to hospitals.

The Technical Services Program has a total budget of about $100,000 a year, providing more services at lower cost than any similar program, as far as we know. While the program cannot measure its effectiveness in terms of dollars and cents, it has made Vermont hospitals able to comply with current and proposed regulations regarding electrical safety. As hospitals become more and more reliant on sophisticated electrical equipment, it is important that they also maintain it properly and that their staff understand the use of such equipment. The Technical Services Program has made it possible for smaller hospitals, especially, in Vermont to keep up with technological developments without adding full time staff within each institution. However, in a small area like Vermont, it is hard to maintain a staff with sufficient professional flexibility to provide these services, and therefore the program is being expanded to certain interested hospitals in the western part of New York state.

2. GROUP PURCHASING

After two years of voluntary effort with the Western Massachusetts Purchasing Group, the hospitals in Vermont and in the Hospital Council of Western Massachusetts joined together to hire a fulltime coordinator for group purchasing. The voluntary effort in FY 1974 resulted in a savings of $570,039.42, and the savings anticipated from a group purchasing effort with a full time coordinator are expected to be much greater. The projected savings on just the first five contracts negotiated by the group this year is 16%, or $14,690 for the two states. The cost of this program is about $40,000 a year to the group of hospitals, sixteen in Vermont and seventeen in Western Massachusetts. This cost will eventually be paid by rebates from the participating vendors. Sometimes in a small state greater volume is needed to make a program financially feasible, and in Vermont we have not been reluctant to look beyond our state borders for such assistance.

3. IN-HOSPITAL EDUCATION PROGRAMS

The Interact Television network provides physician education and other staff programs in three hospital locations in Vermont. This enables programs of high caliber, presented by the Medical Centers at the University of Vermont or at Dartmouth University, to be available to physicians and other staff members in smaller hospitals. Central Vermont and Rockingham have the receivers, but physicians attend from other nearby communities. Education is one reason often sited by physicians in rural areas for returning to metropolitan centers, and this system gives the practicing hospital medical staff member an opportunity to share ideas and concerns with university specialists. Unfortunately, grant support for the program is ending, and the system may not be able to be self-supporting.

The Vermont Hospital Association has promoted in-hospital training in management and cost containment for hospital administrations and nursing management. Two programs which were purchased jointly at a savings were Motivational Dynamics, a film-workbook presentation with George Labowitz, PhD., of Boston University, and "Hospital Cost Containment through Operations Management," an AHA workbook presentation providing easily understood concepts for managers to apply in their own departments.

We as staff of the Vermont Hospital Association also have a few thoughts about the hospital's role in primary care. The hospital serves as the major, and sometimes the only, community mechanism for recruitment of physicians, including specialists. Through data sources like the Cooperative Health Information Center of Vermont, hospital administrators can estimate need for services in specific towns. Once the doctors come, the hospital provides opportunities for

physician continuing education and exchange. In addition, many Vermont hospitals are establishing primary-care offices on or adjacent to their premises. Salaried physicians on the hospital staff are not as rare as they were only a few years ago. They provide emergency room coverage and some are providing specialist primary care, like obstetrician-gynecologist. Another encouraging development is the attempt by hospitals to establish satellite clinics in other communities, which provide the back-up of hospital physicians and services to areas previously remote from access to such facilities.

Traditionally, a hospital's primary mission has been to provide inpatient care. As changes in medical practice have occurred, however, hospitals have been providing more and more outpatient services. These range from laboratory tests through clinics to emergency medical care. The volume of outpatient visits in Vermont has increased 68%, from 205,991 in 1968 to 643,399 in 1974.

We anticipate the hearings in February, and would be willing to arrange to have testimony given on any of the programs we mentioned. Many of the hospitals will be responding directly to your request for information. We are pleased by your initiative in having these hearings and in setting such a positive tone. We look forward to seeing you next month in Washington.

STATEMENT OF THE VERMONT EPILEPSY ASSOCIATION, RUTLAND, VT.

BACKGROUND

The Vermont Epilepsy Assn. was incorporated in 1971, by a group of Vermont citizens who recognized there is strength in unity and that a statewide organization would help solve the problems which individuals could not. This organization has purchased equipment for the Gas Liquid Chromatography Laboratory (GLC) in the neurology dept. of the DeGoesbriand Unit of the Medical Center Hospital of Vermont. It was accomplished with the support of the Developmental Disabilities Council, the Vermont Federation of Women's Clubs and contributions from many friends of this Chapter.

THE EPILEPSY PROBLEM IN VERMONT

Approximately two per cent of our population are afflicted with this disorder. Funding helps us conduct workshops for teachers, employers, public and private agencies and organizations, professionals and others who need to know more about the social community problems and the medical management of the person with epilepsy. We need to meet the people with epilepsy and help them form their own constituency.

TREATMENT

Persons who experience seizures should be under the care of their personal physician; early diagnosis and continued treatment are necessary for good control. Treatment may include administering tests such as the electroencaphalogram (EEG), which painlessly measures and records electrical discharge patterns of the brain. Tests may also be conducted to determine accurately the levels of anticonvulsant medication in a patient's blood serum. (GLC).

OUR PURPOSE

Becoming a comprehensive service agency. We will strive to:

1. Promote and support research into the causes and treatment of epilepsy.
2. Make known the available treatments.
3. Improve educational and vocational opportunities for the person with epilepsy.
4. Educate and provide information to the public with a view toward changing attitudinal barriers for the person with epilepsy.
5. Cooperate and work with any health, welfare, educational or other organizations or groups having similar purposes.
6. Provide the necessary financial support to maintain and improve our programs and services. Specifically, an information and referral service is being constantly updated to provide precise information to people with epilepsy concerning other public and private health service organizations that benefit them.

In the area of education and information, the Epilepsy School Alert program is now being established with the support of the Vermont Division of Special

Education. Through this basic education program the citizens of tomorrow can help reduce the social stigma of epilepsy today.

FUTURE NEEDS

We exist for people and therefore must be people-oriented, responding to the ever-changing needs of Vermont citizens with epilepsy, their families and friends.

Volunteers are always needed to help us conduct the programs and distribute the materials and information to the individual communities throughout the State. The primary goal is to provide optimum services within existing resources. Clearer identification of the needs of this group statewide is required so that a program in depth can be designed.

FUNDRAISING

As our needs increase for services and programs, so must our ability to pay for them. As programming needs are met in individual communities, local organizations will conduct events to support our programs and to give us a strong base for operations. The most complete instrumentation of our programs depends upon the availability and generosity of volunteers and the general public. Education and minimum cost are two of the overriding factors in fundraising activities.

Bequests become a living memorial.

Your Help Is Needed

What can YOU do?

1. Volunteer your time and services, assist in educational program development and distribution; help in fundraising events.
2. Join the Epilepsy Foundation of America through the Vermont Chapter in assisting those four million American citizens who have epilepsy, of which our 8,600 Vermonters are a part. Help to educate the public to the social implications of this disorder. We must find new ways and resources to alleviate the burden borne by people with epilepsy, their families and friends—learn that epilepsy can strike anyone at any time.

Information About Epilepsy

Epilepsy is a disorder of the central nervous system marked by sudden and periodic lapses of consciousness (seizures) and unusual discharges within the brain. A seizure may last a few seconds or for several minutes depending upon the type of epilepsy involved.

Seizures are usually classified as (1) petit mal, (2) grand mal, and (3) psychomotor or temporal lobe. Petit mal most common in children, lasts from 5 to 20 seconds, and occur many times an hour. The child will stare, and may twitch eyelids and momentarily lose consciousness.

Grand mal seizures last possibly a minute or more and can occur one or more times daily, weekly, monthly or less often. The patient loses consciousness and usually falls to the floor with convulsive movements of the body. Afterward he may be confused or drowsy. Psychomotor seizures last from one to five minutes and may occur weekly, monthly or yearly. The activity in psychomotor seizures varies with the patient, but often involves aimless repetitive patterns of behavior which the patient cannot later recall. Most seizures are not painful to the patient and do not require medical assistance. A seizure cannot be stopped once it has started; no effort should be made to stop one, but the area around the patient should be cleared so that he will not injure himself. Seizures can be caused by brain damage before, during or after birth; head wounds; poor nutrition; high fevers; some poisons; infectious diseases or brain tumors. Often the cause of epilepsy is unknown. The disorder is never contagious.

About 80 per cent of epilepsy patients can be completely self-sufficient if given an opportunity. With proper anticonvulsant medication under a physician's supervision, these patients can enjoy normal activities and function independently in society.

FIRST AID DURING A SEIZURE

1. Keep calm. 2. Clear the area around the person. 3. Don't use restraints. 4. Don't force anything between the teeth. 5. Unless the seizure lasts more than 10 minutes don't call the doctor. 6. Let the person rest after his seizure. 7. Be reassuring, gentle, understanding.

Vermont Epilepsy Association Budget for 1976

1. Salaries:	
Executive Director[1]	$8,996.00
Secretary	6,240.00
2. Benefits:[1]	
CETA	1,004.00
ETA	640.00
Social sec	526.26
Social sec	365.00
3. Rent	1,620.00
4. Postage	1,500.00
5. Telephone	750.00
6. Travel	250.00
7. Client expenses	1,000.00
8. Supplies	1,000.00
9. Equipment	1,500.00
10. Revenue Sharing National	3,800.00
11. Miscellaneous and utilities	500.00
Total	29,691.30

Income

A. Fixed:	
1. Salaries:	*Contracts*
CETA	8,996.00
EEA	6,240.00
2. Benefits:	
CETA	1,004.00
EEA	640.00
Total fixed income	16,880.00
B. To raise:	
1. Membership dues	1,611.30
2. Epilepsy month (November)	8,000.00
3. Special Projects	3,100.00
4. Miscellaneous bequeath and memorials	100.00
Total money to be raised	12,811.30
Total gross income	[2] 29,691.30

[1] Salaries and benefits paid through CETA/OMS.
[2] Reduction of expenses aided by gifts from in-services, or materials from high schools, businessmen, Vermont Medical Society, Vermont Achievement Center.

VERMONT EPILEPSY ASSOCIATION, INC.

Report of January 15, 1976

Epilepsy school workshops (registered) August 27, 28, and 29, 1975	117
In-Service workshops (attending) January 14, 1976	70
Gas-Chromatography laboratory information to physicians (mailings)	3,000
To Vermont Medical Society (mailings)	800
To hospitals, schools, nurses, clients, colleges, and special education departments (mailings)	4,459
To Department of Health (mailings)	210
To early and periodic screening (mailings)	168
Exhibits	3

Vermont Council on the Aging.
Vermont Federation of Women's Clubs.
Lion's Club Home Show.

Client referrals (clients)	49
Volunteers	15
Number of hours served—800.	
Survey (Prescription pricing, drugstore, Rutland & Burlington are completed; other towns ongoing)	2
Educational films loaned out (showings)	8
Audio-Cassettes loaned out (times)	2
Gas liquid chromatography report of June 30 (client evaluations)	950
InterAgency relationships (agencies)	8
(Mental Health, Public and Visiting Nurses Association, Volcational Rehabilitation, Social Services, Welfare Department, Employment Security offices, Governor's Commission of the Handicapped, Coalition for the Handicapped (newly Formed).	

Physicians are supplied materials thru Vermont Epilepsy Association—Gas liquid chromatography laboratory summary of clinical services (January 1, 1975—June 30, 1975)

Total number of samples	950
Total number of patients served	686
Total number of repeats	264
Total number of males	485
Total number of females	465
Ages (3 months to 83).	
Counties from which patients came:	
Addison	73
Bennington	4
Caledonia	24
Chittenden	395
Essex	4
Franklin	63
Grand Isle	6
Lamoille	24
Orange	15
Orleans	31
Rutland	69
Washington	97
Windham	1
Windsor	2
Unknown	51
Out of State patients:	
Connecticut	1
Maine	1
Massachusetts	2
New Hampshire	6
New Jersey	4
New York	77
Total	950
Referral sources:	
Chittenden County physicians	71
Caledonia County physcians	1

NOTE: These figures show the physicians who referred directly to GLC. It should be noted that the patients were referred to physicians in Chittenden County for treatment of their seizures by physicians from their own counties.

Institutions, Clinics, etc. that have sent samples directly are: Brandon Training School and Rutland Hospital (Rutland County); Gifford Memorial Hospital (Orange County); Vt. State Hospital (Washington County); Porter Hospital (Addison County); Burlington Convalescence Center, Fanny Allen Hospital, Emergency Room—Medical Center, Neurology Ambulatory Care (Chittenden County); Laconia State Hospital and State School (N.H.).

VERMONT EPILEPSY ASSOCIATION

THREE YEAR PLAN

Year one:

Priority 1. Build a constituency by reaching the persons with epilepsy and their families, a. parents group.
2. Membership extension: a. Community "Key" contacts.
3. Organization expansion:
   a. Public relations-publicity with ongoing program efforts.
   b. Identification of problem areas and unmet needs.
4. Public education and information:
   a. Workshops for teachers, professionals, paraprofessionals, employers (ongoing).
   b. Chapter services pamphlet.
5. Funding (ongoing).
6. Volunteers (ongoing) identify with 1., a.; 2., a.
7. Legislation (ongoing):
   a. Insurance.
   b. Legal and civil rights.
   c. Employment opportunities.

Year two:

Priority 1. Organizational contacts and referral sources (ongoing).
2. Advocacy (ongoing).
3. Counseling:
   a. Field representative.
   b. Educational/vocational counselor.
4. Volunteerism (ongoing).

Year three:

Priority 1. Legal services (ongoing).
2. Identification of existing resources (ongoing).
3. Funding (ongoing):
   a. Commerce and industry.
   b. Grants.
4. Toll free line for VEA.
5. Mobile seizure unit (long-range planning).

Ongoing (continuous to all priority levels). Is applicable to all priorities.

Committee: Peter Zuk, Chairman; Prof. John Mabry; Helen Ginsburg; Barbara Borst; Phyllis Harrington.

STATEMENT OF DR. ROBERT B. AIKEN, M.D., VERMONT PROFESSIONAL STANDARDS REVIEW ORGANIZATION, INC., SHELBURNE, VT.

Let us first examine what the consumer is primarily concerned with. I believe the top priority with consumers is to be able to get some kind of primary care on a 24 hour a day, seven days a week basis, when they feel they need it. Better than 85% of consumers are *not* dissatisfied with the quality of care once they get into the system.

Next on the list from the consumer's standpoint is the high cost of care.

Besides these major concerns, there are other bothersome factors such as transportation, long waits in offices, clinics and emergency room, lack of understanding as to what the doctor has told them in regard to treatment and diagnosis, and poor knowledge as to the availability and proper use of resources.

From the provider's standpoint, the chief complaints about consumers seem to be that they have been led to expect better results than are possible to deliver in many conditions. Coupled with this is the failure of many consumers to take much responsibility for their own health before, during, or after an illness.

The above may be oversimplifying what appears to be a complex situation, but if we could correct just the major dissatisfactions, we would have gone a long way toward solutions on a quantitative basis at least. One of the difficulties, I believe, has been the attempt to seek total solution to all problems be they large or small all at once, which, of course, reduces one to a state of discouraged confusion at the "complexity" of it all.

With the above points in mind, I would like to make the following comments and recommendations. I give the reader credit for the ability to match the problems with the recommendations.

GROUP FAMILY PRACTICE UNITS

Some 25 years ago, I recommended that group practice facilities be constructed by the state, distributed in such a manner that everyone would have access to one of them. These would have been staffed by private physicians and professionals and the costs of construction amortized over a 20 year period by the physicians and/or the community operating the facility. The plan was never implemented, unfortunately.

Recently, several physician groups have started facilities of this type, some in rural areas. But, while there may have been planning as far as an individual facility is concerned, there has been no attempt to influence the distribution or development of such facilities to cover the entire population on an equitable basis.

I would recommend that some organization either governmental, private or a combination be given the responsibility of promoting these family practice group units throughout the state. If areas appeared where the private construction and/or operation of such units was not feasible, then government subsidy should be seriously considered. A modus operandi for such a system, I am sure, could be worked out. There should also be a small review board composed of people with specialized knowledge of medical practice, economics, population characteristics, etc. which would pass on whether a proposed facility and staff would meet the needs and whether the project was viable. I am purposely making this sketchy, but I would be glad to discuss details if anyone is interested in the basic concept. Incidentally, the pattern I have outlined would be readily convertible into a statewide H.M.O. if that seemed to be the direction we should be going.

NURSE PRACTITIONERS

There is no need to review all the well known material *and* experiences on the use of nurse practitioners and their ability to improve the accessibility of primary care, effectiveness of the physician and the cooperation of the patient. I would recommend that a government subsidized training program for nurse practitioners be instituted and that these practitioners be assigned to physicians free of charge the first year, and 50% the second year with the intent that the physician would pick it up from there. This would be an incentive program in other words. The above mentioned group practice units would be ideal for the use of the nurse practitioner.

HEALTH EDUCATION

There should be a comprehensive K through 12 health education program which has specific objectives in mind so that the student will acquire knowledge of how his mind and body functions normally, how to maintain that normality, and how to assess the need for professional help when an abnormal condition is recognized. There should also be a post-graduate or adult component to this program to keep the population abreast of new developments and the proper use of resources. I cannot emphasize enough the need for the public to have the basic knowledge such an educational program would bring if we are ever going to manage an efficient, effective, and economical health delivery system.

I have intentionally limited my recommendations to what I think are basic and attainable. If they were implemented, I believe we would have laid the ground work for more detailed solutions to many other problems in the rural health delivery area. I have not gone into any detail pending interest in the ideas herein expressed.

STATEMENT OF JOYCE O. STICKNEY, DIRECTOR, PUBLIC HEALTH NURSING, VERMONT STATE DEPARTMENT OF HEALTH, BURLINGTON, VT.

Thank you for the opportunity to submit testimony regarding rural health care in Vermont.

I am a native Vermonter and have lived and worked in Vermont all my life, except for the years I spent out of state at school, therefore am vitally interested in continuing those services for Vermont's citizens which are working and modifying, adding to or expanding on what we already have rather than developing something entirely new and separate.

I have included a summary of the primary health care delivery system in which I am presently involved and a summary of how I would like to try modifying our present services. I trust this information will be useful to you.

OUTLINE OF PRIMARY HEALTH SERVICES[1] PRESENTLY CARRIED OUT BY VERMONT STATE DEPARTMENT OF HEALTH, PUBLIC HEALTH NURSING

Well child conferences: (1) (3) Outline of system including scope of care:

Service provided in conference	*Personnel in conference providing service*
Physical screening	Medical doctor or pediatric nurse practitioner.
Immunizations	Public health nurse or professional volunteer.[2]
Height and weight	Volunteer.[2]
Urinalysis	Public health nurse or volunteer.[2]
Hemoglobin or hematocrit	Public health nurse or professional volunteer.[2]
Vision screening	Volunteer.[2]
Hearing screening	Volunteer.[2]
Developmental assessment: physical, emotional, and social.	Public health nurse or professional volunteer.[2]
Dental screening	State dental hygienist.
Parent guidance: Child growth and development, parenting, assistance with obtaining needed referral services.	Public health nurse.

[1] Public health nursing carries out a number of services not categorized as primary health care services and, therefore, not detailed here.
[2] The public health nurse is responsible for teaching all volunteers screening procedures and how to record results.

NOTES

Well Child Conferences are held periodically, usually once to twice a month, throughout the State of Vermont. All children from birth to school entrance are eligible without charge. The public health nurse organizes, coordinates, implements and follows up each conference. Much of this she accomplishes through locating teaching and working with local community volunteers.

The nurse is responsible for assisting parents in obtaining any indicated follow-up diagnosis or treatment which the nurse cannot herself provide.

The one area of primary health care not available for children in the well child conference, is the care of uncomplicated, mild illnesses. Nor does the Department offer a similar service for adults. That is why I have included a short summary of what I would like to see as an expansion of these services to include all age groups and care of common mild illnesses.

(2) Area and number of individuals served:

Conferences are held throughout the State of Vermont organized by nurses from 12 district offices located in Barre, Bennington, Bradford, Brattleboro, Burlington, Chester, Middlebury, Newport, Randolph, Rutland, St. Albans and St. Johnsbury.

During fiscal year 1975 the 34 state public health nurses held 475 well child conferences with an attendance of 7,586.

(4) Cost: Latest time cost study indicates it costs the Department $27.47 per child served in well child conference.

(5) Source of current funding:

(*a*) State funds.
(*b*) Maternal and child health Federal funds, A and B.
(*c*) Medicaid—EPSDT.

(6) Ability to attract and retain health providers: Chief problem is low salary level when compared to private enterprise or other areas of the nation.

(7) Effort to coordinate with other health providers: The Department has written coordinating agreements with local home care agencies. Has combined functions with one home care agency. Has developed one combination public/private agency.

(8) Quality control:

(*a*) Public Health Service requirements.
(*b*) Nursing audits clinical records for appropriateness and quality of service provided.

(9) Additional: There is not nearly enough funding to begin to address the needs in this area. The Department needs double the number of public health nurses it presently employs. Quality preventive health services save many times the cost to the public that they cost to deliver.

PROPOSED EXPANSION/MODIFICATION OF PRESENT PUBLIC HEALTH NURSING SERVICES TO PROVIDE TOTAL PRIMARY HEALTH CARE

At least one physician at the University of Vermont feels the University should take a more supportive role of the local primary physician. He feels the University could offer periodic on campus up-dating for the local physician and provide a physician to carry on the local practice during the updating period. This to be carired out on a demonstration basis with grant funding to determine if it would attract physicians to local practice.

The Vermont State Department of Health could co-locate with the primary physician at the local level and add family nurse practitioners and nurse midwives to the Department's public health nursing staff. The Department personnel would offer to all age groups the type of service it now offers to children up to school age. In addition, it would offer through the nurse midwife prenatal services to pregnant women.

The care of common illnesses would be carried out by the local physician. There would be an arrangement through which the physician would treat illnesses without charge for a predetermined income level in return for the Department's personnel providing the preventive health services for his private patients.

This would amalgamate private and public health services and remove the necessity for national health insurance to fund primary health services, leaving such insurance for acute and catastrophic situations which require treatment at the Medical Center.

STATEMENT OF C. W. CONDON, EAST MONTPELIER, VT.

In answer to the newsletter regarding Health Care, and the Vermont Rural Health hearing, scheduled for February, I would like to say that I believe I am in a position to know something about this matter.

I am an employee of the Area on Aging in Vermont, and as such have had almost constant contact with the aging of the state for nearly four years.

About two years ago the plan was formulated to establish a Health Care Center in Plainfield, where we could take advantage of the facilities offered by Goddard College.

It has been coordinated, and is producing very satisfactory service to a great number of people from six surrounding towns. As the East Montpelier representative of the Health Center, and also as an employee of the Area Agency on Aging, I can see many points which could be expanded if we had sufficient capital.

Senator, I should like to strongly emphasize our need for more funds if we are to in any way enlarge our service to the public.

We greatly appreciate your interest in our local health problems, and rely on you to help us obtain the necessary money for our venture.

