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INTERNATIONAL HEALTH PROGRAMS, 1972

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HEARINGS

BEFORE THE

SENATE SUBCOMMITTEE ON INTERNATIONAL HEALTH, EDUCATION, AND LABOR PROGRAMS

OF THE

COMMITTEE ON LABOR AND PUBLIC WELFARE UNITED STATES SENATE

NINETY-SECOND CONGRESS

SECOND SESSION

ON

S. 3023

TO AMEND THE PUBLIC HEALTH SERVICE ACT SO AS TO PERMIT GREATER INVOLVEMENT OF AMERICAN MEDICAL ORGANIZATIONS AND PERSONNEL IN THE FURNISHING OF HEALTH SERVICES AND ASSISTANCE TO THE DEVELOPING NATIONS OF THE WORLD, AND FOR OTHER

PURPOSES

OCT 3 1972
JUNE 6 AND 7, 1972
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INTERNATIONAL HEALTH PROGRAMS, 1972

TUESDAY, JUNE 6, 1972

U.S. SENATE,
SPECIAL SUBCOMMITTEE ON INTERNATIONAL HEALTH,
EDUCATION, AND LABOR PROGRAMS OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:15 a.m. in room 4232, New Senate Office Building, Senator Harold E. Hughes (chairman of the special subcommittee) presiding.

Present: Senator Hughes.

Also present: Senator Javits.

Staff members present: Mary Ellen Miller, professional staff member; Marvin B. Jones, professional staff member; and Jay Cutler, minority counsel.

Senator HUGHES. The Special Subcommittee on International Health, Education, and Labor Programs will come to order. I have a statement which I will read, for the record, and I believe Senator Javits will have one later. I would like to have it incorporated in the record.

I want to welcome you gentlemen, Dr. Bryant and Dr. Taylor, for appearing before the subcommittee. We appreciate your willingness to come and lay out for us your consideration of what you think we ought to be doing.

For the next 2 days, the Special Subcommittee on International Health, Education, and Labor Programs will conduct hearings on the health needs and resources of developing countries.

World health programs have always offered a great potential for improving peaceful relations among nations. Unfortunately, we have not made full use of that potential.

At a time when a shocking percentage of our resources is being used to destroy human life, it is time to explore what can be done internationally to preserve life. We can assist developing nations in their health programs and can gain knowledge from them that will be of advantage to our programs. It is a two-way street and should be so regarded.

We have before us Senator Javits' international health care bill, S. 3023. At a time when there is a growing recognition and concern for the inadequacies of health care, Senator Javits is to be congratulated for his foresight in calling attention to this issue.

The Senator from New York has said that health care is the developing nation's most critical basic need. The health subcommittee, under the able chairmanship of Senator Kennedy, is pointing out that this is a problem of commanding urgency.

What are the needs? What are the resources? What should be the objectives? What programs and organizational structure will be most effective in meeting these objectives?

How can the effectiveness of systems be evaluated? It is my hope that the answers to these questions will provide guidelines for the decisionmakers in their use of funds to serve the sick and disabled people of the developing world.

We will now receive a statement from the senior Senator from New York who is also the ranking minority member of the Committee on Labor and Public Welfare of which this subcommittee is part of.

STATEMENT OF HON. JACOB K. JAVITS, A U.S. SENATOR FROM THE STATE OF NEW YORK

Senator JAVITS. I commend the chairman for his leadership and initiative in commencing hearings to explore what can be done internationally to preserve human life by assisting developing nations in their health problems. The hearings will focus national attention on the urgent need to herald a new diplomacy.

As Dr. Kevin Cahill, the author of the idea in my bill entitled the "International Health Agency Act of 1971" (S. 3023), so aptly put it: "Medicine is our untapped resource."

In deference to the number of distinguished medical and international experts whom the chairman has scheduled as witnesses, I shall confine my opening statement to a reaffirmation of my belief that if our Nation is to be truly great, it will be measured best by acts it performs for the benefit of mankind. It is only fitting that America make a commitment to utilize its tremendous medical might to make the right of good health for all peoples a reality. I would then ask unanimous consent:

First, that the full text of S. 3023, an amended companion measure to H.R. 10024, introduced by Mr. Carey and Mr. Fraser and co-sponsored by more than 20 Members of the House of Representatives be inserted in the record at this point;

Second, that the full text of my remarks when I introduced the bill in the Senate on December 14, 1971, which provides a description of the bill, the basis of support for the legislation, the problems of our Nation's health shortages, the concept of medical diplomacy, the need for self-help programs and the problems of environmental health be inserted in the record; and

Third, that full text of my prepared statement when I testified before the Subcommittee on International Organizations and Movements of the Committee on Foreign Affairs of the House of Representatives, on October 6, 1971, in support of H.R. 10042, the companion bill to S. 3023, be inserted in the record.