STATEMENT OF DR. JOHN D. MATTHEW, M.D., MEDICAL DIRECTOR, AND JOHN J. CLERKIN, DIRECTOR, MARTHA MICHELSON HEALTH CENTER, NORTHEAST WASHINGTON COUNTY COMMUNITY HEALTH, INC., PLAINFIELD, VT.

We appreciate the opportunity to present testimony to the Rural Development Sub-Committee at the hearings in February.

This organization is involved in an innovative venture in rural health care delivery. Though we are only beginning to implement our plans, these have evolved from a careful planning process and promise significant impact upon the numerous problems involved in rural care. We would be quite pleased to speak to the committee or be of help in any other appropriate way.

Our organization is a cooperative endeavor which brings together the resources of six rural towns and a small rural college. Our Board is made up of representatives from these towns, elected at annual town meetings. This marriage of mutual interests has pulled together a local organization of sufficient talent, representing a population of sufficient size to support a rural practice unlike that of the traditional and disappearing solo private practitioner. We believe our community organizational scheme can be replicated in many other

areas, as can the use of the resources of a small rural business to aid the local area in meeting common needs.

We employ centralized non-physician management, extensive use of physician's assistants, great emphasis on patient education, and on-site provision of laboratory and dispensary services in our design for care delivery. Our plans to make the practice attractive to the very best physicians and an appraisal of the difficulties of attracting physicians to rural practice are included in the enclosed excerpt from a grant application we prepared last spring.

We are not yet in a position to present data heralding success of our various plans, but can speak with authority to the success of the model thus far, the problems inherent in the rural care situation, the provisions that must be made to attract and hold physicians in such areas, and the support which should be provided by government to promote the efforts necessary to the solution of rural medical care problems.

We look forward to further work with your committee.

IV. MEDICAL: PROGRESS REPORT AND NEEDS ASSESSMENT

It is well known that there is a pressing shortage of physicians in primary care roles, particularly in rural areas [1 10] and that care increasingly is delivered in urban settings by a variety of specialists, which inflates costs and leaves the patient without a secure or convenient primary patient/physician relationship. Patient management is frequently fragmented, costly, impersonal, inaccessible and rushed. Rural patients under-utilize physicians for multiple reasons, receiving crisis oriented care while suffering the discontinuities and lack of directed management of chronic diseases inherent in such patterns of contact with medical care.[1] Rural emergency rooms have become substitutes for primary care physicians.[4–9] These services, more costly and less effective in delivering proper continuing care, are often overloaded with inappropriate users.[9]

In economic terms the primary care physician tremendously influences specialized services, laboratory tests, pharmaceuticals and subsequent hospitalization.[4] His responsibilities should include prevention of certain diseases, various public health measures, and attending to important parameters of patient education which in turn influence adherence to management protocols and sensible utilization of M.D. services. Yet those physicians who do locate in rural areas are often untrained in, usually unsupported in, and frequently unavailable for the provisions of these important (though often non-revenue-producing) functions. There is a need in virtually all rural primary care settings to better utilize the physician as public health officer, preventive care provider, and educator. Similarly, he requires support systems providing instruction, guidance, and audit in directing the use of those health care dollars of the patients he serves. Innovative departure from traditional patterns may augment these functions significantly.[7–2]

Problems involved in attracting physicians to rural areas are manifold. These related to professional isolation, overwork, lack of continuing education, and inadequate support systems. Rural practices often make poor use of physician time, requiring the M.D. to perform many management tasks and many routine patient care tasks, in units which suffer the increased costs and the limitations which are inherent in a small scale operation.[1] Furthermore, the systems which develop in rural areas tend to be highly physician-dependent and, in distressing similarity to the larger, impersonal urban care settings, involve little or no consumer control or influence. The small scale practices which do develop are frequently limited in scope and do not provide timely and appropriate access to specialized care when it is needed. Patients minor problems predominate in number, overwhelming the physician, while the expert consultation he requires for his serious, if unusual, problems is not at hand. Audit of such practices is usually nonexistent. Clerical support systems are inexpertly designed. Young physicians increasingly eschew solo private practice and are drawn to cities. The situation in rural areas is becoming steadily worse in all regards.

It is clear that acceptable and appropriate alternatives must be made available to young physicians to encourage them to seek a career in primary care.[2] It is equally clear that the structure of such practices must be altered, not only to

---

[1] "An Outreach Program for a Rural Medical School," Johnson and Haughton, *Journal of Medical Education*, Volume 50, 1975.

[2] "A Residency Program in Primary Medical Care: The Physician as Provider-Manager," Taylor and Johnson, *Journal of Medical Education*, Volume 48, July 1973.

aid in attracting and retaining M.D.'s but also to optimize the benefits to the populace served by those physicians.

The Council has sought to remedy, in our area and as a model for other areas, the deficiencies outlined above. Our medical service has made a strong start in its initial months of operation. The experience of these months has allowed us to test certain concepts and recognize certain needs. We now seek to improve upon our beginnings, building a model service providing top quality patient oriented primary care.

At this point we identify several aspects of the actual medical practice arrangements and teaching program which we wish to develop. These are:

A. Physician Assistant Training.

B. Establishment of Clinic as a Teaching Community.

C. Improving Practice (These include: 1. Records/Audit, 2. Specialty Consultants in Continuing Education, 3. Pilot Evening Clinic and, 4. Home Health Nurse Practitioner).

A. PHYSICIAN ASSISTANT TRAINING

The clinic's medical director has undertaken an in-house Physicians Assistant training program as allowed in Vermont law. The program is considered excellent by the Health Commissioner and its participants have been admitted to the P.A. certification exam of the National Board of Medical Examiners. This program has attracted wide attention from other health centers, i.e. Gorham, New Hampshire (NHSC Clinic), Green Mountain Health Center, Princeton University Student Health Service and Vermont Women's Health Center. The P.A. trainees have been well accepted by our patients and contribute to increased physician productivity, better patient education, more personal attention and increased consumer access to medical services, as might be expected from the experience of other Physicians Assistant programs.[3] [4] All groups of patients appear to have perceived the P.A.'s as technically competent, courteous, and confident. It has previously been demonstrated that older patients and persons in low medical access groups rate P.A. impact higher and express greater confidence in P.A.'s. While these two important portions of our population do indeed appear to accept P.A.'s well, other user groups are equally pleased with the service rendered by the team approach we have initiated. Largely because of this approach to practice, the practice has been attractive to medical students (University of Connecticut, Harvard, Stoney Brook–SUNY) and residents (Dartmouth, McGill) who have come to observe and work in the practice for intervals of up to 3 months (See physician recruitment, below).

We wish to continue and strengthen this training program, and explore ties to an area teaching hospital for the program. Medex New England having taken in its last training class, there are at present no alternatives to the expensive programs such as that at Yale. We believe our in-service training program produces a quality graduate and might be replicated throughout Vermont from our example. We seek funds to cover a portion of one M.D.'s salary and travel expenses to allow him to improve, and more critically evaluate the P.A. Training program and to invite the area's Home Health Nurses and Public Health Nurses to the Health Center for regular up-date sessions.

B. ESTABLISHMENT OF CLINIC AS A TEACHING COMMUNITY

As noted in the above, physician recruitment and retention in rural areas requires alternatives to the traditional solo practice pattern. Our area is having difficulty, despite increasing needs, in recruiting young physicians to practice.[5] Statewide the number of primary care ("Family Practitioners") is declining steadily.[6] Many graduates of area medical schools elect to practice outside of the state.[6] It is recognized that physicians are more likely to practice in the geographic area where they have completed their residency training.[2] [7] Thus physician recruit-

[3] "Patient's Acceptancy of Physicians Assistance," Nelson, Jacobs, and Johnson, *JAMA*, Apr. 1, 1974, Volume 228, No. 1.

[4] "Acceptance of Para-Medical Professionals" (Editorial) *Annals of Internal Medicine*, Volume 77, No. 3, September 1972.

[5] *A Plan for the Development for the Central Vermont Hospital*, Chi Systems, Inc. Project No. M04–A.01, December 1973.

[6] *Consumer Affairs Bulletin No. 1*, Comprehensive Health Planning, State of Vermont.

[7] After three years of a health project in the mountains of Eastern Tennessee, which involved resident physicians and medical students, the Communities included in the project (which had been *without* physicians) attracted 14 Vanderbilt medical graduates. (6)

ment to the area will be greatly aided if it can be arranged for residents from an area medical school to regularly receive a portion of their clinical training on location in the clinic. Furthermore, alliance of the clinic's medical service with a medical school will aid greatly in addressing many of the deficiencies which repel young physicians from rural practice and in augmenting the benefit of those which are recruited. We wish to explore and establish ties to an area medical school, becoming a "teaching community" for primary care instruction. Such an arrangement will be advantageous to the patients, the physician, and the program of the Health Council, by affording licensing resources, consultation, professional exchange, and aid in program design and clinic management.

We seek funds to cover a portion of one M.D.'s salary and travel expenses to aid in establishing a continuing alliance of this Health Council clinic as a teaching community clinic with attendant advantages to its physicians and their patients.

C. IMPROVING PRACTICE

The best practice of medicine—preventive, detective, ameliorative, and supportive—consists of a great deal more than merely the regular day-to-day business of seeing patients in the clinic. A great number of additional considerations bear upon the quality of service actually provided. These involve in-house and out-of-house tools, resources and procedures which require initial development, but which then often require no long term support.

1. Records/Audit

We wish to develop patient record keeping, information retrieval, record audit and quality of care review systems. It has been firmly demonstrated that quality of care directly relates to and is reflected by medical record keeping systems.[8] Further, care can best be assessed, for the purpose of the practice and of this pilot clinic, if the practice is indexed for record retrieval (for example by age and sex) and for audit (for example by diseases).

2. Specialty Consultants in Continuing Education

We wish to develop a reference library, a pool of specialist-consultants, and a network of specialists of the highest calibre for referral and instruction, ensuring continuing professional back up, up dating, and record exchange in the pursuit of quality patient care. We also wish to free our physicians for occasional mini courses and training sessions to enable them to expand their skills and learn the new techniques required in the practice as it develops.

3. Pilot Evening Clinic

We wish to undertake an evening clinic as an innovation which we believe will better serve certain groups of patients, take advantage of existing clinic facilities now follow after regular hours, enhance service and on call availability, and help remedy the chronic problems of misuse of the Central Vermont Hospital Emergency room. We seek to inaugurate the night clinic in September, 1976, when day clinic capacity will have become fully utilized, given the present rate of accretion of patients by the Clinic.

4. Home Health Nurse Practitioner

Finally, we wish to incorporate the services of a Nurse Practitioner (presently training) as a home health nurse for the area into our clinic staff. In cooperation with the Home Health Agency for the area, we wish to fully integrate the Home Health representatives in the area into our paraprofessional staff, allowing close continuing education for the nurses as well as allowing the Home Health patients to have contact with the clinic with the Home Health nurse in attendance. We feel this innovation will significantly improve the care of such individuals, ensure enthusiastic physician support of the practitioner, and hopefully reduce the number of office visits required by such home bound patients.

We consider that one-half of a physicians total time might be well spent for one year in continuing and improving the P.A. training program, establishing the clinic as a teaching community, establishing a specialty referral and consultation pool, developing the medical record and audit systems mentioned, and working with the Home Health Nurse Practitioner. We request funding to support the training year for the Nurse Practitioner and one-half salary for a physician to undertake the evening clinic.

[8] *The Problem Oriented Medical Record System,* Laurence Weed.

STATEMENT OF JOAN BLANKINSHIP, NURSE DIRECTOR, CALEDONIA HOME HEALTH CARE AGENCY, INC., ST. JOHNSBURY, VT.

In response to your request for testimony regarding the provision of primary health care, I would like to respond by describing the following:

1. The Children and Youth Project of the St. Johnsbury area, a program of the Caledonia Home Health Care Agency, Inc.
2. To briefly describe arrangements with local primary care physicians which utilize nurses with expanded skills who can participate in providing primary health care services.
3. To discuss the role of a broad based community health provider in the provision of comprehensive health services in that community.

You will find an appendix at the end of this letter which contains some additional information which may be helpful. Exhibit A is a brief description of the Calendonia Home Health Care Agency which appears in the annual town reports within our service area.

I. THE ST. JOHNSBURY AREA CHILDREN AND YOUTH PROGRAM

A. Background

Since 1969, while providing health services to OEO funded Day Care Centers, the Caledonia Home Health Care Agency staff became aware of health problems common to this population. That is (1) health care was episodic, fragmented and usually crises oriented rather than preventive; (2) a high percentage of children with problems came from medically indigent, socially disorganized families.

Because of this, in the spring of 1972 the CHHCA realized funds from the Northern New England Regional Medical Program (NNE/RMP) to establish comprehensive, ambulatory pediatric services for medically indigent preschool children and their siblings through pediatrician preceptorship of a pediatric nurse practitioner (PNP) who would coordinate the services of a health care team. The project was based at 95 Main Street, St. Johnsbury and became known as the St. Johnsbury Child Health Center. By May of 1974, 378 children were enrolled from 160 families with 55% of the families having incomes between $3,500 and $5,000.

In May of 1974 the Child Health Center became a Children and Youth Project (C&Y) funded by HEW and subcontracted to CHHCA through the State Health Department. Dr. Roberta Coffin, Director of Child Health Services, State Health Department, is responsible for the Children & Youth Project within Vermont.

B. Outline of system

Exhibit B in the appendix contains the sub-objectives of Vermont Children and Youth Program.

The C. & Y. Project provides a full spectrum of comprehensive pediatric services through a team approach utilizing pediatric nurse practitioners who expand physician and nursing services, a part time Medical Director and other para medical personnel. Care is comprehensive, continuous, personalized and well co-ordinated with federal, state and local child service programs in health education and welfare.

C. Area and number of patients served

The St. Johnsbury area Children and Youth Project serves children 0–15 years of age in all of Caledonia County except Hardwick plus the towns of East Haven and Concord in Essex County, totaling 18 towns in all and approximately 450 square miles. Currently 550 children are enrolled from 207 families. Our target for population for F.Y. '76 is 800 children.

D. Scope of care

The primary objective of the St. Johnsbury Area Children and Youth Project is to promote the health of children and youth particularly in areas with concentrations of low income families. These services encompass the full spectrum of care, including preventive health services, case-finding, diagnosis, treatment, correction of defects and after-care. The project's focus is on health promotion, and therefore, utilizes a multi disciplinary approach to meet the medical, physical, dental, social and emotional needs of the low income child population served.

E. Data on cost effectiveness

It is recognized that in order to meet the high level of need of the population served care will be more costly than to the general population. Specific cost data will be gathered this spring when the statistical reporting system produces the data needed.

F. Sources of current funding

Primarily Title V funds of the Social Security Amendments as subcontracted through the State Health Department. A comprehensive education and training act (CETA) slot for one employee is currently being utilized. Third party payment for services rendered by the P.N.P's and/or Medical Director is garnered from Medicaid. Blue Shield reimbursement is now enabled and the possibility of payment from other insurers is being explored. This earned income is expected to reimburse only approximately 10% of our actual cost. Reimbursement for some services is enabled by the agency because it is a home health services provider, specifically for the Medicaid population for public health nursing services and the homemaker, home health aide service.

G. ABILITY TO ATTRACT AND RETAIN HEALTH PROVIDERS

To date we have been able to find and retain needed providers with the exception of a master's prepared social worker. However, we are now interviewing some appropriately prepared candidates and hope we will fill the position soon.

H. EFFORT TO COORDINATE WITH OTHER HEALTH PROVIDERS

One of the unique and most positive elements in this project is that we have been able through contracts and agreements to co-ordinate and interrelate this project with other providers within the community. For example:

1. With other services provided by C.H.H.C.A.—Preschool health services for Head Start, The Parent Child Center, St. Johnsbury School District Early Education Project, Day Care, Pre-natal Education classes, Nursing Mothers Club, Family Planning Services.
2. With other community health providers.

(*a*) N.V.R.H. Hospital—agreement for provision of services to C. & Y. clients. Agreement for Agency Nurse Co-ordination to function in hospital for case finding and referral. Agreement for answering service for 24 hour on-call through hospital switch board.

(*b*) Northeast Kingdom Mental Health Services—contract for assignment of clinical phychologist to C. & Y. team who coordinates all clinic services with Northeast Kingdom Mental Health.

(*c*) Private physicians—contract with eight area physicians (including 1 pediatrician) to back up P.N.P.'s when Medical Director is not available. Contract of P.N.P.'s part time to physician private practice. Co-ordination agreement with other area pediatricians to back up P.N.P.'s in area well child conference.

(*e*) State Health Department including Division of Public Health Nursing—this coordination agreement is currently under review as we are working toward combining our services—Maternal and Child Health coordination now in place including provision of jointly sponsored well child clinics.

(*f*) Centers for Disorders of Communication—we help screen and prepare workups for any area children being referred to Centers for Disorders of Communication.

I. QUALITY CONTROL

The issue of quality control is being addressed through record review to assure that system is responding to stated needs of the enrolled population. We are currently planning to provide a process of record audit and utilization review which through peer group review will address some of the issues related to the quality of services.

III. UTILIZATION OF ADULT NURSE PRACTITIONERS

Two of our agency nurses received additional training as adult nurse practitioners, (with the back up of local physician preceptors) at a course offered through the University of Vermont. Since completion of their training in 1974 they have been sub contracted part time to the private physician practices of their preceptors. The remainder of their time has been utilized in the following manner.

1. Assignment in area nursing homes under preceptorship of physician to provide physical assessment and in consultation with physician to render continuing care.
2. Assignment as inservice education director for home health services staff.
3. Assignment through an agreement with Northeast Kingdom Mental Health Services to provide, under preceptorship of local physician, physical assessment and nursing supervision of developmentally disabled placed in local community homes.
4. Assignment to develop and implement an adult health education related to breast self examination education and pap smears.

These attempts demonstrate some of the ways that nursing, with sound public health nursing background plus additional assessment skills can have impact on the delivery of primary health care. They also demonstrate ways that nurse practitioners can expand physician and nursing services within a community. They also demonstrate ways in which community health providers can inter relate and/or closely co-ordinate their service delivery to better meet the needs of the individuals served.

There are still issues that must be addressed before nurse practitioners can be optimally utilized. Among others they relate to problems of reimbursement, legal issues in terms of liscensure and credentialling of practitioners, development and implementing standards of practice. However, the attempts described herein can be foreseen as some initial attempts in providing a systemitized network of health services.

IV. THE ROLE OF A BROAD BASED COMMUNITY HEALTH PROVIDER IN THE PROVISION OF COMPREHENSIVE HEALTH SERVICE IN THE COMMUNITY

There is a consistent element that appears in proposed state and federal legislation related to health services, namely emphasis on the appropriateness and least costly setting for care. Historically community health services have suffered because of emphasis upon crisis, episodic care and institutionalization as opposed to continuous comprehensive care in an individuals natural environment. This policy has inhibited the growth of community health services (i.e. less than 1% of medicare costs relate to home health services.)

It has been clearly demonstrated that services provided in the home are less costly than institutional care. For example to stabilize a new diabetic in the hospital with a three or four day admission plus blood tests, medications, physician services could cost well over $700, depending on the area, where the same process if provided under home health services with physician supervision would be approximately $200. However, most third party payors including medicare will not support this alternative.

It would seem the national interest and conscience is now aroused to begin to emphasize home care and ambulatory care, wherein institutional care may become the alternative.

We believe that community health services are unique and should be promoted and expanded because:

1. They focus on total individual, family and community, and those factors that impact on health; they promote comprehensive continuous care as opposed to fragmented, duplicated and specialized care for parts of individuals or parts of families.
2. They encompass health education and counseling in every contact with an individual, family or group.
3. They encompass coordination, advocacy and outreach in meeting community and family health needs.
4. They promote citizen participation in planning and policy making.
5. They care for people and populations in their natural environments throughout their health care cycle.

EXHIBIT A

CALEDONIA HOME HEALTH CARE AGENCY, INC.

St. Johnsbury, Vt.

SERVING TOWNS OF GROTON, RYEGATE, PEACHAM, BARNET, HARDWICK, WALDEN, DANVILLE, ST. JOHNSBURY, WATERFORD, KIRBY, LYNDON, WHEELOCK, BURKE, NEWARK, SUTTON, SHEFFIELD, CONCORD, STANNARD, GREENSBORO, LUNENBURG, GUILDHALL, EAST HAVEN, VICTORY, GRANBY AND MAIDSTONE

The Caledonia Home Health Care Agency, Inc., is a non-profit charitable organization certified for home health services under Medicare and Medicaid and accredited by the National League for Nursing. In 1975 we made 11,659 visits to 550 individuals, an increase of 8% from 1974. No one is denied service because of inability to pay. Frequency of visits depends on need but can vary from daily visits to once every two weeks.

The Agency gives part time professional nursing care to the sick and disabled at home through a close working arrangement with the patient's physician. Other therapeutic services available are physical therapy, occupational therapy, speech therapy, medical social services and homemaker-home health aide services. All age groups are served including infants and children.

These services are supported through funds collected from the patients, Medicare, Medicaid and other health insurances; town appropriations and donations.

All agency programs emphasize health services for the whole family. Consideration is given to health education, supervision and counseling as well as in caring for the sick at home. In this emphasis is given to the prevention or early detection of disease.

Additional health services not available through other community agencies are provided to more than 700 individuals. Included are Expectant Parent Classes in the Lamaze method held at Northeastern Vermont Regional Hospital; a comprehensive pediatric service for medically indigent children at the Child Health Center in St. Johnsbury, and preschool health services for Headstart, the Lyndonville Parent Child Center and the St. Johnsbury Early Education Program. Adult Health Education and screening programs in "Breast Self Examination and pap smears were initiated this fall. Nursing services are contracted to the St. Johnsbury Planned Parenthood Clinic, and area physicians.

It should be remembered that home health care can prevent, shorten or delay unneeded nursing home or hospital care, help families maintain the elderly at home making more meaningful living possible and, finally, that care at home is always the least costly setting for health care.

We respectfully ask for your much needed support for the coming year. The appropriation requested is based on population and bad debt loss. Our audited annual report including financial statement is available to anyone at our office.

Respectfully submitted

JOAN M. BLANKINSHIP,
Director.

EXHIBIT B

Objectives of Vermont's children and youth program

The primary objective of Vermont's Children and Youth Program is to promote the health of children and youth, particularly in areas with concentrations of low-income families.

Sub-objectives are as follows:

1. To provide comprehensive health care and services to children and youth who otherwise would not receive such care and services for financial and other reasons.
2. To reduce preventable illness and disability among children and youth and to *ameliorate* chronic conditions amenable to treatment.
3. To increase the quantity of needed services and make them more readily available to the population to be served.
4. To better coordinate and more efficiently administer health care services for children and youth.
5. To demonstrate the effectiveness of a multi-disciplinary approach to the health problems of children and youth.
6. To encourage families to assume responsibility for their own health care and to utilize health supervision services for their children.