(The information referred to follows:)

92^D CONGRESS
1ST SESSION

S. 3023

IN THE SENATE OF THE UNITED STATES

DECEMBER 14, 1971

Mr. JAVITS introduced the following bill; which was read twice and referred to the Committee on Labor and Public Welfare

A BILL

To amend the Public Health Service Act so as to permit greater involvement of American medical organizations and personnel in the furnishing of health services and assistance to the developing nations of the world, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That the Public Health Service Act is amended by adding at
4 the end thereof the following new title:

5 "TITLE XI—INTERNATIONAL HEALTH CARE

6 "SHORT TITLE

7 "SEC. 1101. This title may be cited as the 'International
8 Health Agency Act of 1971'.

II

1 "FINDINGS; DECLARATION OF POLICY

2 "SEC. 1102. The Congress hereby finds and declares that
3 the improvement of health services and assistance on an
4 international basis is in the finest heritage of the United
5 States and clearly indicates our humane interest in the peoples
6 of the developing world. It is in the interest of the United
7 States, in cooperation with other governments and interna-
8 tional organizations, to provide assistance to those develop-
9 ing nations working to help themselves provide needed
10 health services which will be available to all their people.
11 It is, therefore, necessary and desirable for the United States
12 to aid health professionals and activities in the developing
13 areas in the battles against disease, malnutrition, and natural
14 disasters. We must clearly identify our national commitment
15 to this effort.

16 "ESTABLISHMENT OF PROGRAM

17 "SEC. 1103. (a) The President, acting through an
18 agency created by him, to be known as the 'International
19 Health Agency' (hereafter in this Act referred to as the
20 'Agency'), is authorized to carry out programs in further-
21 ance of the purposes of this Act on such terms and condi-
22 tions as he may determine.

23 "(b) The President shall appoint, by and with the ad-
24 vice and consent of the Senate, a Director of the Agency
25 and a Deputy Director of the Agency.

1 “(c) The Director of the Agency may promulgate such
2 rules and regulations as he may deem necessary or appropri-
3 ate to carry out the functions vested in the Agency by the
4 President under this Act, and may delegate to any of his
5 subordinates authority to perform any of such functions.

6 “(d) The President shall prescribe appropriate proce-
7 dures to assure coordination of Agency activities with
8 other activities of the United States Government in each
9 country, under the leadership of the chief of the United
10 States diplomatic mission. It is within the intent of this Act
11 to assist and support the activities of private voluntary agen-
12 cies in the field of health services consistent with the pur-
13 poses of the Act and nothing in this Act shall be construed
14 to limit United States assistance and support of such ac-
15 tivities.

16 “(e) Under the direction of the President, the Secre-
17 tary of State shall be responsible for the continuous super-
18 vision and general direction of the programs authorized by
19 this Act, to the end that such programs are effectively inte-
20 grated both at home and abroad and the foreign policy of the
21 United States is best served thereby.

22 “SEC. 1104. (a) The President may utilize such au-
23 thority contained in the Foreign Service Act of 1946, relat-
24 ing to Foreign Service Reserve officers, Foreign Service
25 staff officers and employees, alien clerks and employees, and

1 other United States Government officers and employees apart
2 from Foreign Service officers as he deems necessary to carry
3 out functions under this Act.

4 “(b) In each country or area in which individuals em-
5 ployed under this Act serve abroad, the President may ap-
6 point a representative of the Agency to have direction of
7 other employees of the Agency abroad and to oversee the
8 activities carried on under this Act in such country or area.

9 “(c) The President shall make provision for such train-
10 ing as he deems appropriate for each individual employed
11 under this Act. In the case of individuals serving abroad,
12 such training shall include intensive language study, cultural
13 studies, and concentration on the variations in medical tech-
14 niques and philosophy from those practiced in the United
15 States.

16 “(d) Experts and consultants or organizations thereof
17 may, as authorized by section 3109 of title 5, United States
18 Code, be employed by the President for the performance of
19 functions under this Act, and individuals so employed may
20 be compensated at rates not in excess of the per diem equiv-
21 alent of the highest rate payable under section 5332 of
22 title 5, United States Code, and while away from their homes
23 or regular places of business, they may be paid actual travel
24 expenses and per diem in lieu of subsistence and other ex-

1 penses at the applicable rate prescribed in the Standardized
2 Government Travel Regulations, while so employed.

3 “SEC. 1105. (a) The President shall assign personnel
4 of the Agency at the invitation of host countries in need of
5 mobile medical and paramedical, technical, and subtechnical,
6 personnel. The personnel of the Agency so assigned shall
7 assist in health related environmental projects, epidemic con-
8 trol, specific disease campaigns, and mass immunization pro-
9 grams. Host country personnel shall be trained to carry out
10 priority health tasks among the people of the host country.

11 “(b) The personnel of the Agency so assigned shall
12 not be concerned solely with infective and epidemic scourges,
13 but shall also direct their attention to other health problems,
14 including alcoholism and drug addiction, which is a problem
15 calling for increased identification and treatment.

16 “(c) The President shall, acting through the Agency,
17 coordinate disaster relief in such a manner that the United
18 States, as a nation, can respond in a more rapid and compre-
19 hensive fashion than has been possible heretofore. The Pres-
20 ident shall, acting through the Agency and in cooperation
21 with the International Red Cross, encourage other nations
22 and international organizations to join with the United States
23 in committing medical and material resources as expedi-

1 tiously as possible and in anticipation of related problems
2 likely to occur under known conditions.

3 "AUTHORIZATION OF APPROPRIATION

4 "SEC. 1106. There is authorized to be appropriated to
5 the President to carry out the provisions of this Act not to
6 exceed \$25,000,000 for each of the fiscal years ending
7 June 30, 1972; June 30, 1973; June 30, 1974; June 30,
8 1975; June 30, 1976; and June 30, 1977."

[From the Congressional Record—Senate, Dec. 14, 1971]

INTRODUCTORY REMARKS OF HON. JACOB K. JAVITS ON S. 3023

S. 3023. A bill to amend the Public Health Service Act so as to permit greater involvement of American medical organizations and personnel in the furnishing of health services and assistance to the developing nations of the world, and for other purposes. Referred to the Committee on Labor and Public Welfare.

INTERNATIONAL HEALTH AGENCY ACT FOR 1971

Mr. JAVITS. Mr. President, I introduce the International Health Agency Act of 1971, an amended companion measure to H.R. 10042 introduced by Mr. CAREY and Mr. FRASER and cosponsored by more than 20 Members of the House of Representatives. This legislation is a significant step forward in America's continuing commitment to help developing nations in the battle against disease, malnutrition, and natural disasters and in their critical need for health care.

DESCRIPTION OF BILL

This bill provides:

First, for the establishment of an International Health Agency which would coordinate our fragmented effort to provide health care through organizations such as the Agency for International Development, the World Health Organization, and other private voluntary and international agencies. This would permit us to eliminate duplication and secure maximum effectiveness of expenditures for disaster relief so that our Nation, in cooperation with other international agencies, can respond in a more rapid and comprehensive fashion to this problem.

Second, training programs for the health personnel who will serve the developing nations. These programs include intensive language study, cultural studies, and concentration on the variations in medical techniques and philosophy existing all over the world.

Third, assignment of agency personnel to assist host nations in need of mobile medical, paramedical, and technical personnel to assist in health-related environmental projects, epidemic control, specific disease campaigns, immunization campaigns, and other health problems, including alcoholism and drug addiction. With the concurrence of the House bill sponsors, my bill includes health-related environmental projects to enable us to provide broad-ranging health services. Until now, parasitic, contagious and endemic diseases have been treated in a vacuum without their appropriate reference to environmental health. We should not continue to treat episodic physical illness while ignoring its causes.

Fourth, that host country personnel are to be trained to meet that country's own health priorities. This is an essential feature of the bill. It insures that we will assist developing nations to help themselves in accordance with their own priorities. We should not force them to remain dependent upon our medical resources. This modification of the bill also has the concurrence of the House bill's sponsors.

Fifth, authorization of appropriations of \$25 million for 5 fiscal years.