7. To promote appropriate utilization of health care and other community resources by the population to be served.
8. To demonstrate patterns of health care delivery which may be duplicated and expanded upon by other providers.
9. To develop and utilize alternative sources of funding for health care and other services for the population to be served.
10. To explore the cost-effectiveness of various patterns of health care delivery.
11. To collect, evaluate, and utilize data regarding the provision of comprehensive health care and services to children and youth.

STATEMENT OF MRS. KAREY YOUNG, WEST GLOVER, VT.

I want you to know what I believe about the *Vermont Rural Health* plan.

As a Bible-Believing, Christian mother of three children, living in a rural area of Vermont, this plan is of interest to me.

This plan proposes a threat for the following reasons: (1) it endangers our "*life, liberty,* and *pursuit of happiness,* as guaranteed in the U.S. Constitution which you have sworn to uphold; (2) it forces undue federal government control upon the U.S. citizenry in such matters as number of children, abortion, physical health, mental health, freedom of choice of doctor desired etc.; (3) it is an attempt toward the advancement of "one world government" in which *all* must be godlessly controlled or dictatorially ruled in *every* aspect of our lives (i.e. physical, mental, financial etc.) in order for its successful attainment. [Please read the enclosed tract of "Signs of the Coming One World."] (4) it is the "*foot*" in in the door to one-world control.

This rural health care plan is preposterous and ridiculous. We have been able to get the health care we need and with God's help and great mercy we shall continue to do so without unsolicited assistance.

This is 1976 A.D., two hundred years after the signing of the *Declaration of Independence.* Independence from unjust rule, and freedom to live without oppression and to worship God was the desire of the colonists and is the desire of God-fearing Americans today.

This year as the Bicentennial is celebrated, let us not be unduly oppressed by federal control. The Bicentennial celebration is a farce if we are continually burdened with unwanted, costly government controls which restrict our freedom and lead us into bondage.

As Patrick Henry said, so let our watchword be today, "*Give me liberty or give me death*" or as on New Hampshire car number plates, "*Live free or die.*"

George Washington said, "*It is impossible to rightly govern the world without God and the Bible.*" I ask you, Is America heeding this admonition of the Father of our Country? Why not? That is sound advice.

The Bible says,

"Why art thou cast down, O my soul? And why art thou disquieted within me? *hope thou in God:* for I shall yet praise him, who is the *health of my countenance,* and my God." Psalm 42:11.

For more readings on health from the Bible I suggest and recommend reading Psalm 67; Proverbs 3:7, 8; Proverbs 4:20–22; and Isaiah 58: 6–8. Read KJ version.

On October 3, 1974 Phil Dwight of Chester Depot, Vt. member of the Governor's Committee on Children and Youth, and spokesman for the Day Care Advisory Council, said that Early Periodic Screening, Diagnosis and Treatment (EPSDT) should cover all geographic areas and be for *every* family. This evaluation is not necessary. The Bible says, "*Judgement must begin at the house of God.*" I Peter 4:17

Unregenerate people with a humanistic goal ought not to subject their godless ideas upon those who do not want them.

STATEMENT OF DR. STOKES GENTRY, M.D., VERMONT CHAPTER CHAIRMAN, AMERICAN ACADEMY OF PEDIATRICS, BURLINGTON, VT.

You will be receiving (if you have not already done so) communications shortly from three of our Chapter members, Doctor Coffin, Doctor Narkewicz, and Doctor Holmes. They will be speaking for our Chapter at your hearings on Rural Health Care Delivery. Doctor Holmes, particularly, has grappled with

the problems of Rural Health Care Delivery at the grass roots level. Doctors Coffin and Narkewicz have been more involved in administrative and organizational type activities relating to this area.

The Vermont Chapter of the American Academy of Pediatrics as a group endorses your efforts in this area. We are pleased to have the opportunity to testify.

STATEMENT OF FRANK X. MACNEIL, EXECUTIVE DIRECTOR, FRANKLIN-N. GRAND ISLE, MENTAL HEALTH SERVICE, INC., ST. ALBANS, VT.

In response to your request for written testimony for the field hearings on rural health care, I'm submitting the following information on primary mental health care delivery in rural Vermont.

The focus of your subcommittee hearings is on primary health care, so I will give a detailed account of our outpatient and emergency services, the principal channels through which new patients enter our mental health system. I will also discuss to a lesser degree other mental health services and some problems we encounter.

Our mental health delivery system does not differ essentially from that of the other nine (9) community mental health centers in the state except probably in terms of the number and variety of professional disciplines of the staff and some variation in programs. Our agency, Franklin-N. Grand Isle Mental Health Service, Inc., is responsible for the mental health needs of the 35,000 residents of Franklin and North Grand Isle Counties. The mental health system we have established must deal with a broad array of problems requiring a multiplicity of services delivered over varying time spans. Avenues of entry into the service are by: (a) direct referral, (b) through our 24-hour emergency service.

(a) An individual seeking help may walk in our offices located in St. Albans or at the satellite office in the Community Health Center in Enosburg Falls. In addition, appointments for service can be made by phone or by mail. A large number of clients are referred by family, physicians, nurses, school administrators or teachers, judges, lawyers, clergy, police, probation officers and by personnel from community service agencies, in particular, Home Health Agency, Public Health Service, Social Rehabilitation Services and Employment Security.

Our outpatient service provides direct clinical services to children and adults, from the preschooler to the elderly. In general, these services are for people who need and can benefit from psychotherapy or counseling sessions, one or two hours weekly. Clinical services include individual, group, marital and family therapies, chemotherapy, alcohol, and substance abuse counseling, psychiatric, psychological and social service evaluations. Clinical services are provided at the outpatient clinic in St. Albans on a daily basis Monday through Friday and at the Enosburg Falls Clinic, on Wednesdays each week. Evening sessions are scheduled on Wednesday and Thursday for clients whose work schedules require it. The clinical staff is comprised of one full-time and three part-time psyciatrists, five psychologists and three social workers.

(b) Our emergency service provides immediate mental health care and evaluation for persons in crisis, 24 hours a day, seven days a week. Emergency service is secured by calling the regular agency number anytime. After regular clinic hours and on weekdays, emergency calls are channeled through Kerbs Hospital switchboard. In either case, the operator records the name and telephone number of the caller. This information is relayed to the mental health worker on call who will return the call and respond as the crisis dictates. The clinical staff, plus two psychiatric nurses rotate on emergency service.

2. Area served—Franklin and North Grand Isle Counties. In 1975 calendar year, a total of 798 clients were served in our outpatient and emergency services.

3. *Scope of Care:* In a separate appendix you will find a detailed description of the mental health services delivered by Franklin-North Grand Isle Mental Health Service. This is evidence of our attempt to provide comprehensive mental health service to all our people. Our Day Center and After Care Program involves 130 clients and our Developmental Disabilities Center serves 160 clients, mostly adult retarded. In addition, our community consultation and education programs involve about 3,000 collateral contacts.

4. *Data on Cost Effectiveness:* Our agency utilizes the Multistate Information System (MSIS) an automated recordkeeping system for basic client and statistical information and Accounting Corporation of America automated pro-

grams to handle our fiscal data. Neither system has melded the fiscal and statistical information together in a format that will generate an accurate unit-cost estimate. Some data has been compiled and processed manually but uncertainty exists whether the cost effectiveness figures obtained would be sufficiently accurate to warrant publication.

5. *Sources of Current Funding:* Our budget for fiscal year 1976 is approximately $625,000. Sources of funding are varied:

	Percent
Patient fees	10
Local town contributions and school contracts	5
Vermont Department of Mental Health Government and Aid	17
Other State contracts	8
Federal funding sources including:	
CVMHC staffing grant (NIMH).	
Medicaid.	
Medicare.	
NIDA (DATAC)	55
Other insurance carriers	5

Patient fees are in a sliding scale based on ability to pay. No one is denied service because of inability to pay. In addition, in December 1975, the agency obtained a loan for $50,000 (terms—40 years at 5%) from Farmers Home Administration Agency for purchase of Fairfield Street School as a permanent site for our Developmental Disabilities Center.

6. There is a lack of stable funding either State or Federal for most mental health programs. We are often at the whim of federal grant programs and/or other fee-for-service (e.g., Medicaid) programs requiring rigid conformity to constantly changing regulations and specifications on how, when and by whom services must be delivered before money can be received. It is extremely difficult to attract and retain experienced qualified staff. This year FY '76 is the first year we have had a full-time psychiatrist on staff, yet all federal and state programs that involve mental health service delivery contracts require supervision or prescription by a psychiatrist. Psychiatric consultants are expensive, usual per diem cost is $150–$175 plus travel. A number of reasons seem to militate against a flow of psychiatrists and other qualified mental health practitioners into our area.

(1) There is more money in private practice. Even a medium size city like Burlington, a city with a university has a plethora of psychiatrists, psychologists and social workers in private practice. Small rural towns or cities, with high unemployment and fluctuating impoverished economy, may have a certain charm and tranquil attractiveness but are not viewed as a lucrative private practice market.

(2) Work-load can be overwhelming. Any average size mental health clinic with 24 hour emergency service needs the equivalent of at least two full-time psychiatrists to handle the work-load and supervision.

(3) The real or fancied notion re. the lack of adequate social, educational, cultural, advantages often inhibits recruitment of topnotch mental health personnel.

7. Our mental health center like most rural centers, does not house within its walls the range of services necessary to provide comprehensive care including social, medical, vocational, educational, rehabilitative and legal services. In order to insure continuity and comprehensiveness of care, it is necessary for us to rely on a range of supplementary referrals to appropriate resources available throughout our catchment area. In addition, accessibility is a major factor in our service delivery system and we contract with Home Health Service to provide follow-up, medical check and on occasion outreach services where distance makes it very expensive and onerous for our mental health staff to visit particular patients. Our relationship with both local hospitals, area physicians and allied health professionals is a mutually helpful effort to collaborate and coordinate our particular range of expertise for the health and well-being of our clients and the enhancement of comprehensive health care delivery.

8. "*Evaluate* and be *accountable*" are two legislatively mandated performance criteria that are the keys to quality mental health care delivery. In our agency, evaluation takes several forms. (a) Self-evaluation; whereby our Management Information System supplies us with data about the number of clients entering and utilizing our system, their characteristics and tracks them through the

various services within the system. In addition, all our financial data is programmed for speedy and accurate retrieval. Client and community impact are measured by simple questionnaires focusing on the clients appraisal of services received and community assessment of the visibility, accessibility and effectiveness of our program. Such client and impact data help us monitor client utilization of services, their effectiveness and thus help us make decisions regarding modification or elimination of programs and to establish priorities. (b) Quality assurance is a function of peer and utilization review. Case review and peer supervision in-service training for staff and staff activity data assist us with overseeing the quality of care delivered to clients and helps to maximize the efficient use of staff time. (c) External evaluation is a function of the standards or performance criteria demanded by the State Department of Mental Health and NIMH to insure delivery of quality service. Receipt of grant and service contract money is predicted on fulfillment or compliance with their standards or criteria. Biannual site visits are conducted by the State Department of Mental Health and annual visits by NIMH and the other federal agencies (e.g. NIDA) from whom we receive funding for particular programs. Besides these formal evaluation mechanisms, our Board of Trustees, made up of community people from all sections of our catchment area, not only assists with need assessment, but monitor closely the impact of our services in the community. Our goal and objectives as an Agency is the delivery of quality mental health services to the population we serve and we try within the limits of our time and talents to insure that goal. We are aware that accountability is a necessary component in efficient management, however, it can become the tail that wags the dog as more and more time is spent by staff keeping records, and filling forms and as a result, less time in direct contact with patients.

9. *Some Observations & Concerns:* With cautious modesty I assert that community mental health service delivery has had a significantly positive impact on the health and well being of the residents of the State of Vermont. The true impact is not measured in terms of client utilization or fiscal data, but in terms of intangibles, the positive effects generated in people, the relief from pain and distress, the satisfaction, the hope, the encouragement that we brought to the clients we served and the myriad ways we were a force for good in our communities. In Franklin and North Grand Isle Counties, our population has developed a set of expectations of good care from their community mental health agency. We have reduced our admissions to the State Hospital and have effectively deinstitutionalized by caring for increased numbers of patients in the community. As noted earlier, we provide effective support programs for ex-residents of Brandon Training School that have been moved out of that institution into the community.

In the course of delivery of mental health service we became very aware of our deficiencies re. accessibility but we share this problem with all other service agencies. There is no formal transportation system in our counties, most outpatient clients have access to cars and those who do not, we try to accommodate by home visits either by our staff or through a contract with Home Health Agency. We provide transportation for our Day Center and Developmental Disabilities Center clients, from their homes to the centers and return by means of a trio of buses. But this system is expensive and often inefficient.

Increasing demands for service, taxing staff time and expertise, limited funds are factors that present the Agency with the irritating problem of reestablishing priorities. What services do you de-emphasize or eliminate? If a center is to be responsible for the mental health needs of the total catchment area, indirect service i.e., those activities not directly related to client care (community consultation and education, staff training and development, program evaluation and research) are basic and yet financing of mental health centers has become more and more a function of fee-for-direct service type contracts. Indirect services especially consultation and education are necessary for primary and secondary prevention, but do not generate revenues, so that in the future, they are likely to be given less emphasis or dropped entirely. The move away from basically preventative services is not a philosophical change but one necessitated by the cold facts of financial survival. PL 94–63 speaks to this problem but the C&E grant regulations are difficult to comply with and the money appropriated for this is insufficient.

Money for services is a perennial problem. Some system of continuing support must be devised to guarantee the continuation of existing services and insure quality care for those harassed and debilitated by mental and emotional prob-

lems. Other models in other countries should be explored. Some Canadian Provinces for example, Nova Scotia, have stable funding mechanisms that might be effectively imitated in Vermont and on a national level.

As mental health service deliverers, we are acutely aware of the lack of organized and consistent medical services in our counties, so we would support a model that provides comprehensive primary health care services including mental health care. Our system of delivery of mental health services is not the acme and while it is effective, it should not be imitated without considerable refinement.

MENTAL HEALTH SERVICES—PROGRAM DESCRIPTIONS

The Franklin-N. Grand Isle Mental Health Service (FNGIMHS) is a private non-profit community operated comprehensive mental health center serving the residents of Franklin and North Grand Isle Counties. All people are eligible to receive the services of the FNGIMHS regardless of their ability to pay.

The FNGIMHS provides multi-disciplinary care in five basic services each of which will be briefly described below. The Agency's open from 8:30 a.m. to 5:00 p.m.—Monday through Friday. Emergency service is available 24 hours a day, 7 days a week. For further information, request for services, or Emergency Service, call 524-6554.

OUTPATIENT SERVICES

The Outpatient Service provides direct clinical services to children and adults. In general, these services are for people who need and can benefit from psychotherapeutic sessions one or two hours weekly, without additional mental health and/or mental retardation support services. Clinical services include individual, group, marital and family therapies; chemotherapy, alcohol abuse, and drug abuse counseling, psychiatric, psychological and social service evaluations.

INTERMEDIATE CARE SERVICES

Intermediate care services are for people who require more than outpatient care but less than 24 hour day care. These services are designed to maintain people in the community who previously would have been hospitalized and/or institutionalized. Intermediate care services are provided to the mentally ill and the developmentally disabled through two separate service units: The Day Center and the Developmental Disabilities Center. In both Centers, intermediate care services provide individualized habilitative and rehabilitative therapeutic programs designed to assist people to maintain themselves as functional community residents through improved independent living skills and interpersonal relationships.

The Day Center provides partial hospitalization services to those in acute psychiatric distress and structured day therapeutic activities to those people who have a history of prolonged psychiatric hospitalization and/or illness. Therapeutic services include individual and group therapies, chemotherapy, and independent living skills to include shopping, cooking, sewing, gardening and nutrition educational programs.

The Developmental Disabilities Center serves people who are mentally retarded or have epilepsy or cerebral palsy with significant accompanying impairment of functioning. The goal of this program is to provide developmentally disabled people a chance to achieve their individual potentials. To assist each individual towards this goal, individual treatment programs include work activity, socialization skill, living skill and educational training.

CONSULTATION AND EDUCATIONAL SERVICES

The FNGIMHS provides consultative mental health/developmental disability assistance to a wide variety of community agencies and health providers including local courts, police, the correctional facility, physicians and nurses. The Agency provides extensive consultative services to most county schools. Additionally, the FNGIMHS provides an extensive educational service to area schools, local service organizations, hospitals and nursing homes, including the sponsorship and operation of the Franklin District CRASH School.

INPATIENT SERVICES

The Inpatient Psychiatric Services are provided to agency patients at the Mary Fletcher Unit, Medical Center Hospital of Vermont, Burlington, VT and Vermont

State Hospital, Waterbury, VT for people requiring full-time care. Inpatient care at either hospital is fully coordinated between the hospital and the FNGIMHS to ensure quality and continuity of care. Upon discharge from either hospital each person is provided appropriate follow-up care in the community.

EMERGENCY SERVICE

The Agency maintains an Emergency Service in order to provide immediate mental health care and evaluation for persons in crisis, 24 hours-a-day, seven days-a-week.

Emergency Service is secured by calling 524–6554 anytime. The FNGIMHS telephone operator records the name and telephone number of the caller. This information is relayed to the Emergency Service worker on call who will return the call and provide telephone counseling, and if necessary, arrange for immediate face-to-face intervention assistance.

STATEMENT OF HENRY C. EGERTON, ADMINISTRATIVE DIRECTOR, COMMUNITY HUMAN SERVICE AGENCY, INC., HOME HEALTH CARE PROGRAM, GIFFORD MEMORIAL HOSPITAL, RANDOLPH, VT.

In response to your request of December 18, 1975, we are pleased to submit the following information.

Community Human Services Agency, Inc. is a sponsoring and administrative Agency dedicated to organizing and managing useful community services.

The Home Health Care Program of Community Human Services Agency, Inc. is a community nursing service under which the combined resources of the State of Vermont Public Health Nursing Service and the community-based Home Health Nursing Service are administratively joined in the common objective of a comprehensive community nursing service.

The range of community nursing services administered under the Home Health Care Program are as follows:

- Public Health Nursing Programs:
  - Preventive Health Services:
    - Well child services:
      - Well child conferences.
      - Newborn services.
      - Group health education: child growth and development.
    - Antepartum/postpartum services:
      - Group health education: expectant parent classes.
      - Antepartum/postpartum health supervision services.
    - Health education: all ages, all health problems and/or concerns.
    - Supplemental Feeding Program (WIC).
  - Secondary Prevention Health Services:
    - Tuberculosis:
      - New case investigation/management.
      - Contact and suspect investigation/management.
      - Area tuberculosis screening clinics.
    - Venereal Disease:
      - New case investigation/management.
      - Contact and suspect investigation/management.
    - Handicapped Children's Services:
      - Monthly orthopedic and hearing clinics.
      - Home care services.
    - General Communicable Disease Services.
- Home Health Nursing Programs:
  - Skilled nursing care and physical therapy to individuals and families in their homes (fulfilling physician's medical plans).
  - Nursing services to groups in schools, industries and services organizations on a contract basis.
- Coordinative Activities:
  - Evaluation of health care needs of individuals, families and communities.
  - Coordination with hospitals on discharge planning.
  - Work with other providers.
  - Work with communities.

The Home Health Care Program provides its nursing services to a twelve-town region in central Vermont (Brookfield, Chelsea, Tunbridge, Randolph, Braintree, Granville, Hancock, Rochester, Bethel, Royalton, Pittsfield, and Stockbridge) with a total population of approximately 13,000 people, living largely in remote rural areas. This community nursing service has been in operation since March, 1975, and since that time has been endeavoring to impress upon the communities served the value of its services. The statistics on patients served accumulated during the first ten months of operation do not fairly represent the potential for this Agency. New admissions and home care visits have increased from month to month. The activity for both Public Health Nursing and Home Health Nursing has reached a level that now occupies the full time of four experienced nurses.

We have no discrete scale of values for services provided, by which to test their cost effectiveness, except services provided to individuals, families and groups for which we charge a fee. The fees charged for reimbursable services are sufficient to recover the direct cost of such services. However, home nursing services are frequently rendered to members of low income families for which fees are waived entirely or are assessed according to ability to pay.

Current sources of funding consist of nurses and a nursing supervisor provided by the State Department of Health; reimbursements by Medicaid/Medicare, Blue Cross or other health insurers; payments by individuals for nursing services received; a seed grant from the Department of Health to assist the Agency in organizing and in obtaining certification. Presently, efforts are being made to obtain funds from the budgets of the towns served, to help support the administrative function of the Agency. In addition an application for funds has been made, and is still pending, with Health Resources Development.

Good relationships exist between the Agency and such other health providers as the hospitals serving the twelve-town area and the area physicians. Efforts are exerted continuously to promote better discharge planning practices among these hospitals and to encourage a greater referral input from the physicians in the area. Three members of the Department of Health reinforce the Agency's relationships with other health providers through their membership on the Board of the Community Human Services Agency, Inc.

The quality of the Agency's community nursing services is controlled by several means: the exacting requirements for Medicaid/Medicare certification and recertification; the continuity of monitoring by a permanent Public Health Nursing Supervisor (who has a masters degree in Community Health Nursing); an active Professional Advisory Committee consisting of independent health practition who are not part of the Agency's organizational structure; and regular audits of Agency records by: a staff peer review group; a Record Review Committee; and, by Blue Cross record audit.

We express our appreciation for being included in your search for information on Vermont rural health care. We look forward to your forthcoming field hearing and sincerely hope we can contribute useful testimony.

STATEMENT OF DR. RONALD G. GADWAY, D.O., MEDICAL ASSOCIATES, INC., BETHEL, VT.

I read your newsletter for the winter of 1975 with much interest, because of your concern over Vermont rural health care. I know that for some time now, it has been difficult to get doctors to practice in rural areas and there are many rural areas that have inadequate medical coverage.

My experience with government programs in this area seems to indicate that, to this date at least, this has not been very effective in improving or increasing the medical coverage for rural areas. Most of these programs its seems get doctors to be in the area for a short period of time practicing what appears to be—less than optimal grade of medicine, and then when their grants run out the doctor moves on. It is my feeling that it would be better if there were some way of stimulating private enterprise in such a way that doctors would establish their own medical units in rural areas, and operate them on a more permanent basis.

We have a small group practice in Bethel, and find it very difficult to pay for our building's equipment etc., mainly for two reasons. One, because of the tax structure it is very difficult to pay off the mortgage on our building and equipment and still have the cash necessary to pay operating expenses. In this area, it seems that it would be helpful if there were government funds available to

either underwrite a long term loan for the establishment of these clinic groups, or some tax advantage so that it would encourage the doctors to group together and build these as a private undertaking. Two, the fee structures are such that doctors in rural areas generally get a lower fee for office calls and procedures than in metropolitan areas. Because of distances involved in rural areas, and the cost of the facility it is necessary to practice in these areas, the actual overhead cost is probably higher than it is in a metropolitan area. Because of this it seems only reasonable that medicare-medicaid fee profiles should be higher in rural areas than metropolitan areas, and this would help offset some of these costs.