SUPPORT FOR LEGISLATION

Among the outstanding international health experts who appeared in support of this legislation at hearings before the House Foreign Affairs Subcommittee on International Organizations and Movements are: Dr. Kevin Cahill, director, Tropical Disease Center, St. Claire's Hospital, N.Y., Mark Perlman, professor of economics, University of Pittsburgh, Dr. George Lythcott, associate dean and associate professor, Columbia School of Medicine, Dr. John Bryant, director, School of Public Health Administrative Medicine, Columbia, and Dr. Edward O'Rourke, Dean of School of Public Health, University of Hawaii. This legislation also has the support of the National Association for Practical Nurse Education and Service.

PROBLEM OF U.S. HEALTH SHORTAGE

The inadequacies of our own health system do not, I believe, make it at all inappropriate for our Nation to make a strengthened commitment to the health of others who have much less medical care, if any at all. Indeed, to export some badly needed medical manpower, even in a time of domestic need, can be in our Nation's own best interest.

It is only fitting that America make a commitment to utilize its tremendous medical might to help others.

MEDICAL DIPLOMACY

As Dr. Kevin Cahill, the author of the idea in this bill, so aptly put it—"medicine is our untapped resource." It is a form of aid we can offer that is unique. It cannot be called either political nor military aid. This aid is necessarily offered by a new kind of diplomat, the doctor and other health professionals. In a single global community where disease knows no geographic barriers, he is an ideal channel for modern international communication.

Health care is the developing nation's most critical basic need, for the gift of health is the greatest gift of all. This will require redirection of our foreign assistance priorities. To avoid the existing fragmentation and best implement our concern for health assistance, we should establish an administrative structure best suited to accomplish that end. An international health agency, as a new and separate executive agency, is the structure that can provide the most unified and coordinated approach.

To attain and maintain peace, man's basic rights such as health care must be guaranteed. One of the primary concerns of a developing nation is the health of its people and this concern is closely tied to the support the people are willing to give to the government. The eminent British statesman Benjamin Disraeli said:

The health of the people is really the foundation upon which all their happiness, and all their powers as the state, depend.

In the past it has been the practice of our Nation to respond unilaterally to calls for help. However, at this time, strong belief in folk or local practice medicine runs through the developing countries of the world. Therefore, to continue our assistance without full consideration of the prevailing culture and psychology in the host country is not the most effective way and often repels the very country we are trying to help.

SELF-HELP PROGRAMS

Training of the host country's health personnel must be an integral part of every aid program we embark on. In the past it has often happened that a team of our medical specialists have gone into a country, given vaccinations, and then left, only to be called in again when the need occurs. This is not only inefficient health policy, but ineffective foreign policy as well. Programs of medical and technical training must be initiated concurrently with health aid programs. The host countries must be willing to make a contribution in kind and to lend personnel. We must train that personnel to continue to program after we have gone.

It is our responsibility as a technologically advanced nation to aid developing nations to help themselves. I do not believe it is good policy or practice to make these countries continually dependent upon us. Rather, it is significant that we give the initial aid when we can and encourage the host countries' continuance of the program after we have gone.

A self-help program supported and fostered by American assistance as envisioned by this bill will permit the establishment of cadres of host country health personnel which will provide the nucleus of necessary public health and medical leadership.

ENVIRONMENTAL HEALTH

I am also concerned that in the past we have not recognized the significance of coordinated health programs. Rather, parasitic, contagious, and endemic diseases were treated in a vacuum without reference to environmental health problems. A broad-ranging program to reduce the rate of infant mortality is almost ineffectual in some countries without a coordinated effort to increase the nutritional standard. A program designed to thwart an intestinal disease that is caused by poisoned water is ineffective unless there is a coordinated program to try to

purify that water, or at least find a new source of it. We cannot continue to do what we have done in the past, treat the episodic physical ills while ignoring their causes.

Health is an integral part of human development as Dr. Cahill shows us by the example of irrigation projects which, when completed, altered the ecology of a region and lead to the spread of certain diseases in that region.

CONCLUSION

I would emphasize that, if aid is to be effective and responsive—it cannot be a transfer merely of our goals, priorities, and technological prowess—but also must be an effort to aid the developing countries attain a standard of living and health that will allow them to develop in their own way. My bill seeks to do this by the creation of a new international mechanism to improve health care throughout the developing world.

PREPARED STATEMENT OF HON. JACOB K. JAVITS BEFORE THE SUBCOMMITTEE ON INTERNATIONAL ORGANIZATIONS AND MOVEMENTS OF THE COMMITTEE ON FOREIGN AFFAIRS, HOUSE OF REPRESENTATIVES, OCTOBER 6, 1971

Mr. Chairman and members of the Subcommittee: I appear to testify in support of H.R. 10042, introduced by the Chairman, Mr. Fraser, and my colleague from New York, Mr. Carey, to establish an International Health Agency. I am pleased to announce that I will introduce a companion bill in the Senate, for I believe this legislation can be another major step forward in America's continuing commitment to help close the gap between the developing and the developed nations in this crucial field of improved health care. For, health is mankind's most basic, but regrettably often least recognized, right.

I have long been concerned with the health-care crisis confronting America. I have authored legislation to cure this deficiency, ranging from aid to medical and other health-professions schools, programs to develop physicians' assistance, innovative new systems of health-delivery national health insurance and new financing mechanisms for hospitals. This crisis is evidenced by marked shortages for health personnel and exacerbated by obsolete health facilities. However, the inadequacies of our own health system do not, I believe, make it at all inappropriate for our nation to make a strengthened commitment to the health of others who have much less medical care—if any at all—than we. Indeed, to export some badly needed medical manpower even in a time of domestic need can be in our nation's own best interest.

If our nation is to be truly great it will be measured best by acts it performs for the benefit of mankind. Time and distance no longer enslave us and if we are able to live and survive in a free world, then all nations, large and small, have a right to good health. It is only fitting that America make a commitment to utilize its tremendous medical might to make that right a reality.

As Dr. Kevin Cahill, the author of the idea in this bill, so aptly put it—medicine is our untapped resource. It is a form of aid we can offer that is unique. It can neither be called political, or military. It has the inherent capacity to rise above ideological, political and economic differences. This aid is necessarily offered by a new kind of diplomat, the doctor and other health professionals, and the physician is much more readily accepted by developing nations than the diplomat. In a single global community where disease knows no geographic barriers, he is an ideal channel for modern international communication.

The priority of health is the developing nation's most critical basic need, for the gift of health is the greatest gift of all: and this will require and deserve redirection in our foreign assistance priorities. To avoid the existing fragmentation and best implement our concern for health assistance, we should have the administrative structure best suited to accomplish that end. An International Health Agency, as a new and separate executive agency, is the structure that can provide the most unified and coordinated approach.

In a world ravaged by hunger and disease, peace is impossible. To attain and maintain peace, man's basic rights must be guaranteed. Past experience has shown that few programs so closely tie the people to the central government as do those which deal with public health. One of the primary concerns of a developing nation is the health of its people and for the political infrastructure to develop

into a viable and responsible body politic, it welcomes humanitarian external medical assistance. The eminent British Statesman Benjamin Disraeli said: "The Health of the people is really the foundation upon which all their happiness, and all their powers as the state, depend."

In the past it has been the practice of our nation to respond unilaterally to calls for help. By unilaterally I mean without acting in consultation with and receiving practical assistance from the countries we are serving. A strong belief in "folk" or local practice medicine runs through the developing countries of the world. Therefore, to continue our assistance without full consideration of the prevailing culture and psychology in the host country is ineffectual for there is no follow-through or preventive health techniques utilized but often repels the very country we are trying to help.

Training of the host country's health personnel must be an integral part of every aid program we embark on. In the past it has often happened that a team of our medical specialists have gone into a country, given vaccinations, and then left, only to be called in again when the need recurs. This is not only inefficient health policy, but ineffective foreign policy as well. Programs of medical and technical training must be initiated concurrently with health aid programs. The host countries must be willing to make a contribution in kind, lend personnel, and we must train that personnel to continue the program after we have gone.

It is our responsibility as a technologically advanced nation to aid developing nations to help develop themselves. Perhaps this is the most significant point. They need to develop in the way that best suits their own people. I do not believe it is good policy or practice to make these countries continually dependent upon us. Rather, it is significant that we give the initial aid when we can and encourage the host countries' self-supportive continuance of the program when the need for us has gone. To help a new nation ultimately to stand on its own feet, by giving it the assistance it needs rather than that which we need to give, should and must be the primary goal of medical or any assistance we lend.

A "self-help" program supported and fostered by American assistance as envisioned by this bill will permit the establishment of cadres of host country health personnel which when each host country recognizes the importance of its own investment in health programs, will provide the nucleus of necessary public health and medical leadership.