I am sure that there is no simple answer to delivering more and better health care to rural areas, but will be interested in following your progress in exploring this area. If we can be of any further assistance in this, do not hesitate to contact us.

STATEMENT OF DR. GENE BONT, M.D., BLACK RIVER MEDICAL GROUP, BLACK RIVER HEALTH CENTER, CAVENDISH, VT.

Just recently I came across a letter inviting comments about the hearing in February in Vermont. Would you kindly accept this somewhat late, as I just found the note addressed to Lydia Ratcliff on the date this submission was due.

For some 18 years there has been a Black River Health Center located in Cavendish, Vermont. It was designed to serve, primarily, three communities, Cavendish, Proctorsville, and Reading, consisting of about 2,500 people. This health center was to be an out-patient health facility, designed for primary care, community owned and operated and through which they hoped to attract physicians and other health personnel.

Since its inception, 1957, it has operated continuously, starting with one physician and then two. Now, we have two physicians, one nurse practitioner, two physician associates. We cover the original communities intended for it to cover, and approximately 80 to 85% of nearby Ludlow, parts of Weathersfield, Baltimore and North Springfield, a total population of some 7,500 people. A team care approach is provided and we use the Problem Oriented Record System. Total care is provided in the community from pediatric to geriatric care. Hospitalizations are generally taken care of in Springfield Hospital, some 14 miles away and where one physician makes daily rounds. Utilizing the entire team, some 30 patients are cared for in an extended care facility and another 75 cared for in nursing homes throughout the communities.

At the present time, a community based, non-profit organization, owns the facility and equipment. The space is leased by the physicians, where they conduct a private practice. Initial stages of the operation, the community furnished the personnel—secretarial and nursing—for the physicans. This made the day by day business decisions and practice decisions very difficult, because of having to continually submit decisions to a board, completely unoriented to medical practice and their problems. Thus, some 15 years ago, the current business arrangement was arrived at. Utilizing the health care team, the communities are provided with 24-hour coverage by an answering service.

Current sources of funding are through private paying, third party carriers, Medicare and Medicaid. Over the period of years, a modest endowment fund has been formed and the interest from that is used to supplement money for our capital expenditures and new instruments. At the present time, there are no grant funds or project funds that are utilized by this facility. It was entirely developed without any granting or pilot project funds.

The scope of care involves primary care, laboratory and x-ray facilities, to enable the physician to provide excellent primary coverage. The laboratory involves, electrocardiogram, complete blood counts, urinalysis, basic bacteria cultures, selective chemisteries such as blood sugars, BUN, cholesterol, uric acids, and prothrombintimes. The x-ray capability includes chest and extremities. More complex x-rays are taken at the hospital and the more complex chemistries are also done there.

The staff works intimately with the visiting nurses, covering the various towns. They participate in well child clinics and help conduct screening clinics, do physical examinations for physical education and sports in the various

schools. Patients to be hospitalized, are sent primarily to Springfield and for more specific problems, at the Hitchcock, 45 miles away.

Some of the isolated communities in rural areas, could well be served by such a unit as this. It is easily reproducible. There is technical capability to satisfy the requirements of good primary care. The staff is sufficient to provide coverage for one another, so there is adequate time off for rest, recreation and education. The staff is large enough to provide 24-hour coverage for a given community. Such a unit with funding, could be started and would be self-sufficient with 2–3 years, depending on the population base (this one developed very gradually, over several years, with no outside funding). The size of this unit could be expanded to include more physicians and more paramedical personnel. Such units could be funded by local hospitals, to increase the bed census by patients referred there from such units (as has been done in the Chicago area) as well as started by indigenous groups within a community. I think enough experience has been accumulated to make it easily reproducible, and very soon self-sustaining.

STATEMENT OF MARION K. KELLOGG, STOWE, VT.

Before Christmas I heard on the radio that you were coming to Vermont in early February with a committee concerned with health care delivery in rural areas. As a Lamoille County resident this has concerned me for several years. Four years ago I was involved in setting up the new Planned Parenthood clinic in Morrisville, and since that time have been involved not only in PPV but as a Board member of the DIAL hotline in the county, and as participant in several health-related planning groups.

The rural situation is difficult: reaching the public, people that do not read newspapers or do not have ready access to a car to drive the many miles to a PP clinic, a Well Baby clinic, a cancer-screening clinic or whatever. Word of mouth helps spread the word, and outreach workers' cars help drive. But the first is chancey, and the second has been curtailed by cut-backs in funding, since most if not all of the agencies involved depend heavily on government monies.

I hope to get to the hearings next month and once the times are warned will pass the word along. In the meantime enclosed are some materials I got together in the course of my current volunteer work with Planned Parenthood. I call your attention particularly to the enclosed sheet with "considerable rural poverty" underlined in red. Perhaps you have already seen these figures.

The stress in the other material is on the teenager, as that is where one of the biggest problems is with regard to fertility, and talking with Home Health personnel, hospital administrators, etc., etc., I know the problem of ignorance and inaccessibility is common to all consumer groups in rural areas. The teenager has the additional situation where society denies them information via its institutions, particularly the schools. A church or a school here and there does something, particularly in the big towns, but generally, teenagers are considered nonpersons in health matters.

In the meantime a few facts from the Vt. Dept. of Health statistics:

One out of six babies born in 1974 in Vermont was born to a teenager.

Nearly one-half of all illegitimate babies in 1974 were born to teenagers, and one-quarter of all illegitimate babies were born to girls *under 18 years of age.*

Infant mortality in the years 1970–1973 was half again as high among mothers under 20 years of age as it was for the childbearing population at large.

One-third of the legal abortions in Vermont in 1973 were performed on teenagers (not all of these are Vermonters).

VERMONT'S "TEENAGER PROBLEMS" ARE COMPOUNDED BY THIS BEING A STATE WITH CONSIDERABLE RURAL POVERTY

The Vermont State Office of Economic Opportunity's *Profile of Poverty in Vermont 1973,* the most accurate survey and analysis of the state's low income situation, contains the following facts:

12.1 percent of all Vermonters are at or below the poverty level.

One out of every eleven families in Vermont is below the poverty level; half of these families have incomes below $2000 annually.

Poor families proportionately account for more of the state's children than other families—a mean of 3.06 children per family compared to a mean of 2.51 children for all families. All these children are or will be secondary school students and potential post-secondary students.

40 percent of Vermont's poor children do not live in families with both parents present.

69.5 percent of the state's poor live in rural areas.

9.5 percent of all students in grades 8–12 are below the poverty line (the parents of today or early tomorrow).

Profile of Poverty in Vermont 1973 stresses that the situation in the state is far more serious than these figures reflect. Vermont's 12.1% poverty population is well above the Northeast's 8.77% level. More than half of the nation's poor live in central cities of metropolitan areas, but Vermont has no central cities nor any urban area in excess of 40,000 inhabitants. This non-ghetto or low concentration factor makes the state's poor difficult to find and reach.

It is also important to note that Vermont's severe winter climate forces all residents to spend substantially more money for heat and clothing than residents of most other sections of the country. The state also lacks a public transportation system, thus requiring nearly all families to maintain an automobile. Warmth and transportation are essential to survival in Vermont. Current economic indicators show that Vermont's low income population is growing steadily.

(Studies reported in national publications indicate that 20% of live births are unwanted, and that the unwanted children born to the poor are twice the number of those born to the non-poor).

NOTE. (The above, except for the material enclosed in parentheses, is excerpted from a publication received from the Vermont Council on the Arts, Department of Education).

AN ASSORTMENT OF DATA

Teenage first pregnancies[1]

Three-quarters of all first pregnancies for teenagers are conceived before marriage

Two-thirds of all first pregnancies to white teenagers are conceived before marriage—many of the white girls get married so only 50% of births to white teenagers are "illegitimate."

So it would seem that "to marry and then to conceive is the exception among teenagers."

Teenage marriages and divorces[2]

50–85% of marriages among those of school age come about because of pregnancy. One out of two marriages end in divorce at the end of 5 years.

Welfare and teenage mothers

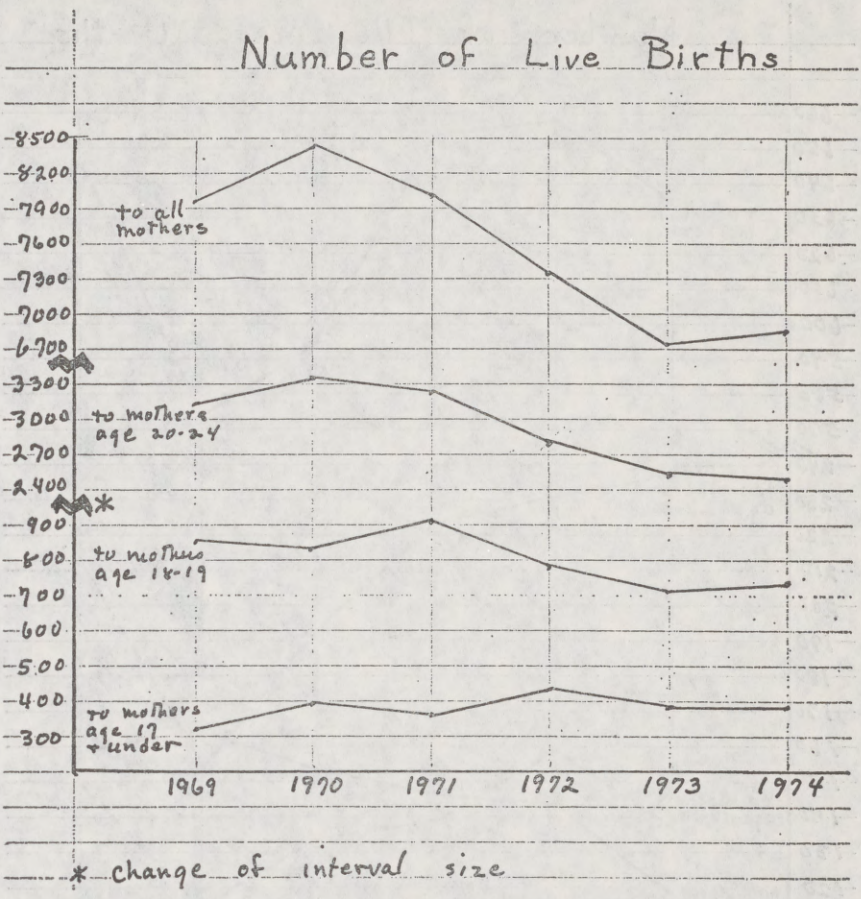
A study in New York City indicated that of the women on welfare, over half had had their first baby at 18 years of age or younger—highly disproportionate when compared with figures for ages at first birth nationally.[2]

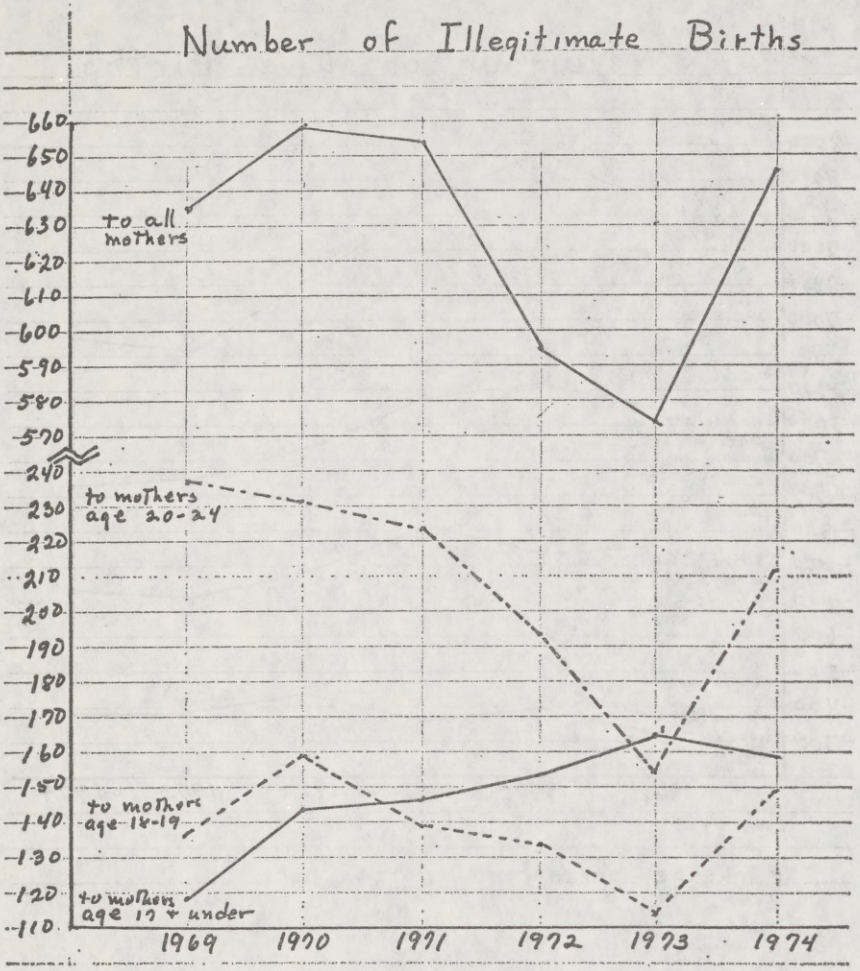
Contrary to myth, it does not seem likely that teenagers purposely become pregnant in order to take advantage of welfare-type benefits, but the benefits do lessen the penalties of illegitimate childbearing.[1]

The costs of parenthood[3]

Contraceptive services per year	$66
Therapeutic abortion	200
Prenatal care and delivery	1,000
Mother and child on welfare, per year	3,000
Remaining on welfare for 18 years	54,000

[1] Zelnik and Kantner, "The Resolution of Teenage First Pregnancies," Family Planning Perspectives, Spring 1974.
[2] DHEW Sharing, March 1972.
[3] Family Planning Information Office, New Cumberland, Pa.


Number of Live Births
8500
8200
7900
7600
7300
7000
6700
3300
3000
2700
2400
900
800
700
600
500
400
300
to all mothers
to mothers age 20-24
to mothers age 18-19
to mothers age 17 + under
1969
1970
1971
1972
1973
1974
* change of interval size



STATEMENT OF MRS. HIRAM S. HUNN, HI MEADOW, PLAINFIELD, VT.

In as much as I live in a rural area, I am pleased to learn of the proposed hearings to be held in Vermont in February on the issues related to rural health care.

In years past, I have been aware of and followed with deep concern the activities of organizations, such as the Health Service, Inc., Regional Medical Program, being funded by Federal money, to plan and to make available better health care for the citizens of Vermont. I do not question the intent of these organizations but I am concerned that there has been little improved health care for the rural Vermonters. One only needs to look at the statistics: Vermont is 4th in the U.S. in number of physicians per 100,000 population BUT if Chittenden County, which includes Burlington, were not included, the Vermont rated position is 40th in the U.S. This reveals that most Vermonters are far from available physicians and health care.

I believe that every individual is entitled to receive those health and mental health services he needs to enable him to lead a productive and satisfying life

and that such services should be situated as closely as possible to his own community to provide primary and emergency care.

The Northeast Washington County Community Health Service, Inc., a newly organized health service to provide primary health care to six rural communities in Northeast Washington County (Plainfield, Marshfield, Cabot, Woodbury, Calais and East Montpelier) is an example of the kind of health service which I feel needs to be established in the outlying rural areas. It is not a private clinic, owned and operated by doctors, but a clinic with a Board of Directors composed of representatives of the six towns elected at Town Meetings. It is a health service rooted in the needs of the communities which it serves and directed by citizens of the six towns.

I have participated to a limited extent in the Clinic and I have watched its development with great interest. It has had the usual growing pains: inadequate funding; limited facilities for all of the services which the Clinic staff and Board feel are needed to be attended; uncertainty on the part of the citizenry; difficulty in getting community involvement; a potentially good Board of Directors but with many of little experience in health care problems. Progress is being made in all of these areas and the staff, which is enthusiastic and committed, is performing well in serving the primary health needs of the communities which it serves. I should also note that except for the limited services of the Home Health Nurse, there are no health care providers in any of the six towns other than the Clinic and the nearest source of primary or emergency care is at the Hospital in Berlin or the physicians in Barre or Montpelier.

I was concerned that the Regional Medical Program, which is Federally funded and which has funds to allocate, failed through its Regional Advisory Group to Comprehend the uniqueness of the Clinic and did not recognize that this Clinic is the kind of program for which the R.M.P. money was to be used. Due to this lack of understanding, the R.M.P. only funded the Clinic to the extent of about one-third of its program askings. Sometime I would like to discuss with you my concerns about the R.M.P.

I do not know of all the Federal money which is coming into Vermont. Tom Davis, Secretary of the Agency of Human Services of Vermont has said "the nation has expanded medical expenditures in the medical care system from $69.2 billion to $118.4 billion since 1970, a $48 billion increase in five years." And then, he asks, "Are we more healthy now?" I am aware of only some of the Federal money for medical expense purposes coming into Vermont, of how much has gone into socalled "planning for health care" and I, too, wonder if we are any more healthy. Planning is fine, but unless it produces intended services, its product is of no value.

The Northeast Washington County Community Health Service, Inc. is the one health service I know of which is reaching out to the rural areas. You know this area and you know the miles of back roads and the insularity. So many of our people, because of great fears, lack of understanding, and distances, do not seek medical care until it is too late or very serious. The Clinic hopes that through education and available information through community involvement, through an outreach worker who goes into the communities and drives the back roads, many of these people can be reached early through primary care.

For years, as a citizen I have been involved in the Mental Health program in the belief that Mental Health Services should be available to persons in need and as close to their community as possible. There are now 10 Community Mental Health Service agencies in the State and all of them have centers located throughout their catchment area. Much is still to be done, but great strides are being made.

Now, this new Clinic seems to require my attention. Perhaps it is because I am near enough to see the Clinic's building from the rear of my home or because I sense the aches and pains of some of my acquaintances who live on the back roads and do not go into the "city" to see a doctor or because I hear and read so much about the return of money and management of needed services to the local communities, that I want to see if, in this complex society in which we live, the communities are capable of providing the needed services and expend the funds wisely. Finally my concern may arise from seeing so much money going into planning with so little going into providing for the health needs of my neighbor.

I realize that this letter will reach you after January 15, the deadline for written testimony. My concern is not to give testimony before the Rural Health hearings but to share with you my concerns and vision. I am sure that the staff

of the Clinic has sent in the needed and relevant testimony and will be available to testify.

The "Leahy Letters" are read in their entirety and we are watching your activities with interest for it gives us some insight into the activities and problems confronting us all.

Your job as a Senator is not an easy one and I appreciate all you are trying to do.

STATEMENT OF DR. FREDERICK C. HOLMES, M.D., ST. ALBANS, VT.

We have all heard a great deal about the difficulties some people experience in trying to obtain medical care in rural areas. Let me assure you that as physicians from these areas, we share a similar concern in attempting to provide the very same assistance they seek.

I am a practicing pediatrician in a thinly populated, economically depressed area of Franklin County, Vermont. It is estimated that fully 75% of the population I serve is of an economic status that qualifies for supplemental food programs, and by our estimate, 30 to 40 percent of our patients receive Medicaid benefits.

I feel quite strongly that the problems experienced by both patient and physician alike can be categorized in terms of tradition, cost, confusion, and insecurity.

The tradition in our area is still heavily based on one family's dependence on a single physician, frequently only for acute medical problems in a format that usually involves house calls, and an availability on the part of the physician that led to a well-defined relationship that was once mutually satisfying, but is now heavily strained.

I think this has left perhaps a majority of rural families with an incomplete understanding of the way medicine is now practiced. The pressures of the rising costs of providing health care, and the increasing number of patients in need of care, have made it less and less possible for a physician to free himself long enough to visit a patient in his home, while improved communication and transportation have in fact made the house call less of a medical necessity. I am afraid that the family accustomed to an always available ready to come to the home physician may be disconcerted when they find the doctor now with a crowded waiting room, and no free time to visit. In a situation when the physician can no longer come as requested, the patient may assume that he cares a little less, while a busy practitioner may feel the request unreasonably demanding. This exchange, bread of a frequently outmoded tradition, can only strain the relationship needed to provide the best possible care.

Traditionally, it seems that the people of rural Vermont have obtained medical care only when they felt they needed it. Preventive health care for adults is still a foreign concept, and preventive health care for children has only just recently progressed from the time when children were not seen for routine care from the time of birth until they reach school, the assumption being that they seem to be okay, and besides their parents knew they would have to receive their routine immunizations free from a clinic before they would be permitted to enter the first grade.

Medicine has come a long way since then, whether is the detection and management of a symptomatic elevated blood pressure in an adult, or a mild hearing deficit in a child; while we are trying to assure our patients the rights to the best quality of life, their traditional interpretation is that there is no need for this form of medical care, perhaps only because the parents never "needed it," and our current attempts seem unnecessary, complicated, frightening, and expensive.

As we try to foster improved health based upon our understanding of what the future will bring if silent problems are not detected early, the traditional rural interpretation is that the patient will only go to the doctor if his body does not work in the manner to which he is accustomed. Frequently, we don't even have an opportunity to improve his concept of what good health should really be.

Traditionally, each rural physician "did his own thing". He was a solo practitioner. The complex interrelationship you are accustomed to now with your personal physician, and the physician who covers for your personal physician, and the consultants who assist your personal physician, just didn't and in many areas does not exist for the rural practitioner. These gentlemen who literally

did try to be always available, and did make house calls, also were not physically able to be always there when they were needed, and there occasionally wasn't anybody else at the other end of the phone when a patient called. What happened....

The rural patient accustomed to infrequent visits to "his" doctor, only at times of illness, found that his doctor wasn't available, and there wasn't any other form of guidance or help offered. The patient then had to reach out for care in the only other form he was accustomed to, and he walked into the local hospital Emergency Room, perhaps for a problem that need not have been seen at all.

He is no longer in control of the situation, but he does quite rightly assume that somebody will take care of him. He will then have to wait until another physician can leave his busy practice to come and see this frequently inpatient and confused, but hopefully grateful patient who will probably have to pay more for his care when seen in the hospital setting.

It may seem a bit unbelievable in this day and age of optimal transportation and communication that there are still situations where a rural family can still rely solely on a single physician for only acute medical care, in a situation that can literally leave that family almost completely out of touch with the system that could assure the health of that family were their usual physician not available, but believe me, it happens regularly.

The cost part of the problem is a great deal more straightforward. Nobody can afford it. Slowly but surely, we seem to be headed for a perplexing situation where we will find that not only will the patients be unable to afford medical care, but the physician will no longer be in a situation where it is possible to keep fees low, because of his own escalating costs.

In our area, the most fortunate are those entitled to Medicaid, in that they bear no responsibility at all for the costs of their medical care. Those with insurance programs, usually provided as a benefit by an employer, frequently must pay a percentage of the cost. The degree to which the patient is responsible varies greatly, dependent upon the nature of the illness, where the patient is seen, and the insurance coverage that the patient has.