I am also concerned that there has been a grave fault in our past policy, one of blindness to the significance of coordinated health programs; or parasitic, contagious, and endemic diseases treated in a vacuum without reference to environmental health problems. A broad-ranging program to reduce the rate of infant mortality is almost ineffectual in some countries without a coordinated effort to increase the nutritional standard. A program designed to thwart an intestinal disease that is caused by poisoned water is ineffective unless there is a coordinated program to try to purify that water, or at least find a new source of it. We cannot continue to do what we have done in the past, treat the episodic physical ills while ignoring their causes.

It is for these reasons that I intend—with the permission of the authors of H.R. 10042—to offer amendments to their bill when I introduce a companion bill in the Senate. First, in addition to those areas now defined by the bill, I would authorize the International Health Agency personnel to assist in "health-related environmental projects" and thus broaden their scope of activities to be all-encompassing. Second, I would not rely on "whatever possible," that emphasis be placed on training host country personnel to perform priority health tasks. Rather, I would in all instances mandate that host country personnel shall be trained to meet the host country's determination of its health need priorities.

Finally, although I do not deem it essential for the purposes of the legislation per se. I agree with many of the witnesses that have previously appeared before the Subcommittee that health cannot be considered separately from the fabric of a country's social and economic structure. Therefore, I urge that the Committee, if it favorably reports on the bill, make abundantly clear that although it is the legislative intent to view health as part of an overall program of assistance to assure the host country's improved quality of life, health is not a component of any politically motivated assistance program.

Health is an integral facet of human development as Dr. Cahill shows us by the example of irrigation projects which, when completed, altered the ecology and various vectors of disease to multiply and to spread, causing disease and death to the host nation.

As the Subcommittee knows, the two most significant organizations that deal with international health are WHO and AID. The function of WHO is basically as an advisory and coordinating service. Its health budget in 1971 of \$95 million is one-third of the New York City's Department of Health budget, and one-third of this is expended for communicable diseases. Thus, it is prevented from initiation and continued participation in any other meaningful widespread programs.

At the same time, AID has unfortunately suffered annual reductions in its health budget since 1968, from \$164 million to \$66 million in 1971.

Of the total health segment of the AID budget for 1971 of \$163 million; 60% is for population control. Further, as the Subcommittee knows, the international health segment of AID, health and population programs combined, is but a fraction of its total operations, less than 10% of the 1971 total aid appropriations, excluding military aid appropriations. Perhaps the continued reduction of AID funds stems from the need to see health as a separate entity from AID's other functions, which are political, military, and economic. An International Health Agency should be separated from such programs, if not health aid could be considered to be a component of a politically and economically motivated foreign assistance program that is intimately associated with our military aid programs.

The International Health Agency that I support should not be confused with programs of some of the other health agencies in existence, such as the Fogarty Center for International Health, of the National Institutes of Health. These agencies are primarily experimental in nature, and are concerned with research studies. The developing nations are weary of studies being done on them, and their particular health problems. Their needs are much more practical.

A misguided effort discussed by Dr. Cahill in *The Untapped Resource* is a prime example. Why a major clinical research study on zinc metabolism in Egyptian dwarfs which offended the host country and caused international bad will? How much more useful for Egypt and U.S. foreign policy if we concerned ourselves with their major endemic illness—infant diarrhea—which causes 50% of Egyptian child mortality.

Epidemic disease does not respect national boundaries. With increased travel and communication, we cannot afford to believe that a widespread epidemic in Pakistan will have no effect on our own nation's health and well-being. Therefore, I would encourage the Subcommittee to consider that funding priority be given programs within our own hemisphere, in consideration of their extreme significance to our nation. I would suggest we consider perhaps the nearest 6 Central American republics between southern Mexico and Columbia and astride and adjacent to our own Panama Canal; or to the Carribean countries which are in epidemic distress with diseases and diseased vectors so significantly relevant to the spread and migration of epidemic diseases into the United States.

Finally, I would emphasize that if aid is to be effective and responsive—it cannot be a transfer merely of our goals, priorities and technological prowess—but also must be an effort to aid the developing countries attain a standard of living and health that will allow them to develop in their own way. The day is gone—and it is good that it is gone—when we can or should even attempt to define other nation's priorities and goals. How much better, and more likely to succeed, would be the application of our vast resources to the solution of their priorities and problems, especially when there would appear to be absolutely no conflict between health priorities and problems and our own international goals.