Unfortunately, the patient usually desn't begin to understand what his insurance actually offers, but unless the insurance is offered by an employer, many families cannot efford the rising costs of this protection. This means that a large percentage of our rural population is left with no help at all in attempting to meet the costs of medical care. These people are those who are too wealthy for Medicaid, and yet not in the employment of an organization which offers medical insurance as a benefit. By exclusion, this leaves the so-called "working poor".

As farfetched as it may seem, it is possible for a tenant farm laborer with several children whose weekly income may be no more than about $100 to be ineligible for Medicaid. A routine visit to our local hospital for a simple ear infection will cost that family a minimum of $43. That means for one routine childhood illness, that family will assume a significant debt, far out of proportion to their income. Can you imagine what would happen if any of their family members were to sustain a major accident or illness requiring hospitalization?

When a simple routine illness is financially so handicapping, it is easy to understand how a family of this income level would not take their children to a physician for anything, but what they would consider the bare minimum of health care, i.e. for crisis; and because of their lack of experience, they frequently wait longer than they should have meaning that the illness has progressed to an unnecessary extent, and besides they feel uncomfortable because they are not used to "going to the doctor".

At the other end of the spectrum, the physician now finds himself in a perplexing dilemma. The cost of an office visit is crudely determined by the cost of providing the services the patients require. In my office, we are in an unpleasant situation where my employees are entitled to an income which increases proportionately with the cost of living. The current dismal morass, that processes our Medicaid claims often appears to be confused beyond comprehension requiring that periodically we hire another girl just to reprocess payment requests that are rejected due to inefficiency and confusion; and the skyrocketing costs of malpractice seems to be beyond my understanding.

The dilemma is that we are forced to accept rapidly increasing costs which would suggest increased fees which are already much too high for the people we want to care for. At a time when the emphasis in medical care is and should be a comprehensive approach toward all aspects of a child's development, we seem

to be forced to either spend less time and see more children, or make the care even less accessible by raising the cost. It is perhaps most distressing that the people who we'd most like to care for, perhaps because we feel they need us the most, are those for whom our services are least affordable.

The confusion aspect of our complex situation is perhaps the most unnecessary, because it is a modern one. Previously, I alluded to the inefficiency of the solo rural physician who works with only a tangential relationship to his peers. Now we must deal with multiple new state or federally inspired or funded projects, all with the same purpose in that they propose to improve the quality of our health, but frequently waddling through their own domain in the health care field with duplication, and unnecessary competition.

We seem to be always one or two steps distant from the overwhelming variety of programs that have flourished recently, both within and without the medical profession per se, while we all dream of a glorious well-orchestrated team approach resulting in healthy children nurtured in a system of professional harmony; such is not the case.

While in urban areas, it seems that the perplexities of various specialists dealing with health, education, and welfare of a child may not communicate well with each other, in rural areas, we cannot afford such luxury, but rather see the same basic competition or lack of coordination in attempting to provide the basic routine health care that might be taken for granted elsewhere.

Beside the Medicaid benefits afforded those who are eligible, we now have preschool home enrichment programs: Head Start, Day Care Centers, nutritional supplement programs, private nursing agencies, public nursing agencies, community mental health agencies, and private physicians in the schools. Each seems to have their own slightly different interpretation of what each child best needs for optimal "health," and each seems to feel that perhaps only they can do it properly.

While there is no doubt, but that all are very capable and extremely well intended, there is an element of confusion injected that makes the sum total of all the man hours invested less productive in terms of the patients cared for than it would be if better coordinated.

This has to be sometimes as confusing or frustrating for the patient as it is for the various people or agencies trying to help him in spite of each other, because the same sort of advice may sound distinctly different when it comes from a different source. I'm afraid I don't understand why we behave this way; I doubt if any of us are all that virtuous.

Perhaps the most overlooked, and yet perhaps one of the most distressing aspects of this flourishing number of programs and agencies is that it is really not as efficient or inexpensive as many seem to believe that it is. There is no such thing as free medical care. I believe the most effective form is that in which the patient comes to a central facility, primarily because it is expensive to pay trained professional personnel for their travel time to outlying areas, time during which they are not seeing patients; but in those situations in which a widespread population cannot come to the physician, he must come to them, and in those areas where several agencies offer similar services, the increased costs and inefficiency are painfully unnecessary. When this cost is confronted with the administrative needs for developing funded programs, they become very costly indeed.

Any physician who has sat down to read any of the innumerable articles dealing with the current malpractice dilemma will understand what I mean by insecurity. Malpractice presents itself as perhaps the most ominous intangible of all. Aside from the direct financial burden which it presents, it poses itself as an oppressive concept, poorly understood, if at all, by the rural physician, and yet feared and respected out of fear. Hopefully, it is just an awkward stage of medicolegal adolescence.

Its biggest burden is a crippling one. It promotes the excess utilization of laboratory and X-ray services frequently overworking an already overworked laboratory or X-ray facility while adding immeasurable financial burden to whoever pays for all of this. It stifles almost all potential for the development of an efficient system that would provide for medical groups to police their own members, and it severely restricts physicians within the confines of their own practices hampering their desires to reach out and assume productive relationships with perhaps other more public health care providers, the whole premise being that you can't be hurt by or share the responsibility for something you don't know anything about.

SOLUTIONS

Basically, before any solutions for the problems of rural health care may be considered, two major obstacles must be resolved. First, people must talk to each other, whether it is a doctor with his patient, or one professional group with another; and second, there must be some form of relief for the disproportionate cost of medical care. The rest is just the logical efficient utilization of such resources that may now exist.

The physician has always had a passive role in the delivery of health care, traditionally sitting in his office waiting for the patient to come to him. To render some sort of a solution, they will have to first address the needs of all patients, and develop an awareness of all people, whether they specifically come to his office or not.

Physician organizations, such as specialty groups, medical staffs, county and state medical societies will have to adopt the same philosophic changes, and deal as vigorously as possible with the lack of education and understanding of all people that currently prevents them from using the current health care system optimally. They must also strive to unify and coordinate all health care providers on a regional basis, so that the time of all involved is well spent, offering a better organized health care system to the patient with an introduction made less awkward with aggressive public education.

Those groups of physicians which have traditionally dealt with medical problems only amongst themselves will have to open their doors to other professional groups who make other, but equally valuable contributions toward the same population. For instance, in our area, the best interest of the group of children for whom we share the responsibility would best be served if decisions involving the monitoring of their health were made with equal representation from all agencies involved, such as the Department of Social and Rehabilitative Services, Mental Health, and local physicians in the schools. Perhaps in such a forum, the perplexing array of programs now in development might be better interrelated to prevent duplications, and to provide a format where all might learn from each other.

I doubt if the time will soon be ripe for some form of subsidized system to make medical care less expensive; unfortunately, until that happens, the biggest obstacle blocking improved rural care will still lie in our paths. I only too well recognize that this is not a popular topic, but I can assure you that a visit to the doctor for a rural family is even more unpopular if it invariably leads to an unreasonable indebtedness. They have no alternatives.

Until this problem has been remedied, we cannot afford them the best in care for their illnesses, and much less a reasonable chance for what you and I casually expect from the health care system we're accustomed to.

All of the organization and rhetoric we can muster is wasted if the people we'd like to help can't afford our assistance.

Rather than a proliferation of programs supported with lump sum grants, I'd rather see the same profile for services rendered become reasonably universal so that any provider, public or private, would be reimbursed equally for the same care offered. Hopefully, this might address, at least partially, the problem of unnecessary expense and duplication with the weaker programs reasonably dying of attrition.

Heaven only knows what the solution to the malpractice dilemma will be. I would feel more comfortable if only it were to be recognized as more than merely a financial burden. Unless the reasonable fear of unreasonable suit is removed from behind every corner, there can be no maximum interrelationship between private and public health care providers, as for instance, the true potential of nurse practitioners cannot be fully appreciated until physicians feel medico-legally more comfortable in providing support for their services.

Effective systems for peer review among physicians will also remain lacking until there can be true freedom to discuss professional shortcomings without the fear of reprisals. Now that we've discussed what's bad, I'd like to describe a few things which I feel are very good.

There appears to be a steadily increasing number of new physicians who have elected to enter the field of "family practice." Trained as such, they will best be able to fill the needs of those rural communities able to support a physician.

The new "expanded roles" adopted by members of the nursing profession have placed them in an ideal situation to serve in the "front lines," bringing health care to outlying rural areas where other assistance might not be readily available.

Satellite health clinics, staffed primarily by nurse practitioners, such as the Champlain Island's Health Center in Grand Isle, Vt., have demonstrated the efficiency and productivity of this approach in bringing health care to rural areas.

Our own Franklin County Pediatric Health Council has, I believe, served as a successful model to demonstrate the viability of a multiagency organization as a vehicle for providing preventive health care in a rural area in coordination with local physicians and schools on a self-sustaining basis without the need for large amounts of governmental funding.

And the Vermont Chapter of the American Academy of Pediatrics has devoted virtually all of its recent efforts towards developing improved pediatric health care delivery systems by working to improve public understanding of what the needs of their children are, and how to obtain them while helping the physician to better provide them.

We all share your desire to work towards a solution for this complex problem.

STATEMENT OF ELIZABETH J. DAVIS, EXECUTIVE DIRECTOR, VISITING NURSE ASSOCIATION, CHAMPLAIN ISLANDS HEALTH CENTER, GRAND ISLE, VT.

My name is Betsy Davis and I am Executive Director of the VNA, Inc. located in Burlington, Vermont and serving Chittenden and Grand Isle Counties. I am pleased to have the opportunity to discuss with you a recently established Health Center, one which we believe to be a model in addressing the health care needs of a rural population.

The Champlain Islands Health Center is located in the town of Grand Isle in Grand Isle County. The county is a series of islands forty miles in length extending to the Canadian border. The population is approximately 3,750. The Health Center was established in May of 1974 as a result of efforts of the Grand Isle County Health Council, VNA, State Health Department, University Health Center and a St. Albans pediatrician. The major goal of the Health Center is to establish a coordinated and integrated twenty-four hour system of health care that is available, accessible and accountable to the people of Grand Isle County. The important features of this Health Center are:

(1) Consumer involvement and governing responsibilities;

(2) Utilization of nurse practitioners as primary care givers with back-up physician availability through telephone consultation and periodic on site visits;

(3) The linkages to the rest of the health care system;

(4) That it is cost effective;

(5) That services focus on prevention and health education;

(6) That it's accountable.

I would like to address each point briefly.

It was through the initiative, support and many ongoing volunteer hours of the County Health Council that the Health Center was established. This group now has responsibilities for program and services planning, budget and contract approval, evaluation and other policy determinations. In addition, a consumer advisory committee has been created which makes recommendations to the Health Council. The VNA and other involved agencies support this local responsibility believing that health care providers must be accountable to the people we are trying to serve. This increased involvement will also lead to increased responsibility, greater self direction and hopefully more demand for a system of health care to which people are entitled.

A nurse practitioner and paramedic staff the Health Center daily. They perform preventive maintenance exams for infants, children and adults as well as treatment of acute or chronic illness by protocol or telephone consultation. Each patient identifies a physician who may be located either in Franklin County or Chittenden County with whom the nurse practitioner communicates and to whom she sends records. Consulting and medical-legal back up are provided by contract physicians who are on site every two or three weeks to perform record audit, establish protocols and see patients with the nurse practitioner on a consulting basis. Volunteers staff an evening and night answering service with a tie-in to physicians at the Villemaire Health Center located in Milton and an affiliate of University Health Center. Home care services are operated out of the Health Center and coordinated with ambulatory services.

The nurse practitioner concept has been well accepted. Almost 800 people made 2,240 visits to the Health Center in its first year of operation when it was open

four or five half days per week. This meant an average of eleven patients per afternoon for one nurse practitioner. 98% of all acute pediatric problems and 93% of all acute adult problems were cared for on site. The remainder were triaged outside the country.

The nurse practitioner serves as an extension of the health care system providing an entry point to total care. It is our task to 1) define those primary care services that can be provided on site in Grand Isle County considering the population base and economics of the area and 2) provide a consistent and reliable service on site and guide the patient through the rest of the health care system.

Again, critical to that system is the involvement of the patient as the coordinator of his/her own care. This means full knowledge, understanding and participation in health care. Patient education and the problem oriented health care record *in the patient's possession* are central to this concept and practiced at the Health Center. This should mean appropriate utilization of health services, less duplication and greater efforts toward self help. This should also mean increased levels of expectations on the health system and greater accountability.

The value of preventive services need not be testified to here. Prior to the opening of the Health Center, the VNA experience on the mobile unit outreach pediatric service showed that 33% of the children seen had no source of regular preventive care and another 45% had irregular patterns of care.

A total health screening service is provided at the Health Center for children and a health check examination for problems that "we cannot afford to miss" is provided for adults. A problem list and recommendations are prepared for and shared with each patient in writing. Some of the problems identified can be monitored by the nurse practitioner, others require further diagnostic evaluation. All patient records receiving the screening service are audited by contract physicians.

The average cost per visit at the Health Center in the first year was $11.55 after deducting developmental expense. For those people utilizing the Center, there was a saving when travel expense and time are eliminated. This raises the main, critical problem facing the Health Center:

> Current Federal and State regulations require a physician on site, directly supervising care in order to collect third party reimbursement through Medicare, Medicaid and most private insurance. If this continues, then the nurse practitioner as an extension of the health care system into rural areas is not viable. Yet, we feel we have been able to create a quality service that is acceptable, accessible, accountable and cost effective.

Reimbursement for nurse practitioner services would partially solve the financial struggle. The population of Grand Isle County is probably representative of many rural areas in Vermont: 58% of the population of Grand Isle earns less than 200% of the poverty level, the most recent unemployment rate was 17%, 29% of the population utilizing the Health Center have no health insurance and only 15% are Medicaid eligible. A sliding scale approach is necessary in order to keep the marginally employed or unemployed in the health care system. Some form of subsidy, particularly for preventive services will probably always be necessary for local, rural health centers. We would like to see any proposed health legislation consider that possibility.

Thank you for the opportunity to share this experience with you.

[The following article was submitted by Ermont Lawrence:]

BACK TO THE BOONDOCKS

U.S. doctors have been increasingly reluctant to practice in rural areas. Besides making less money than their urban colleagues, rural doctors must always be on call. When emergencies occur, they often travel great distances. Though isolated from medical centers and their special equipment and expertise, they must provide a variety of services—from obstetrics to treating snake bites. Still, they must cope with all of medicine's red tape: keeping records, collecting fees, filling out endless forms. As a result many rural communities are often without the services of a doctor and are eager to accept anyone who is remotely qualified. That sometimes leaves them with a doctor who, as one critical observer says, is "a bum, an alcoholic or a drug addict—somebody on the run."

To help entice qualified physicians into the boondocks, a group that included doctors from the University of Utah's College of Medicine independently estab-

lished a nonprofit corporation called the Health Systems Research Institute (H.S.R.I.). The idea has been successful from the start. H.S.R.I. has already supplied badly needed medical help to sparsely populated areas of five Western states, where it now operates eleven clinics and three hospitals. As one doctor recruited by the institute says, "It gives me an opportunity to practice medicine as it was meant to be practiced without all the garbage of fighting with insurance companies and the Government."

Providing the Know-How. H.S.R.I. accomplishes its goal by making a deal with a rural county to take over its medical services. Under the pact, the county provides plant, equipment and finances, while the institute offers the know-how. It recruits doctors, nurses, clerks and other personnel, all of whom are paid directly by H.S.R.I. Though the doctors' salaries—$40,000 to $60,000 a year—may be lower than those of some city practitioners, the rural doctor gets other benefits: four weeks of vacation by his third year, another two weeks a year to continue his education and, perhaps most important of all, a variety of personal insurance policies, including costly malpractice coverage.

Typical of the new generation of country doctors recruited by H.S.R.I. is Dr. Minthorne D. Norton, 38, a graduate of the University of Miami's medical school who quit a family practice in Kentucky to run a clinic in Battle Mountain, Nev. Helped by a physician's assistant, a licensed practical nurse and three clerks, Norton sees about 200 patients a week, including many travelers (he is the only doctor along 120 miles of Interstate 80). In difficult cases, he can call upon advice from specialists at the University of Utah. He also has available the services of an ambulance plane. Best of all, says Norton, he doesn't have to take a "pay cut or suddenly pull a kid out of college" whenever insurance companies hike malpractice rates.

The prognosis for H.S.R.I. seems good. Norton's Battle Mountain clinic, for example, collected, and paid to the county, some $17,000 in patient fees last November—$4,500 more than the county's cost of maintaining the program that month. In fact, H.S.R.I. officials say, they need contracts with only four more communities before the outfit becomes completely self-sufficient. Those contracts may soon be in hand. Inquiries have already been received from dozens of other rural counties in Western states eager to establish their own clinics with H.S.R.I.'s help.

STATEMENT OF ALICE M. WRIGHT, EFNEP, NUTRITION SPECIALIST, THE EXTENSION SERVICE, UNIVERSITY OF VERMONT, BURLINGTON, VT.

The Extension Service is presently involved in the nutrition education and health of rural Vermonters through the Expanded Foods and Nutrition Education Program—(EFNEP).

Our contribution is channelled through an educational program in foods and nutrition carried on by Nutrition Aides who work with low-income homemakers and youth on a one-to-one basis as well as in groups.

Our Aides have been made aware of the following low-income groups who have special health needs:

Expectant mothers: Amount and kinds of food eaten during pregnancy affect fetal growth and development as well as the mother's health. The teenage pregnant woman in particular often does not realize the impact of proper diet on herself and her unborn child.

Infants and Pre-schoolers: Adequate nutrition in the early years of life is vital to the physical and mental development of the child. The one-to-five age group can more easily suffer malnutrition injury.

Adolescents: Vitamin A, Iron, Vitamin C and Calcium are frequently deficient in teen-age diets.

The elderly: An adequate diet is important not only in maintaining good health but also in delaying the onset of some degenerative changes associated with aging.

Aides work with homemakers and youth in the following areas:

Preventive health care in terms of adequate nutrition knowledge, proper food preparation, and home sanitation to promote good health.

Preventive dental care through information and instruction about proper foods for good dental health as well as good dental hygiene practices.

Referral of families with health problems to appropriate sources of help.

We believe that sound nutrition education in conjunction with practical help in food buying and food preparation is an important step in alleviating nutrition related health problems of rural low-income Vermonters.

STATEMENT OF DR. PETER D. ALDEN, M.D., AESCULAPIUS MEDICAL CENTER, SOUTH BURLINGTON, VT.

Although I am sorry I wasn't present at all of the hearing on February 16, concerning rural health, the part that I attended was very informative and well done. I tried to hold back my comments as I was hoping that we would hear questions from some well spoken consumers, but would like to add the following comments to your record.

I am somewhat in sympathy with Mr. Coe's comment that many of these problems would be solved by going the prepayment or health maintenance organization route, and as you know through the Green Mountain Medical Foundation, I have been active in pursuing this alternative in recent years. We have heard recently, however, about many health maintenance organizations going on the rocks, failing to succeed, and about patients being disenchanted with them, and about their rising costs making them less competitive and therefore a much further study is required before one can whole heartedly push this route in the fashion which Tony Robbin seemed to propose. We must still proceed cautiously and slowly with pilot studies and demonstration projects.

As you may know, my colleagues and I joined forces in setting up the Aesculapius Medical Center, an attempt parallel to that of the Given Health Care Center, to provide top quality comprehensive primary medical care to the community of South Burlington, offering all of the advantages to the out-patient that could conceivably be accomplished outside of the hospital. Hopefully, this will result in the reduction in the cost of health care, but as I am sure you know, proving this point is impossible. Henry Tufo has some interesting statistics along these lines, and it looks as though we may cut down the amount of hospitalization required for patients in our primary care service area. Consultation work with patients coming from great distance, however, is more difficult since these patients tend to be hospitalized more and have more complex problems. At the same time, the overhead costs of running this complex, much of which can be attributed to burgeoning paper work requirements, the requests of our malpractice insurers to keep better records with which I don't complain, and the profusion of Medicare-Medicaid claim forms, have risen not out of proportion to the general cost of living, but certainly higher than we expected they would when we made our move. Some of the very practical areas where this interferes with the quality of care is in the implications of taking off a week or two per year for continuing education when the overhead costs of your office expense go on at such a high level, it becomes very hard to make a decision to leave for nonremunerative education. One would like one's income to remain at a level, perhaps not as high as some of the better insured surgical specialties, but at least enough to allow one to send one's children through a schooling sequence that would enable them to follow in your own footsteps should they desire, and to have a couple of weeks of skiing in Aspen. Unfortunately, we are finding that these ideals are very difficult to achieve.

My thinking about the reasons for this are as follows: Medical insurance largely started with hospitalization insurance, which was largely an idea of the hospitals themselves since it became clear that nobody could afford to pay for their own hospitalization and the hospitals would go broke if they didn't do this. Next, it was found that surgical procedures were best insured because few could afford the costs of the surgeon or the hospitalization. However, medical services and primary care services have always been hard to insure because the very insurance of them leads to increased utilization and nobody knows what is the right amount of utilization.

One might get around this reservation if he required physicians or physician groups to publish the principles of practice which would allow one to scrutinize what sort of medical care, and how much of a data base one would recommend for a given patient in a given situation. This is not as difficult as it might seem and Henry Tufo has some experience with this along with many of the satellite group practices with which he has had some involvement. We also have made some headway along these lines. After looking at one's principles of practice, an insurer could ascertain approximately what the costs of applying those principles to a population group might be and could come up with a capitation fee which might be reasonable. For instance, the general practitioner would have to have a different capitation fee as he would be likely to deliver babies, take care of the children, lance boils, set bones and so forth, whereas myself, providing primary care, would not be eligible for payment for those services, but on the other hand would be eligible for payment for services such as

EKG's, treatment of metabolic disorders, gastro-intestinal endoscopy and so forth.

In terms of a model for setting up such a unit in a rural area, I would think that someone, somewhere, somehow with agreement between the AMA, State Health societies, HEW and our magnificent health planning systems, we should decide that for a population base of say 5000 people, coverage with two or three physicians and two or three physician extendors would be appropriate, who would then attempt to encourage or subsidize the development of health care delivery units based on these small groups of physicians providing coverage for each other and allowing them to provide as many of the services as seem appropriate through the help of the extendors. If an area such as Greenwich, Connecticut was shown to be over doctored by these criteria, no subsidy would be available for establishing new groups in that area, whereas if Rochester, Vermont, was shown to be deficient, a service area including a sufficient number of patients to approximate 5000 might be encouraged to set up and attempt to attract a suitable physician and allied health staff, provided the insurance inequities between the better coverage of surgical specialties and the primary care practices were eliminated. I do not believe it would become difficult to attract physician groups in view of the number of people of all professions I see moving to Vermont in spite of the prospects of diminished economic return associated with such moves.

Another example of the inequities of the coverage lies in insurance policies which pay for services provided in hospital emergency rooms where the exact same services be often at a much less expensive rate are not covered when performed in a doctor's office. Somehow at the same time we decide which expenditures of $100,000 or more are of capital expense are justified, we ought to be able to find out under what circumstances and with what frequency services are costing less than $100 should be justified. Incidentally, we are fairly well along in our internal audit, which as you know is another requirement for the successful operation of any such system.

STATEMENT OF ANN JANNEY, R.N., EXECUTIVE DIRECTOR, VERMONT STATE NURSES ASSOCIATION, INC., BURLINGTON, VT.

Vermont State Nurses Association would like to express appreciation for the conduct of the first hearing on rural health care in Burlington on Monday, February 16, 1976.

We were especially pleased by your understanding of the importance of reimbursement for nursing services by third party payers—and your persistence in attempting to discover from *Oliver Fifield*, why such payments could not be made.

You already are well aware of our concern that preventive and follow-up health services be available to the citizens of Vermont. We do appreciate this kind of support.

Ms. Effie Hanchett, our legislative chairperson, was also present at the hearing. She has indicated to me that she and her committee would be glad of any input possible into the development of a model health care plan. (We are following closely Senator Daniels' comprehensive health plan bills—S.136, 137 and 142 and are submitting testimony on the state level).

I believe I sent you the "Essentials of a Health Care System", drafted by Karen Esty and approved by Vermont State Nurses Association Board in 1973. In case I didn't, I am enclosing it now.

HEALTH CARE DELIVERY SYSTEM IN VERMONT

As one of the professional groups charged with the responsibility to provide health care and as the largest single group of professional persons giving that care, (2850 professional nurses living and working in Vermont) we welcome this opportunity to present our views and comments on the subject of a health delivery system in Vermont.

The association is committed to the position that health care is both a right and responsibility of all individuals in the state of Vermont. It is our conviction that in order for people to exercise responsibility for maintaining their health, the health professions have an obligation to deliver comprehensive health

care services which are available, acceptable and very importantly, accessible to all of Vermont citizens.

The government has the responsibility for passing appropriate legislation aimed at achieving such health care services, just as it has the responsibility for assuring that other requirements for physical, mental and social well-being of people are met, such as adequate income, housing, food and education.

Health care emphasizes the maintenance of "wellness" and prevention of illness, instead of the present emphasis upon diagnosis and treatment of illness. This concept promotes consideration of the individual as a whole person in relation to his health care needs rather than viewing him as a problem requiring treatment.

We believe that such health care can best be delivered through the establishment of local comprehensive health care centers which offer preventative, health maintenance, diagnostic and treatment, restorative and protective services The existing community mental health centers are demonstrating the effectiveness of such a system in the field of mental health. By being accessible, these centers have helped clients to continue their roles in their communities rather than being isolated in an institution away from family, friends and neighborhood.

These centers also help keep down the cost of health care by minimizing the necessity for costly institutionalization. This concept could be expanded by providing for a coordinating mechanism which integrates all the health care facilities in a defined geographic area. This would furnish availability and accessibility of comprehensive health care for all people within this geographic area and would resolve the dilemma presently facing many health care agencies, that of having to compete with each other for adequate funding both from private and public sources. This system allows for centralized coordination, planning and evaluation of services with decentralized delivery directly to the people in their communities and homes.

Consumers must have the opportunity to become actively involved in the planning, coordination and evaluation of a health care delivery system. There is much public dissatisfaction with the present non-system of health care delivery. To consider a new health care delivery system without consumer participation would be suicidal. Consumers involved in the planning coordination and evaluation of a new health care system can be the best salesman of such a system. Any corporate structure arrived at through the planning process, should have a governing board composed of consumers and providers of services. It should not be dominated by any single group of professional practitioners.

There should be a partnership between the government and private enterprise to finance a health care system with the government providing a *stable* source of funding for the purchase of health care for those segments of the population unable to provide for themselves. Standards governing health care insurance should be set so that each citizen is assured equal benefits.

We are well aware that the Vermont tax dollars are stretched to their limit and that Vermont citizens cannot afford a tax increase. We suggest that the federal government must consider the achievement of health a goal of high priority and be prepared to provide adequate funds for the purchase of comprehensive health care.

The delivery of health care to the consumer in Vermont needs to be provided by well prepared, skilled professionals. The nurse as a primary care provider in the community is in an excellent position of offer direct health care to Vermont's citizens. By functioning as an integral member of interdisciplinary health care team, the nurse can be in the unique position of providing primary health care, freeing the physician to concentrate on the diagnosis and treatment of illnesses. Some examples of primary health care presently provided by the nursing profession include well child supervision; monitoring of chronic illnesses such as diabetes, chronic obstructive pulmonary disease, hypertension and emotional disorders; and teaching consumers to live within the limits imposed by health problems.

If comprehensive health care is to be adequately provided, it is appropriate that all health care professionals can expect to be reimbursed through third party payers rather than just physicians.

The health manpower situation in Vermont is critical. We believe it is attributable to two main factors—unequal distribution of personnel and a growing lack of employment opportunity for the well prepared, skilled professional. There is not, in our opinion, a shortage of prepared people to provide care.

Those people we have are in the wrong place, many of them poorly utilized by their employers. In an attempt to keep hard pressed health institutions solvent, well-meaning administrators have increased the numbers of minimally prepared, lesser paid paraprofessionals and decreased the number of skilled professionals. To allow this trend to continue will seriously jeopardize the quality of health care services, especially nursing services to the people of this state. We believe that careful assessment and joint planning on the part of Vermont's health practitioners, educators and Vermont legislators can correct some of this difficulty.

We suggest that the current level of health manpower of all types, in all parts of Vermont, be studied carefully. A comprehensive health care delivery system must provide incentives if we are to attract qualified personnel to rural Vermont. The commission may wish to consider introducing legislation which would offer education loans for students in the health care professions. These loans could be cancelled at a specific percentage rate for each year that the health care professional practices in rural Vermont. It is important that any legislation of this kind require such practice outside of the Burlington urban area where, at least presently, the supply of health care professionals is more than adequate.

A commitment to continuing education for its practitioners is a major responsibility for each of the health professions. Nursing has recognized and accepted this responsibility and has developed a program for stimulating improvement of continuing education offerings and a system of recognizing nurses who participate in ongoing learning activities. The assistance of the University of Vermont is important in providing high quality programs for nurses and for assisting inservice educators throughout the state to upgrade the quality of programs at the local level. There is currently no position within the University for a nurse educator in continuing education. Serious consideration should be given to the development and funding of such a position.

The recent legislation establishing Professional Standards Review Organizations (PSRO) will have considerable impact upon the delivery of health care. While the initial focus has been directed at physicians, it is imperative that there be input at early developmental states from nurses regarding norms, criteria and standards for care. It is our belief that evaluation of health care should encompass all health professionals since comprehensive health care includes services of many individuals.

An integral part of any health care delivery system is an organized method of data collection and provision for its appropriate analysis. This provides the basis for organization and coordination of efforts by providers of health services in a community to act responsively to community and individual health needs.

In any attempts at data collection and analysis, there needs to be provision for protection of the privacy of the health care consumer. Assurance of the confidential nature of the individual's health record is essential.

As more sophisticated methods of patient care recording are developed and providers of services attempt to share information, the patient needs to know who has access to information and with whom it will be shared. Some efforts are being made to give the patient a copy of his own record. The legal implications of current and future record keeping practices need further study.

We believe there should continue to be a system of state licensure for professional practice which standardizes such practice and which facilitates interstate movement of qualified practitioners. The Vermont State Nurses Association is extremely concerned over the *Report of Licensure and Related Health Personnel Credentialing* prepared in response to Public Law 91–519, Section 799A (an amendment to the Public Health Service Act) and presented to the Congress of the United States on July 8, 1971. Part six of that report recommends that the licensing of individual practitioners be replaced with a single license to the institution, to be issued by the State Agency licensing the institution. This method of licensure removes the onus of responsibility and accountability for one's actions from the individual to the institution, a non-individual. In essence, *no one* will be responsible or accountable for the quality of health care. (I cannot imagine a more serious threat to the health and welfare of Vermont's citizens.) Such a licensure mechanism would impede, if not prevent, interstate movement of qualified health practitioners in the health care system.

The Vermont State Nurses Association has based its comments this evening on what it considers to be the essential elements of a health care delivery system. We have listed for the record our statements of belief and we urge your

serious consideration of them as you study and attempt to make health care in Vermont responsive to the needs of all Vermonters and accessible to every citizen in terms of proximity and cost. As the largest single groups of health professionals in the state and the nation, we believe that nursing holds the key to many of the solutions to our current health problems. The Vermont State Nurses Association stands ready to assist in any way that it can.

Thank you for this opportunity to speak on this vitally important issue.

THE FOLLOWING IS A SUMMARY OF WHAT THE VERMONT STATE NURSES ASSOCIATION CONSIDERS TO BE THE ESSENTIAL ELEMENTS OF A HEALTH CARE DELIVERY SYSTEM IN VERMONT

1. Health care is a right and responsibility of all people.
2. Government has the responsibility for assuring through appropriate legislation the accomplishment of this goal, just as government has responsibility for assuring that other requirements for physical, mental and social well-being of people are met, such as adequate income, housing, food and education.
3. There should be a partnership between the government and private enterprise to finance a health care system with government providing a stable source of funding for the purchase of comprehensive health insurance coverage for those segments of the population unable to provide for themselves.
4. The government should establish standards governing health insurance coverage so that each citizen is assured equal benefits.
5. There should be integrated health care systems to deliver comprehensive health care services which are available, acceptable and accessible to all people.
6. Integrated systems for delivery of comprehensive health care services for specified population groups should be developed from community health planning mechanisms in which consumers are involved.
7. As a system evolves there should be continued opportunity for consumers to evaluate its effectiveness in meeting their needs.
8. Comprehensive health care consists of preventive, health maintenance, diagnostic and treatment, restorative and protective services.
9. A comprehensive health care delivery system should provide for all types of skilled health practitioners in sufficient numbers to meet the health needs of all citizens.
10. There should be joint planning by all health professions for recruitment, preparation, utilization and compensation for health manpower.
11. There should be professional, intellectual, social and financial incentives to bring about deployment of health manpower to those areas where there is scarce supply.
12. There should continue to be a system of state licensure for health professionals which permits optimal utilization of the skilled practitioners in the health care system, and which facilitates interstate movement of health professionals.
13. There should be provisions within a health care system for the nursing profession to fulfill its function according to established nursing standards and to collaborate with other disciplines in evaluating health care practices.

Resolves, That the House of Delegates of the American Nurses' Association calls for the enactment of legislation to establish a program of national health insurance benefits within the social insurance system know as Social Security.

That the national health insurance provide for compulsory, universal coverage so that all people are entitled to equal benefits. That benefits for everyone covered by national health insurance system include the full range of comprehensive health care services.

That the system of benefits be clear and the systems for payment to providers of health care services be simple and capable of interpretation and efficient administration.

That the national health insurance program be financed through payroll taxes, payment of premiums by self employed, purchase of insurance coverage for the poor and unemployed from federal, state and local general tax revenues as appropriate.

That the data systems necessary for effective management of the insurance program protect the privacy of individuals.

That the system of benefit payments allow for options in entry in the health care system through payment for primary care and health maintenance services rendered by certified independent nurse practitioners, and through organized nursing service arrangements that meet standards acceptable to the nursing profession.

That the plan for national health insurance provide for appropriate and economical utilization of health care services, and of the services of nurses, physicians, dentists and other professional health care personnel.

That the plan include provisions for peer review of services that will protect the right and the responsibility of each health care discipline to monitor the practice of its own practitioners.

That there continue to be a system of state licensure for the practice of nursing which facilitates interstate movement of qualified nurses, and fosters optimum utilization of the professional nursing role in health care.

That provision be made for consumer participation in periodic evaluation of the national health insurance plan.

STATEMENT OF DR. HANFORD L. AUTEN, M.D., F.A.C.S., CLAREMONT, N.H.

Your televised public hearing in Burlington and elsewhere on February 16 has probably contributed to your appreciation of the difficulties involved in providing medical service in rural areas. One difficulty in such hearings, of course, is that those who have axes to grind are very likely to make themselves conspicuously available, while the rest of us stay on the job of delivering medical care to patients, as I had to. Yet, sometimes, even those of us in trenches, so to speak, have ideas which might be relevant to your deliberations.

I am a graduate of Dartmouth College and of Northwestern University Medical School and after further training, was certified in my specialty by the American Board of Ophthalmology in 1944 and granted fellowship in the American College of Surgeons in 1951. After service with the Army Air Forces as a Flight Surgeon during World War II. I did not return to my practice in Chicago but came to Hanover, NH, where I served as ophthalmologist in charge at the Dartmouth Eye Institute before joining the staff of the Hitchcock Clinic. I became an Assistant Professor of Surgery (Ophthalmology) in the Dartmouth Medical School and served two years as Chief of Staff of the Mary Hitchcock Memorial Hospital; altogether, as you will recognize, a qualified specialist in an ivory tower.

In 1961, I left the Clinic and the Medical School and opened private practice in this community of about 14,000. Planners, who tell physicians how and where to practice, assert that a minimum population of 25,000 is necessary to keep an ophthalmologist properly busy. My experience refutes this altogether, and I have been happy to see new ophthalmologists moving into my general area, although I find myself no less busy. I have had an opportunity to develop an appreciation of the problems of providing medical care on a much broader scale in my work with the New Hampshire Medical Society, of which I was President in 1974, and the New Hampshire Foundation for Medical Care, of which I was one of the original incorporators and am still a Director.

So much for a background to explain why I feel qualified to express some opinions, based both on my experience as a specialist in an important medical center and as a private practitioner in a relatively rural area. I am in the happy situation of being able to live in a congenial environment, practicing a third level specialty outside of the rarefied atmosphere of a large medical complex. In my opinion, the single most important deterrent to the physician who might otherwise practice in a deprived area—either rural or the urban ghetto—is the lack of stimulating intellectual and social contacts. These are, of course, the same factors which keep other individuals of superior intellectual and educational qualifications from these areas. Briefly, one has to ask, "Would my family and I like to live there?" If not, even involuntary servitude, which has been proposed by Senator Kennedy et al, would not solve the problem. To make an area attractive is a social problem, not medical. One has no difficulty recruiting physicians for such areas as Lake Tahoe, California, or Aspen, Colorado, because these are fundamentally attractive communities. As you are aware, life in the ghettos is hazardous and, since the governments have abandoned their duty to protect their citizens' lives and property, only the most dedicated masochists are likely to choose to practice in such areas. And such people, by and large, do not make first-rate physicians.

One must realize that rural people, by and large, are habituated to travel for all their necessities. My community is a shopping center for people in a radius of approximately 25 miles. for example, and my patients are, in many cases, from

even greater distances. While the local people often cancel because of bad weather, most of those from more than 10 miles seem to arrive exactly as scheduled. Once one is in a car, it is not really more difficult to travel 20 miles than 5. With the beginnings of a semi-public transportation system for the elderly, such as has been initiated here, one can anticipate that even those who have lost their drivers' licenses no longer will be completely dependent upon their neighbors (who have done a magnificent job as individual, concerned citizens).

If you would like to see an outstanding example of what can be done by private physicians acting on their own initiative to solve rural health problems, I commend to your attention the achievements of William H. Gifford, M.D., and his wife, Majorie Parsons, M.D., 175 Main Street, Colebrook, NH, 03576. Their practice covers patients in a radius of about 40 miles, crossing the borders into Vermont and Quebec. Without official governmental treaties, they effectively cared for patients in this large area, and I think that the expenses of a visit to them would certainly be a justifiable expenditure of taxpayers' money.

I am sorry that I could not sit through your hearings, but while others were talking about rural health care, I was busy delivering it. Perhaps you will agree that this, too, is important. I wish you and your committee every success in your efforts and hope that some of my observations may prove to be interesting to you.

STATEMENT OF DR. DAVID R. PARK, M.D., THOMAS CHITTENDEN HEALTH CENTER, WILLISTON, VT.

As Chairman of the State Medical Society Committee on Rural Health, I would like to take the opportunity to thank you on behalf of the Medical Society and those interested in rural health more generally, for the recent Subcommittee hearing which was held here in Burlington. I think the hearing as it was held became an excellent means of mutual communication and was a good example of government involving people at a "grass roots" level.

You implied that the record might stay open for a time for further testimony and I would like to make three points that I am not sure were brought out during the course of the hearing.

The "malpractice crisis" was referred to on several occasions. I feel that this area is a significant problem for anyone entering the health care field at the present time and this was brought out during the hearings. I feel that the problem is particularly critical to rural health care delivery, however, as I think there is good reason to believe it selects most strongly against the smaller, typically lower overhead, relatively newer, generally financially harder pressed facilities that are being set up to deliver rural health care. The so-called attack rate for liability cases in rural settings is still significantly lower than urban centers, but the rural practitioner of necessity has to share the burden of increased premiums and in some cases in our state right now the prospect exists of having to close a facility because of lack of liability insurance being available. Because it hits the rural health care delivery system proportionately harder than others, I think that the problem of increasing liability costs needs to be a special interest of the rural health care field.

A second concern that I have, that I believe affects rural health care delivery systems out of proportion to urban systems, involves the reimbursement for caring for Title XIX or Medicaid patients. It was pointed out during the hearings that rural people are more often not insured at all, but it also is true that there is a significantly higher proportion of them who are on Medicaid programs than would be the case in a suburban and even in most urban settings. In our area the current reimbursement schedule for Medicaid patients is based on a 1968 Fee Profile, such that, as an example, an eleven dollar ($11.00) charge for a routine office visit is reimbursed at a level of $7.00 for a Medicaid patient. This difference is obviously a problem for all medical practitioners, but again as noted above it selects against the rural practitioner in an especially acute manner because of the higher percentage of Medicaid patients on his rolls. Updating this profile to more equitable levels would serve as a significant impetus to health care professionals delivering care in rural areas.

Thirdly, while the recent hearings here showed the potential excellent work done through a dynamic nurse-practitioner program, I feel it is wrong to assume that nurse-practitioner programs per se will be the solution to rural health care delivery. One of the interesting problems discussed at at least two workshop ses-

sions at the National Rural Health Conference in Roanoke in 1975, was the fact that it was quite difficult to get physician extenders such as nurse-practitioners or physicians' assistants into rural areas once they had been trained. Programs that have had some years experience with this (notably in North Carolina and Virginia) have found that physician extenders seemed to have the same propensity to settle in urban centers and suburban areas that previous health care professionals have experienced. The Grand Isle Project is certainly a notable exception to this, but on the whole I believe that incentive programs will have to be developed for nurse-practitioners as well as other health care providers to insure that they will be available to the rural areas that are likely to need them most.

Again, on behalf of the State Medical Society, I would like to express appreciation for your interest in rural health care in Vermont and for your participation in the recent Subcommittee hearing here.

STATEMENT OF LINDEN E. WITHERELL, M.P.H., DEPARTMENT OF HEALTH, BURLINGTON, VT.

I attended the Rural Health Hearing held in Burlington on February 16, 1976. Due to the time limitations I was not able to present information which I feel is relevant to rural health. Thus, I am taking this opportunity to write you and present my views so that they may be entered into testimony.

It was interesting that all of the panel discussion participants were people presently involved in the delivery of direct medical care (doctors, nurses, insurance company representatives). Certainly the only views which the Rural Development Subcommittee heard were those from people involved in a system which does not work. If it did work, certainly there would have been no need for the Rural Health Hearing.

All of what I heard at the Rural Health Hearing reminded me of a recent letter by Earl Ubell to the editor in the New York Times which read:

"Like the Holy Roman Empire—which was neither Holy nor Roman nor an Empire—the so-called Health Care System in this country is neither Health nor Care nor a System. Today, 95 percent of the medical effort in the United States goes to disease, not to Health; deals with cures, not with Care; and is not a System, but a haphazard conglomeration of medical entrepreneurs—doctors, pharmaceutical manufacturers, hospitals, insurance companies. And the national 'health plans' being debated in Congress will, I fear, again be disease-treatment plans, designed to guarantee payment to the treaters.

If we do have a Health Care System that is effective in reducing both mortality and disease rates, far less money will be needed than is now being talked about, because emphasis will be on *preventive measures* and not on still more medicine, doctors and hospitals."

This is a lesson which has already been learned by the U.S. Public Health Service—Indian Health Service. Shortly after the U.S.P.H.S.-Indian Health Service came into being in the 1950's, it was recognized that the health care facilities were being swamped. It was realized that most patients were suffering from diseases which could be prevented by improving basic sanitation in the home and community environment. From a cost benefit aspect it was far more beneficial to make basic sanitation improvements and prevent disease rather than spending funds for primary health care.

Studies were conducted which documented the relation between substandard sanitation facilities in rural areas and the incidence of disease. This resulted in the enactment of Public Law 86–121 which provided for the construction of home and community sanitation facilities on Indian reservations to improve health. Public health engineers in the U.S. Public Health Service were assigned to Indian reservations to design and build sanitation facilities. (I was involved in this program for six years and am aware of the improvements which resulted.)

The poor environmental health conditions found on Indian reservations prior to Public Law 86–121 are typical of the many problems facing rural areas. In rural areas many homes do not have safe, adequate water supply or waste disposal facilities and these deficiencies result in disease. To improve health in rural areas I urge that consideration be given to the assignment of public health engineers under the National Health Service Corps to rural areas to provide technical assistance to people to improve the sanitary condition of their water

supplies and waste disposal facilities. Further, I feel it would be beneficial to undertake a study of the need for a national program to provide funds for environmental sanitation improvements to individual rural homes and small communities in an effort to raise the level of public health. Such a study should take into account the cost of such a program versus the benefits derived as a result of decreased incidence of disease and decreased need for primary health care.

Thank you for your interest in this matter, and if you have any questions, please feel free to contact me.

STATEMENT OF BARBARA HOCKERT, PROJECT DIRECTOR, PROJECT MOBILITY: FREEDOM WHEELS, BURLINGTON, VT.

This testimony is presented by Project Mobility: Freedom Wheels, Inc. Project Mobility: Freedom Wheels, Inc. has as its Statement of Purpose the following: THE PLANNING OF ALL BUILDINGS, TRANSPORTATION SYSTEMS, AND COMMUNICATION SYSTEMS, WHETHER PUBLIC OR PRIVATE, MUST MAKE PROVISION FOR THE NEEDS OF INDIVIDUALS WITH HANDICAPS, WHETHER PERMANENT OR TEMPORARY, OR MANY PERSONS WILL CONTINUE TO BE EXCLUDED AND WILL HAVE LITTLE OR NO OPPORTUNITY TO THEIR BASIC RIGHT TO FULL PARTICIPATION AND LIFE IN SOCIETY. WITH THIS BASIC PHILOSOPHY, PROJECT MOBILITY: FREEDOM WHEELS WILL DEVELOP A TRANSPORTATION AND ESCORT SERVICE AND WILL PURSUE OTHER PROJECTS AS APPROPRIATE.

There may well be a need to provide initial diagnosis within the setting of the community in which a person resides. Once this has been accomplished, however, a more specialized, indepth diagnosis may be needed. This more specialized diagnosis is perhaps best accomplished where physicians of different disciplines consulting together, and utilizing sophisticated (sometimes one of a kind) diagnostic tools or machinery, are located.

In Chittenden County transportation to facilities as described above is often times unavailable. Public transportation is currently available only in Burlington, South Burlington, Essex and Winooski (Chittenden County Transportation Authority); and to and from Shelburne and Williston (Vermont Transit). These vehicles are *not* barrier free and are therefore inaccessible to many of our aged and handicapped citizens. Once a destination is arrived at by public carrier, there is additional space between the vehicle and the facility to be negotiated. And often the facility itself has external barriers to be surmounted before a person can utilize the internal facilities thereof.

Project Mobility: Freedom Wheels will operate a 30' FMC Elderly and Handicapped Transporter designed with a hydraulic lift (see Attachment), on a seven day and evening schedule serving in daily and weekly rotation each area of Chittenden County. Project Mobility: Freedom Wheels will also operate an escort service employing part-time seventy (70 young people, fifteen (15) to seventeen (17) years who would be trained to assist those individuals who, with appropriate assistance, could utilize existing public and private transportation, and those individuals because of handicaps and/or age are now unable to fully utilize public and business facilities (including medical facilities) with architectural barriers such as stairways and heavy doors.

Additionally, isolation can aggravate many physical and mental illnesses. One of the results we hope for is that the increased mobility this program will afford its participants will mitigate some of the effects of isolation imposed by age and/or handicaps.

In summation: Any future directions of rural health care must include transportation and communication systems, and these are components that should now be included in any quality system.

THE MEANING OF ARCHITECTURAL AND TRANSPORTATION BARRIERS

(By E. C. Schneider, P.E., Director of Office of Architectural Barrier Control at the University of Vermont and Chairman, Vermont Governor's Committee on Employment of the Handicapped)

Architectural barriers defined

Architectural barriers are those features in buildings and in the spaces between them which limit their accessibility to, and use by, the handicapped.

Architectural barriers make buildings more hazardous, less convenient and their use more time- and energy-consuming for those without handicaps.

Handicaps defined

Handicaps are not all visible: They range from weak hearts, arthritis, old age, deafness and blindness to those which are more obvious, such as those resulting in the use of braces, crutches and wheelchairs. As well as permanent disabilities, there are temporary handicaps such as broken limbs.

Economic and social impact of architectural barriers

Architectural barriers prevent disabled people from taking their rightful places in society and this is an economic and cultural drain on society as well as being psychologically undesirable for those affected by architectural barriers. Architectural barriers prevent people, to a greater or lesser degee, from:

1. Getting an education
2. Obtaining employment
3. Voting
4. Using municipal, state, and Federal buildings, including Post Offices
5. Going to concerts, lectures, museums, some restaurants and other public places
6. Conducting their personal business—paying bills, shopping, visiting doctors, dentists and lawyers; going to Court; and even getting into hospitals and using internal facilities thereof
7. Living in public housing units, including housing for the elderly
8. Using public transportation facilities
9. Using public recreational facilities, including those in state and national parks.

Remedies to architectural barriers

1. Steps—each building should have at least one grade level entrance, served by a ramp if necessary. Once inside the building, rest room facilities and elevator (if building is multi-story) should be accessible without negotiating internal steps
2. Rest rooms—wide enough doors to rooms and booths; layout to permit passage of wheelchair
3. Elevators—doors wide enough and operating buttons low enough
4. Drinking fountains—low enough
5. Telephones—accessible in height and door opening width
6. Door widths—in general should be minimum of 32'' clear opening
7. Parking—should be near grade level entrance to building and wide enough to permit full opening of car door—12' wide
8. Curbs—should be broken and ramped
9. Transportation—vehicles and terminal facilities to be accessible
10. Hotels, motels, homes—should provide for possibility of handicapped persons' use including visiting.

Handicapped persons don't want help; they are capable of accomplishment if we don't build more barriers, and if we remove the barriers we have built in the past.

BURLINGTON, VT., *January 20, 1976.*

Mr. PAUL BRUHN,
Administrative Assistant,
Senator PATRICK LEAHY,
U.S. Senate,
Washington, D.C.

DEAR PAUL: Enclosed is a copy of our letter of intent to Governor Salmon, to make application for U.M.T.A. funding.

An additional feature of our escort service is that the training and employment program will be for young people identified as potential dropouts from high school. The program, as designed, will provide part-time employment and employment experience, coupled with attitudinal and prevocational counseling and education, with the purpose of keeping participating young people in school until they acquire the requisites for employability.

We will forward a copy of our formal application as soon as we receive and prepare same.

Thank you for your interest.

Sincerely yours,

BARBARA HOCKERT.

Enclosed, too, with this letter, is a brief outline of our testimony regarding delivery of health care to rural areas.

BURLINGTON, VT., *January 19, 1976.*

Hon. THOMAS SALMON,
Governor of Vermont,
Montpelier, Vt.

DEAR GOVERNOR SALMON: This is to advise you of the intent of Project Mobility: Freedom Wheels to apply for approximately $70,000 for a 30' FMC Elderly and Handicapped Transporter under Sec. 16B(2) of the Urban Mass Transit Act of 1974, as amended. This specially designed vehicle to transport elderly and handicapped persons would operate on a seven day and evening schedule serving in daily and weekly rotation each area of Chittenden County.

The second component of our project is an escort service employing part-time seventy (70) young people, fifteen (15) to seventeen (17) years, who would be trained to assist those individuals who, with appropriate assistance, could utilize existing public and private transportation, and those individuals who because of handicaps and/or age are now unable to fully utilize public and business facilities with architectural barriers such as stairways and heavy doors. According to statistics supplied to us by the Chittenden County Regional Planning Commission, there are 485 people in nursing homes; 5,485 handicapped persons; and 13,339 persons over the age of sixty (60) in Chittenden County.

We believe that Project Mobility: Freedom Wheels will have a significant impact on the problems of lack of mobility and limited access, and the isolation that is a result of these factors.

We respectfully request your support for this project.

Yours very truly,

BARBARA HOCKERT.

NOVEMBER 19, 1975.

FEDERAL FUNDS ARE SOUGHT FOR FREEDOM WHEELS PLAN

Federal funds are being sought for a proposed countywide transportation and escort service for the elderly and handicapped.

The announcement was made Tuesday by the three promoters of Project Freedom Wheels which is planned to begin next July. They are Barbara Hockert, who is active in various civic organizations, Free Press editorial writer Leo O'Connor and Roy Leonardi, member of Vermont Teacher Corps.

The proposal would provide:

— "Dial-A-Bus" through which an aged or handicapped person may call the public transportation system.

—30-foot bus equipped with hydraulic lift for the severely handicapped.

— An escort service of teenagers, aged 15-17, who would assist the aged and handicapped off and on buses and into public facilities.

For instance, a man confined to a wheelchair in Williston would be able to call for the special bus and a teenager would assist the man during the ride and possibly during his shopping trip.

Mrs. Hockert said the program would bring the aged together with young people who would gain part-time employment and the educational value of cooperating with the aged and handicapped.

According to figures from the Chittenden County Regional Planning office, in the county there are 485 persons in nursing homes, 5,485 handicapped persons and 13,339 persons over the age of 60.

Ms. Hockert said an application for $40,000 from the federal—the Urban Mass Transit Administration to purchase the specially-equipped bus will be sent in two weeks. She hopes to raise $10,000 in community donations to match the federal money.

Enough teenagers will participate in the program to equal 35 full-time jobs, she said.

O'Connor said about $200,000 will cover administrative costs, operational expenses and escorts' salaries. He said some of the funding avenues being explored are in the federal departments of Manpower, Health, Education, and Welfare and Labor.

Background Information on the Problem Oriented Medical Record

INTRODUCTION

Recent growth in numbers of medical malpractice cases is a clear sign that Americans have lost their earlier blind faith in the doctor as infallable healer.

Medical science has become so detailed, so complex, so infinitely divided into specialties and sub-specialties, that the patient and all the medical people helping him need a clear guide, like a map, through which all can follow the maze of interacting illnesses and treatments.

The days when each doctor could keep his own patient notes in his own style, combined with reliance on his memory and knowledge of the patient, are over.

A clear medical record which each member of the medical team can examine, on which each can write his own treatments, results, and plans, is essential.

Dr. Lawrence Weed of the University of Vermont Medical College has created such a record, the Problem Oriented Medical Record, now in use by many doctors and in a number of hospitals.

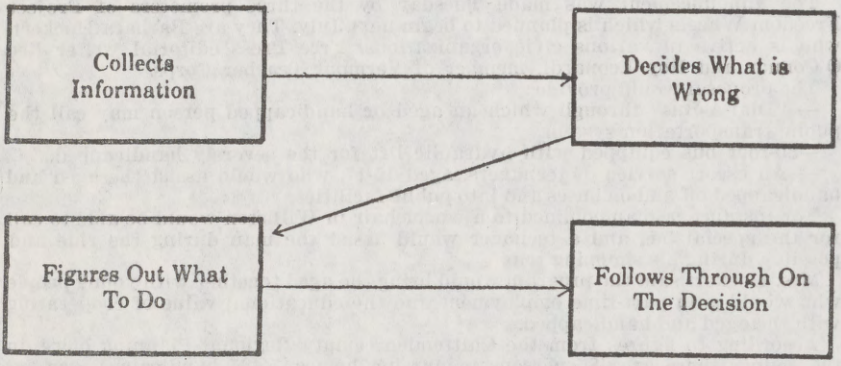
What follows is an introduction to the POMR in the form of excerpts from Dr. Weed's book "Your Health Care and How to Manage It," published by the Essex Publishing Co. Essex Jct., Vt. 05452

The chapter on the use of non-physician Manpower may be of special interest to rural communities which often have difficult finding a resident doctor. It describes how para-medical people—nurses, technicians, and trained assistants—can provide health care with the assurance that when a physician is needed the record and the essential questions it poses will alert them to that need.

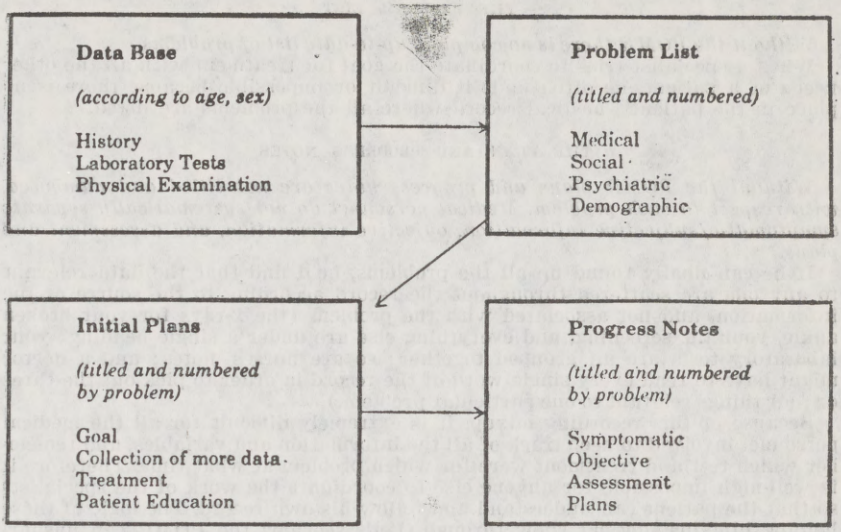
A Physician's Answer

(By Lawrence L. Weed, University of Vermont Medical College)

The new record keeping system must be understood by and used by you. It has four parts. What are the four? As you know from your own experience, the physician collects information, decides what is wrong, figures out what to do about it, then follows through on his decision to see how it worked.



From this we build the four major headings of the Problem Oriented Medical Record (POMR) : the information initially collected is the Data Base, and consists of the patient's history, a physical examination, certain laboratory tests and x-rays. When the doctor decides what is wrong, he creates The Problem List. When he decides what to do about it—to develop a goal and a plan of action for management of the problems—he has reached The Plan. Finally comes his careful watching of results: The Progress Notes. It is called Problem-Oriented because each Plan and Progress Note is identified (titled and numbered) with respect to a problem.



As you know yourself, the doctor has to observe the results of each treatment he tries to see how it is working, and study the new information he obtains from the patient's reactions. He changes the plans as needed, and continues the process of evaluation and adjustment until the best possible outcome is reached. Thus, each progress note has four parts: Symptomatic (S): the patient's reactions. Objectives (O): physical findings, laboratory data, x-rays, etc. Assessment (A): any new interpretation by medical personnel. Plan (P): the new plan for the problem. SOAP.

Some physicians may say that they can do the above process in their heads, particularly for a single curable problem for a short time; but that is not what most of medicine is all about. It is many problems over years, and without the POMR doctors and nurses and patients get lost. Care properly provided can rapidly become complex. Patients' problems interact with each other, medications and treatments interact, and constant check-points are needed to assure that no data are forgotten, no problems slighted, no reactions left in limbo because no one set or can remember the goal, and the detailed plan for reaching it, and the danger signals that should stop the treatment.

Prior to the POMR, each doctor was taught to travel the information-problem-treatment path in a very unsatisfactory way. First of all, no one insisted upon a single record for all to use and the patient to see. Each hospital and each specialist kept his own record and according to his own system, as if he were the only doctor from birth to death without help from anyone, with no vacations or time off, and with a perfect memory for all the medical information for each problem. Secondly, let us review how some deal with each of the four parts of medical action when they do not use the POMR.

THE DATA BASE

Without the POMR the data base is not always explicitly defined.

Doctors collected whatever data on a patient they happened to think might be helpful in connection with the patient's medical background and his current complaint; there was no assurance that the data necessary to uncover all problems would be obtained. And as we noted in the first chapter, a specialist might deal with the one problem within his expertise without even considering that what he did could affect other problems the patient might have. (As one doctor put it, "if a uterus could walk in here all by itself, the specialist's method would work fine; but so long as it's connected to the most complicated organic system in nature, you dare not forget that whatever you do to it will affect all the rest of the body—and the mind—of the human being it belongs to.")

THE PROBLEM LIST

Without the POMR there is no complete up-to-date list of problems.

When a specialist tries to coordinate the goal for treatment with all the other needs of a patient, he often finds it difficult or impossible because there is no place in the patient's medical record where all the problems are listed.

THE PLAN AND PROGRESS NOTES

Without the POMR plans and progress notes are not titled and numbered with respect to each problem. Medical personnel do not systematically separate symptomatic/subjective information, objective information, and assessment and plans.

If he can finally round up all the problems, he'll find that the data relevant to any one are scattered throughout the record according to the source of the information, and not associated with the problem (the x-rays for your broken ankle, your t.b. screening, and everything else are under a single heading; your laboratory tests are all grouped together; so are nurses' notes; and a doctor might have to read every single word of the record in order to pick out the three or four things relevant to one particular problem.)

Because of this recording mixup, it is extremely difficult for all the medical personnel involved to keep track of all the information and variables, and remember which test and treatment were for which problem at what time. Therefore it is well-nigh impossible for anyone else to coordinate the work of the specialists so that the patient can understand and follow his own record. The logic of those helping him just doesn't show through. Let's see how the POMR can unsnarl this dangerous tangle.

Should the Patient Have a Copy of His Own Record?

There are those who fear the patient will panic if he owns and understands his own health record. But what of the confusion, bad medicine and suffering that result directly from the present practice of keeping source-oriented records unavailable to patients and families just when they need them most. When data are in disorder and are scattered over several hospitals and doctors' office, the patient is forced to imagine the total picture in the minds of many doctors. The damage and confusion from imaginations run wild may be far greater than could possibly occur from letting patients keep in their own possession complete problem oriented medical records which contain the total of their social, medical and psychiatric problems with progress notes on each.

It may be the most effective weapon we have against over-utilization of medical care, with its dangers to society—mentally, physically, and economically. As patients learn to look at their records individually, fully recognizing their own uniqueness, they must at the same time be prepared to look at the facts on populations of patients as computerized problem oriented records will reveal them. Patients must profit from the experiences of one another in regard to the drugs and procedures, and not have everyone have a Thalidomide or German measles baby to learn. Only through good records and good communication can general knowledge be made to work for them in unique and profitable ways.

When findings in the record are neither definitely abnormal nor definitely normal, but borderline, and when the tentative thoughts of a physician are yet to be confirmed or denied, it is true that the patient may have unnecessary moments of confusion and anxiety. If the doctor tries to avoid this by rushing to give his patient a "yes" or "no" answer with sudden, expensive and even dangerous studies, things are even worse.

There are those who say that patients cannot be taught to think of medicine in this way, that they want the doctor to be the all-knowing father in a kind of parent-child relationship, and don't want to take part in an adult-adult team concept. There is no evidence that this is true, however. Indeed, there is increasing evidence that many patients resent being kept in the dark about their own health by the complicated medical language, the doctors' and nurses' reluctance to explain, and so on.

From kindergarten days, children can be taught in simple ways to think of their medical record as important to them, and learn how to work with it. When heights and weights are being recorded in hygiene class, they can also learn to report on immunizations they just had, or the bout with measles they

went through last summer. By the time these children are grown, they will be accumstomed to their role as the central link in the health-care chain; the importance of their medical record will be as plain to them as the importance of their school or financial record; and no longer will we wait until somebody is sick before we start telling them about the complexity of health care and how much responsibility they must suddenly assume.

In the future, there will be many new techniques to obtain and update a defined, thorough POMR on an individual. Availability of this information and its efficient transferral to the right people at the right time will require computers, and modern electronic means of communication (see chapters on computers,) but at present the situation may well recognize that you keep a copy of your own record. When new procedures do develop, computers or others, the public should not resist change, but should ask, "Will this mean more enlightened care for more people at equal or lower cost?" If the answer is yes, they should give new approaches full support and not sigh nostalgically for a system which may have been satisfying to one particular family, but which is maintained at the expense and health of thousands of others who receive no care at all.

POMR and Audit

This is the clue to proper audit. While it is clear that memory is part of the doctor's training—or anyone's—because the mind retains those things it uses and needs frequently; memory should not be the *basis* of the system or the audit. Any system that must rely on human memory to work is going to have frequent failures.

The system, and the audit, must be based instead on logic. It won't matter whether the student got the correct information out of his head or out of a book; it will matter whether he got it at all and used it sensibly.

The auditor examines the doctor's performance on the basis of his thoroughness (did he omit some of the questions in the data base? are there some problems without plans?); his reliability (has he made inaccurate observations? has he failed to search the literature at all for this special problem?); his efficiency (did it take him five weeks to perform a task when it could have been done in two?); and his analytic sense (when progress notes highlighted unforeseen difficulties, was he able to readjust plans quickly and logically, or was he blind to some of the possibilities?).

With POMR, there are guidelines for audit, there are rules for applying medical knowledge, and there is space for the physician to maneuver so that he can adapt treatments to the complexities of any given case.

You will remember that the first requirement is to set a goal for the patient, and then one for each problem. Both physician and auditor must know the goals. Second, reasonable plans to reach the goal must be made, using references from the medical literature (not older than 5 years) to support the plan if the auditor questions it.

The auditor of course needs reference points from his own experience and recorded past medical experience by which to judge another's performance. Those are not hard to find with respect to thoroughness, reliability and efficiency. The analytic sense is more difficult to judge, especially when multiple problems must be considered in context with each other. The guideline must be that the physician has a reasonable goal for the patient and can defend his plan to achieve it with references from recent standard medical writings. There are many ways to achieve a given goal just as there are many ways to get from Seattle to Cleveland. Going by way of Mexico City may not be efficient, though you still get there, but even among efficient ways there are an infinite number of paths which differ in their details. All the auditor must worry about is that the goal is clear, then he can examine the record and make reasonable deciisons about the path chosen. If the path used seems to him to vary widely from the possibilities suggested by medical literature, the auditor must ask the doctor to defend his plan. If he has done well, he can define the path he has chosen in the context of that particular patient. This will emphasize the doctor as a thoughtful person using tools and information to take care of a unique individual in creative ways. For common problems seen in office practice, step by step procedures (algorithms) have been developed so that reliable non-MD workers can do much to provide medical care in areas where MD's are short and funds are limited. Any devia-

tion from the algorithm required by the unique situation and desires of a given patient may be done in consultation with the patient and the physician. It is not possible for the dotcor to have enough algorithms applicable to every age, sex, and condition on paper. He would get lost in trying to use them. It is at this point that the computer can be so helpful. It can provide all the advantages of step by step procedures and yet in a framework that allows us to treat each patient as an individual. The details of how this might work are discussed in the chapter on the computer (see also chapters 27, 28, 29, 30 in Hurst and Walker (eds.) "The Problem Oriented System", Medicom Press, 1972).

POMR, AUDIT, AND EDUCATION

Understanding of the POMR and audit process makes it plain that these turn all medical practice into medical education. The physician learns from every case, as he can trace his work clearly and infallibly from point to point on every problem and every patient. The auditor learns from the physicians, also, as he examines the multitude of ways in which this medical chess game can be played so as to give the best possible care to each unique patient.

That means POMR can be the basis for education of the medical student, as well as for the continuing education of every doctor.

The type of examination a student faces determines the kinds of behaviors he will develop. If he is to be examined on what he can memorize from books, he'll spend hours learning lists, procedures, dangers, names, etc.

If he is to be examined on what he can do, he will spend more time learning how to talk with patients, how to listen to their hearts, how to look at eyes or ears, how to feel a joint for abnormalities, and so on. His work with patients will not be a sort of secondary field-practice to supplement his years of work in the library, classroom and laboratory; rather, his reading and study will spring naturally from his need for understanding of what he is doing.

The Use of Nonphysician Manpower

The previous chapters have dealt with a system of care and they emphasize the roles of the patient and the physician. We all realize, however, that the great percentage of the total productive hours in medicine may not come from physicians at all. They come from registered nurses, practical nurses, pharmacists, visiting nurses, physiotherapists, social workers, technicians of all types, and administrators. Furthermore, the roles and capabilities of all these workers are expanding rapidly. All their effort on behalf of the patient can be good if there is no duplication and the right hand knows what the left is doing—in other words if there is good communication among them. That can only be true if there is a single record available at all times to all workers that reveals not only what was done and what was planned, but why it was done and why it was planned. There should not be separate nurse's notes that get thrown out on discharge, or separate notes on separate sheets from separate departments in a hospital or doctor's office. The problem oriented record should be that single record and everyone should contribute notes logically under the appropriate problem.

For some problems the most effective note will be by the nurse, others by a specialist, others by a social worker at a critical moment. It should be the obligation of each worker to contribute his specialized expertise in the context of the patient's total care; it should not be left to the bewildered patient to move among health workers, sorting and synthesizing on his own the fragments of health care that experts deliver.

In the next few years, as we become more skilled at defining the correct data base, formulating problems precisely, and writing explicit goals and plans, many, who now feel helpless to aid the physician, will know precisely what to do and how to proceed. The POMR can be the principal communication tool and/or guidance system; and the computerized POMR, which is non-memory dependent, can provide guidance for all medical personnel. These new tools will extend greatly the capabilities of people who have not had extensive training.

In the next few years techniques will be developed to elicit a large amount of historical, physical and laboratory information on patients, who will more and more be asked to cooperate to their fullest capacity. The goal is to get the information at minimal cost to the patient at no decrease in quality.

The amount of training needed to do each medical task reliably should be determined, and persons who have taken the training and proven their reliability

and thoroughness should have those tasks turned over to them; it doesn't matter how many degrees they've earned, but whether they do the job properly with the patient.

PARA-MEDIC USE

One of the biggest mistakes the public makes, particularly in the areas where immediate medical help is not available, is to clamor for a doctor. Mistakenly, they think he can solve all their town's health problems either by himself, or by sending patients to the right specialist at the right time. He can't. No one doctor can handle such responsibility for a whole town. What the public should hunt for is a good standard of health care and ways of following it; they may find they can do it very reliably with other health trained townspeople who keep in touch with "long distance" doctors.

Some centers have been using computers to help get the data base on patients. This allows even more efficient use of para-medical people, even non-medical people. Experience with interviewers and computers suggests that it is not necessary to take physician time to ask every question, and that quality can actually be *improved* by using trained people (students, housewives, doctors' helpers) who don't have an office full of patients waiting, or a phone that is never still, and therefore can take all the time necessary to do a thorough job. Of course there is nothing new in the fact that chemists and technicians in laboratories get very significant data on patients without requiring the daily help of a licensed physician.

When you see a physician whose training costs thousands of dollars and years of time and demand that he draw every blood, do every physical examination, take every x-ray and clean every tooth, you're wasting his time, your money, and everybody else's time and money too. While he's giving you these simple services, patients in serious need can't be seen; and as the demand for service outstrips the supply of doctors, the cost of medical service shoots up.

When you have a POMR, you will also know what you are buying for your money. Where there is no common system and thousands of specialists, you are bound to spend more, because there is no guidance system to assure steady progress toward the goal, and no way anyone can check on the physician's performance because there is no record that accurately reflects his reasoning. Patients should have a copy of the questions and tests which yield the data base, so they know just what it is; they should ask to have their problems listed, and plans and notes marked to match them so they can follow the treatments. This way, you save more time, worry and money, because you will do everything you can to prevent problems, understand and follow orders.

You as a patient can encourage your schools to improve health education, so that each individual will be well trained to assume responsibility for his or her own health care, and to use more and more tools that do not require the direct involvement of a physician. Your safety in your automobile is partly determined by laws, the quality of the car, and the state of the highways. But in very large measure it is determined by how well you understand your role as a motorist responsible for your own and others' safety.

The patient must learn to think of himself as the most important and the most responsible of all the para-medical workers. And the individual who learns to apply the simple principles implicit in well-defined goals and the "four boxes," getting a data base, formulating a problem list, developing a plan for each, and above all keeping organized, titled, numbered progress notes on each problem, will quickly perceive that he has gained a tool that goes well beyond his own health care. Whether he is a business man, a manual worker, a union leader, a university president, or a teacher of children, he will begin to wonder why the library, his own files, and his own thoughts are so often filed in terms of names of people or names of journals and places (all sources of information) instead of in terms of problems. He will ask himself more and more often in any endeavor, whether he has stated his goals, has systematically agreed upon a well-defined data base before he starts jumping to conclusions, has seen all the problems in context, has given enough thought to careful plans for each, and above all has the insight to be a guidance system and to always follow through and readjust his course when necessary. It is not easy to be steadfast about worthwhile goals, or disciplined but flexible about ways to reach them. It is easy to live from crisis to crisis, never setting achievable goals, becoming stubborn and inflexible about taking off blinders and readjusting our vision. We can learn the principles of problem solving by applying them to the care of our minds and bodies, and then

extend them to the other things we do. Reality is the ultimate test of an idea. If good mental and physical health always have the highest priority and we are organized enough to achieve them with maximal efficiency, then all other things may seem possible and far more worthwhile.

The Implications of the Problem-Oriented System for Medical Education

The *problem-oriented medical record* was not designed first and then followed by the question, "How can it help in patient care and how can it help in medical education?" Rather the initial question was. "What tools do we need to perceive and act upon patents' problems in a context meaningful to the individual patient?" This led to the question, "Cannot medical education simply be the process of learning to use these tools?"

The principal tool that emerged from the above approach was the problem-oriented medical record. It provides a natural way to integrate basic principles of medical science with the daily activities of medical practice. Furthermore, it forces a mode of synthesis and integration that preserves the logic pathways of physician and student, making medical action subject to fair and logical audit. The problem-oriented record provides a basis for an educational system built on corrective feedback loops and not arbitrary memorization of medical facts dispensed by the faculty.

Medical education should not be principles for two years and then practice for two years, nor should it be practice for two years and then principles. The students can learn principles one year and they can learn practical procedures the next year. It is the successful merging of the two that escapes many students. The problem-oriented record, through the highlighting of logic pathways, allows real medical problems to promote the natural integration of principles and practice.

Traditional medical education is based on certain premises which actively interfere with the effective utilizaiton of the problem-oriented record as a basic tool. Until these premises are called into question and replaced by new ones, experimentation in medical education may prove fruitless and exorbitantly expensive in time and money.

Old Premises Upon Which Medical Education Is Based; New Premises Upon Which Medical Education Should Be Based

Memory

Old premise

The student's memory and store of medical knowledge are the most important qualities to develop. (Our present examination and Boards systems prove this to be a basic premise whether we admit it or not.) It was believed that the memory could be developed in a useful way by giving students facts to memorize and examinations to test the memory, and then trusting that the information would be available at some future date when needed.

New premise

The student's capacity to define problems and find and utilize knowledge effectively are the most important qualities to develop. We must focus on the student's capacity to be an honest, effective guidance system, progressing logically from one step to the next in the pursuit of a problem. We should concentrate on developing the qualities of thoroughness, reliability, sound analytical sense, and efficiency. The tyrannic role of memory must be broken. Memory for long-term usage cannot be based on examinations, on interest, or on IQ. It can only be based upon usage. Use a thing over and over again and you will remember it. Memorize it and then never use it for an extended period of time, and frequently you will not remember it in a reliable fashion. Memorization should never be a goal or a prerequisite to effective action.

Unless one gives up the old premise and accepts a new one, he may fall into a series of traps. The first trap is the notion of a core of knowledge. The core of knowledge, even in one little field, is infinite; instilling the core could go on forever. The size of the core of knowledge in a field depends upon whom you ask, how much training he has had, and the development of his own philosophy and discriminatory sense. We give a student a quiz on the core of knowledge when he is on a given service, hold our breath if he got it right, and send him on to another service. Five months later he is on a new service and doesn't remember reliably the previous core. This would be all right if he looked things up when necessary,

but he applies what he vaguely remembers, or merely works in a new, specialized area, neglecting completely all the problems that memory cannot serve from the previous core.

What a delusion it is for the faculty to think the average student is going to use ketoglutarate metabolism five years later in the careful analysis of a patient's problem. The basic science faculty says, "Isn't it of any value?" This is the wrong question. By the scholar's definition, everything has some value. The important question is, "What price did the student pay to only half understand for a very limited time?" If the price was the bad habit of superficial thinking or the naive notion that knowing words is equivalent to understanding science, then the price may have been far too high. It is a corruption of the concept of basic science itself to apply the term to what medical students are exposed to in most medical schools in the first two years. What the professor gave to his graduate students in biochemistry or physiology approaches basic science, but what he gave the medical students to memorize is something else.

There is basic science, in terms of the true behavior of the scientist, in studying a student's work-up of a patient to see if his problems are well-formulated, his plans well-conceived, and his *Progress Notes* sound in terms of thoroughness and analysis of the right parameters being followed, coupled with scientific judgments as the case progressed. Do not worry if he remembered facts or had to look them up. Worry only if he does wrong things with no sense of reliability or understanding. Memory is usage; it is not IQ, not interest; it is nothing but usage. The reason a particular faculty man knows all about cardiograms is because for 25 years he hasn't looked at anything else. If you don't believe that, then give that faculty member a test on bone marrow interpretation—something he had 25 years ago—and watch how he does. He will do worse than the second-year students if he tries to perform from memory alone. You cannot give to somebody else in an hour what took you 25 years to get. But you can give the means for growing so that in 25 years the student will do what the teacher can do, and a great deal more. By taking memory out and putting real problems in, you develop the student's analytic sense; and that, coupled with observation and follow-up of nature's results, immunizes the student against the misconceptions and generalizations of those who teach him. The only protection a student gets against the misconceptions of the faculty is reality, and you must create teaching situations where students always deal with the real problem. whose solution depends upon the student's ingenuity and drive and not on his memory. We must teach a core of behavior, not a core of knowledge.

Every hour of the student's days should be scrutinized in terms of these premises on memory. If he is spending large amounts of time on rounds, and in conferences, and in lectures in which he gathers half-understood facts out of context, on patients he did not know and will never see again, then the new premise on memory is being violated. For many of these rounds and conferences goals are not defined, results are never measured in terms of students' intellectual discipline. We can only assume that bad habits are generated and time is subtracted from well-defined goals and modes of behavior that could have been applied to the pursuit of well-defined problems and problem-oriented *Progress Notes* on the students' own patients. But in many curricula students have no time to perform and teachers no time to audit performance, as students complain about a faculty that never looks critically at what students do because the faculty is so busy telling them all they, the faculty, know. Only in medicine do the coaches spend such an inordinate amount of time playing in the demonstration mode while the players sit on the bench and watch. In medicine, the students may not even be sure of the real game, as they regurgitate facts and do isolated maneuvers on specialized fragments of the whole.

BASIC RESOURCES

Old premise

Our most important resource is basic research in modern molecular biology and all the faculty and expenses that surround it. Basic scientists should be allowed to have an overwhelming influence on the first two years of medical school without any series of feedback loops on their efforts in terms of the student's ultimate performance.

New premise

Our most important resource is the student's capacity to learn and think on his own and to learn from real data. When this is developed, an individual will contribute to the profession the rest of his life. The patient can provide

the data, students the energy, and faculty the discipline and audit. Research should go on in the name of future care, but not in the name of present education, if the PhDs involved seek no feedback loop on the actions and behavior of the future MDs they educate.

Basic science education needs real problems to control it and bring it to life for the medical students. A graduate student in the basic sciences has real problems to provide feedback to him; that is why the basic science faculty gravitates to the basic science student as its "real student." The medical student is a burden to it. The problem-oriented record becomes a vehicle to couple basic scientists and medical students in a real and meaningful relationship. The basic scientist is infinitely more powerful than he realizes concerning activities on a medical ward and the reporting of them in the medical record. Do not drag the basic scientist to a conference and give him the last fifteen minutes to speak about protein metabolism. Rather, say to him: Look at our records and tell us where we violated the simplest principles of immunology, or bacteriology, or biochemistry as we pursued a problem. He can very rapidly learn the structure of the problem-oriented record so that he is immediately in contact with our facts and logic. If you have a basic scientist faculty member who cannot do that and who is not challenged by such a request, then he probably is a dispenser of facts and incapable of teaching a core of behavior. Let basic scientists do their research and thereby contribute to basic medical knowledge, but let their exposure to medical students be in the form of a detailed analysis of their use or lack of use of basic principles in physiology, biochemistry, and anatomy as they define and follow real problems. In modern medicine, with transplants, coronary care units, respiratory problems, metabolic units, there is an infinite number of opportunities for basic scientists to behave as described above. Not only would it perform a far more meaningful type of teaching, but it would also provide a much-needed audit of medical practice, as older practitioners stray further and further from sound scientific principles as they do their work in a hurried and often disorganized manner.

GOALS

Old premise

Teachers must organize and set goals for graduate students in medicine in terms of subjects to cover, articles to read, years to spend, subjects to do research upon.

New premise

The student must set his own goals within an organized system of medical care and organize specific approaches to those goals, and he must seek criticism from teachers as he does it. The teacher must provide general rules of scientific behavior, continuous audit of performance, rigorous discipline, and an environment in which the student sees disciplined practice of medicine on every ward and in every clinic every day. The educator who says he cannot relate to *his* medical center well enough to assure an environment of disciplined medical practice has no credibility in the real world. Without discipline and leadership all else may be in vain and students can be taught only by example.

AUDIT

Old premise

Teachers set goals, give examinations, and do the audit. An equal amount of time does not need to be spent having students do the audit.

New premise

Students should be taught to audit performance using well-described criteria and standards. For every case they work up, they should audit a case. For every experiment they do and plan, they should audit an experiment done and planned by someone else. These audits should be written and subject to review. Long periods of doing careful audit and having others accept and discuss them rationally will teach students in turn to accept gracefully and rationally audits of their work for the rest of their lives.

PRACTICE VERSUS PRECEPT

Old premise

Principles and precepts should precede practice.

New premise

Practice in a controlled environment may lead to the revelation of principles.

PREPARATION VERSUS PERFORMANCE OF REAL WORK

Old premise

Preparation should be extensive before the student is allowed to do real work. The older generation can be very helpful to the newer generation by giving them detailed preparation and didactic material before they are confronted with real tasks so that they do not run the risk of failure. Teachers should start with their conclusions and explain how they got them, instead of letting students start with real problems and struggle with the teacher driving them never to give up.

New premise

Useful work divided up into achievable goals for the most inexperienced, with gradually increasing requirements on the performer, is the ideal form of preparation.

THEORY AND REALITY

Old premise

1. Basic science approaches can be taught in isolation of the complex clinical problems to which they are to be later applied. The student can integrate effectively on his own if he is given the pieces from preparations on animals and facts gained from lecture rooms.

2. The goals of the first two years of medical school cannot be coupled with useful tasks in laboratories, libraries, pharmacies, operating rooms, and on wards without impairing long-term practical and theoretical development of the medical student. The theoretical development of students requires expensive facilities and personnel devoted solely to education.

New premise

1. All parts of the four phases of medical action as carried out for patients together provide realistic, rigorous routes to the full-time development of a medical student from the basic science point of view, at least to the extent that it is now being achieved.

2. The first two years of medical school can be coupled with useful tasks in laboratories, libraries, pharmacies, and operating rooms, and the long-term practical and theoretical development of the student requires that it be done.

LEGITIMATE ROLE OF SYNTHESIS IN EDUCATION

Old premise

The facts and discipline of basic science can more effectively come through lectures and organized laboratories with animals and unproductive tasks than in a real medical setting. Laek of comprehensiveness and essentially irrelevant material will be discerned by the students in the absence of authentic challenge in medicine.

New premise

All the facts and discipline that are normally retained by a medical student in the basic sciences can be given to him through the judicious use of screening clinics, laboratories, bacteriology laboratories, coronary care units, electromyographic and electroencephalographic laboratories. A comprehensive view and an appreciation for the limits of many extrapolations to human materials in biological research require that the student's mind be exposed to the real complex situation sufficiently early so that his mind is not forever imprisoned by notions and theories of limited applicability. That many physicians quote what is in the book and deny what is in the patient may be directly attributable to the sequence of events in their medical education.

THE LECTURE SYSTEM

Old premise

Students get something from talking and from lectures that they can't get from reading.

New premise

Students at the medical school level can get anything from reading that they can get from a lecture if the goal is sharply defined, the questions clearly asked, and the audit of what they do rigorously performed.

RISKS AND DAMAGE VERSUS GAINS IN EDUCATION—EVALUATION OF TRADE-OFFS

Old premise

The harm done to the intellectual development and attitudes of a medical student in the first year and a half or two years is sufficiently insignificant so

that it is never seriously delineated in an organized way, such as one delineates the toxicology of a drug separately from the advantages of a drug.

New premise

Significant harm may be done to the highly trained, well-prepared premedical student by forcing him through two years of training that are at a lower intellectual level in terms of comprehension, synthesis, and required behavior than he had known before arrival at medical school.

SPECIAL TRAINING PROGRAMS WITHIN A MEDICAL SCHOOL

Old premise

The ranks of medical school faculties, medical researchers, and so-called clinical scholars are constantly being depleted and need to be supported by special medical scientist training programs of various sorts whereby certain medical students are selected for special attention, intellectual and financial, to become future faculty.

New premise

The qualities that are transmitted through an educational program and that are fundamental to the development of a good teacher or investigator are also fundamental to the development of good practitioners of medicine. These qualities are thoroughness, reliability, sound analytic sense, and efficiency. The many choices that medicine offers should be well-defined and open to all at the medical school level, and natural selection for various tasks should not be modified by special programs. The talents of medical students of the present are grossly underutilized and underexploited because of lack of faculty commitment to all students in the past, as expressed through poorly defined goals, inadequate discipline, and uneven application of defined standards of performance. To avoid the issues for all by developing programs for the few harms medical education and practice and reflects an unwarranted arrogance about the art and science of medical research and teaching, as opposed to practice. The seeds of such elitism, though unintended, can and will lead to exacerbation, not relief, of the problems of the already beleaguered medical schools.

THE ELEMENTS OF THE EDUCATED MAN—THE IDEAL PROPORTIONS FOR THE PHYSICIAN

Old premise

We have a reasonable balance of the cognitive, attitudinal, and manipulative skills being developed in the first two years of medical school as they are now constituted.

New premise

Modern technology, the computer, and the effective use of paramedical personnel can completely revolutionize the distribution of a student's time, eliminating almost all memory efforts and allowing far greater development in the other aspects of his development.

TRAINING TIME

Old premise

There should be a fixed time for medical school and residency training.

New premise

There should be a fixed goal and well-defined standards of care and a variable time for various students to reach that goal, depending upon ability, drive, guidance, and facilities.

POSTGRADUATE EDUCATION

Old premise

The student in medical school must be given the basic facts of medical education; if he is to specialize, he must take special courses; and if he is to continue to keep on, he must return to organized courses and to specialize further.

New premise

Medical school should be used to teach a person to solve new problems of any type. If he is graduated from such a school, he—by definition—does not need organized courses or specialized didactic training, because he has proven his capability of developing on his own once the problem which he is expected to solve is defined. He should seek apprenticeship opportunities to gain skill in new manipulative techniques.

GENERAL PRACTICE VERSUS SPECIALIZATION

Old premise

Physicians and training programs can be divided up into sharp groups of general practitioners and specialists and family physicians.

New premise

The degree to which an individual can take total care of a patient and go into depth on specific problems of a given patient will vary from person to person. Furthermore, it is unlikely that any two individuals will be identical and it is most likely that the spectrum of behavior will be very, very broad—some able to do many things in considerable depth, whereas others have to work hard to do one thing at all well in any depth whatsoever. We should hold quality of achievement and acceptable performance on any task as the constant, and the number of types of tasks within the reach of any given individual should become the variable.

THE POWER OF EDUCATION

Old premise

Education in the old sense of giving facts and testing for their retention is the most useful thing you can do for a young person, and by so doing you give him great power.

New premise

Powers of education are often described. The limitations of education as usually conceived should be remembered. Lectures and didactic education cannot inspire many students nor prepare them for useful work. "To seek that which cannot be provided, especially to do so with a passionate but misinformed conviction that it can be, is to create the conditions of frustration and ruin." No one can ever memorize enough knowledge and techniques to guarantee the best care of every patient that becomes his responsibility. To paraphrase Moynihan, much of the intense difficulty of our time in "medical education" is in nature conceptual and arises from a massive misstatement of problems. Intellectuals, if this view is correct, have done their work badly and there is little prospect that their mistakes will soon be undone. The apprehension strikes with special force that we may have profoundly mistaken the nature of our difficulties, so that we must expect years of effort to resolve the wrong problem and in presumably unavailing ways. A certain nostalgia arises for a future that now appears lost.

A LIBERAL EDUCATION

Old premise

Professional education and adequate professional performance must be preceded by a liberal education of four years in college.

New premise

A professional education in medicine with complete attention to all types of problems for patients—ie, social, psychiatric, as well as medical problems—can provide a liberal education, particularly if appropriate reading material is provided.

ETHICAL VALUES AND DISCIPLINE

Old premise

A physician is too often an uneducated man, technically proficient, but insensitive to the world of values.

New premise

The physician is too often an educated man in the standard sense, aware of a world of values, ideas, and aesthetics, but very undisciplined in the application of those values and aesthetics in the everyday encounter with the average patient in a busy practice.

PHYSICIANS AND PEOPLE

Old premise

We do not have enough physicians interested in patients as people, because they did not have the proper liberal arts and humanities background.

New premise

We do not have enough physicians interested in patients as people, because the goals of a physician in terms of episodic and comprehensive care were never clearly defined and audited, and the physician expressed his confusion and frus-

tration about what he was doing or trying to do by exhibiting a superficial interest in medicine. He is disinterested, and perhaps should be in medicine as practiced.

INTERFACES WITH SOCIETY

Old premise

Physicians who can relate their work to the culture of which it is a part are best produced by giving courses in the humanities and the behavioral sciences.

New premise

Physicians will come to understand the relationship of their work to the culture i nwhich they exist if they are required to define all the patient's social, psychiatric, and medical problems and to follow each to a logical solution, brought about either by themselves or another specialist whose work they have observed. There are no natural boundaries in the practice of medicine between the humanities and science. Indeed, there are no natural boundaries between any scientific practice and the culture. The divisions were made mainly by those people who lectured instead of those who practiced any profession in a rigorous and thoughtful fashion.

EQUALITY FOR STUDENTS

Old premise

There is a present preoccupation with equality of all people and groups to express themselves and to fulfill their personal needs. The medical school and medical societies should plan the highest priority in fairness to students, allowing them to express themselves and fulfill their personal needs.

New premise

In medicine, we should stress that there should be for all patients an equal opportunity to get the right care at the right time, even if it requires a rigorous system in which not everyone has the same opportunity to perform any task he chooses. The freedom of the student or physician to do anything he pleases destroys the freedom of the patient to enjoy at all times a certain standard of excellence. The treatment of the true needs of a patient should never be corrupted by an ill-advised attempt to fulfill irrational and unrealistic emotional, intellectual, and financial needs of the physician generated by an educational system with unrealistic goals and no feedback loop. When fulfillment of the patient's needs leads automatically to fulfillment of the physician's needs, you have no problem. When it is not possible to achieve both simultaneously, the physician's needs should always be sacrificed, or the meaning of an oath in medicine is nonexistent. Looked at from this point of view, the student's disdain for hypocrisy and his sincere desire for equally good care for all patients require much unequal effort and sacrifice on his part—the degree of inequality of time and effort being directly related to his natural talents, his discipline, his ingenuity, and the environment and pressures that surround him.

INFORMATION TECHNIQUES

Old premise

Methods of transmission of information should adapt to the physician's old methods of reading and writing and dictating.

New premise

The ultimate aim should be to have every piece of information converted to an electronic form at the time it is produced—whether it is from the doctor, the nurse, or any other medical personnel. Furthermore, there should be a file structured to accept that information in the right context. In this manner, all information will be available at multiple sites at any distance, at maximal speed, and will be related to all other information for the proper analysis. We can no longer accept the inefficiency that goes with so many conversions of information and the time lost in the transmittal of this information. Furthermore, the very tools the physician uses to record his data and convert to the electronic form should have built into it parameters of guidance and the up-to-date information necessary to make that information as meaningful and as current as possible.

○