92D CONGRESS
1ST SESSION

H. R. 10042

IN THE HOUSE OF REPRESENTATIVES

JULY 22, 1971

Mr. CAREY of New York (for himself and Mr. FRASER) introduced the following bill; which was referred to the Committee on Foreign Affairs

A BILL

To permit greater involvement of American medical organizations and personnel in the furnishing of health services and assistance to the developing nations of the world, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That this Act may be cited as the "International Health
4 Agency Act of 1971".

5 SEC. 2. The Congress hereby finds and declares that the
6 improvement of health services and assistance on an inter-
7 national basis is in the finest heritage of the United States,
8 and clearly indicates our humane interest in the peoples of
9 the developing world. It is in the interest of the United

1 States, in cooperation with other governments and inter-
2 national organizations, to provide assistance to those devel-
3 oping nations working to help themselves provide needed
4 health services which will be available to all their people.
5 It is, therefore, necessary and desirable for the United States
6 to aid health professionals and activities in the developing
7 areas in the battle against disease, malnutrition, and natural
8 disasters. We must clearly identify our national commitment
9 to this effort.

10 SEC. 3. (a) The President, acting through an agency
11 created by him, to be known as the "International Health
12 Agency" (hereafter in this Act referred to as the
13 "Agency"), is authorized to carry out programs in further-
14 ance of the purposes of this Act on such terms and condi-
15 tions as he may determine.

16 (b) The President shall appoint, by and with the ad-
17 vice and consent of the Senate, a Director of the Agency
18 and a Deputy Director of the Agency.

19 (c) The Director of the Agency may promulgate such
20 rules and regulations as he may deem necessary or appropri-
21 ate to carry out the functions vested in the Agency by the
22 President under this Act, and may delegate to any of his
23 subordinates authority to perform any of such functions.

24 (d) The President shall prescribe appropriate proce-
25 dures to assure coordination of Agency activities with other

1 activities of the United States Government in each country,
2 under the leadership of the chief of the United States diplo-
3 matic mission. It is within the intent of this Act to assist
4 and support the activities of private voluntary agencies in
5 the field of health services consistent with the purposes of
6 this Act and nothing in this Act shall be construed to limit
7 United States assistance and support of such activities.

8 (e) Under the direction of the President, the Secretary
9 of State shall be responsible for the continuous supervision
10 and general direction of the programs authorized by this
11 Act, to the end that such programs are effectively integrated
12 both at home and abroad and the foreign policy of the United
13 States is best served thereby.

14 SEC. 4. (a) The President may utilize such authority
15 contained in the Foreign Service Act of 1946, relating to
16 Foreign Service Reserve officers, Foreign Service staff
17 officers and employees, alien clerks and employees, and
18 other United States Government officers and employees apart
19 from Foreign Service officers as he deems necessary to carry
20 out functions under this Act.

21 (b) In each country or area in which individuals em-
22 ployed under this Act serve abroad, the President may
23 appoint a representative of the Agency to have direction
24 of other employees of the Agency abroad and to oversee the
25 activities carried on under this Act in such country or area.

1 (c) The President shall make provision for such training
2 as he deems appropriate for each individual employed under
3 this Act. In the case of individuals serving abroad, such
4 training shall include intensive language study, cultural
5 studies, and concentration on the variations in medical tech-
6 niques and philosophy from those practiced in the United
7 States.

8 (d) Experts and consultants or organizations thereof
9 may, as authorized by section 3109 of title 5, United States
10 Code, be employed by the President for the performance of
11 functions under this Act, and individuals so employed may
12 be compensated at rates not in excess of the per diem equiva-
13 lent of the highest rate payable under section 5332 of title
14 5, United States Code, and while away from their homes
15 or regular places of business, they may be paid actual travel
16 expenses and per diem in lieu of subsistence and other
17 expenses at the applicable rate prescribed in the Standardized
18 Government Travel Regulations, while so employed.

19 SEC. 5. (a) The President shall assign personnel of the
20 Agency at the invitation of host countries in need of mobile
21 medical and paramedical, technical, and subtechnical, per-
22 sonnel. The personnel of the Agency so assigned shall assist
23 in epidemic control, specific disease campaigns, and mass
24 immunization programs. Wherever possible, emphasis shall

1 be placed on training host country personnel to carry out
2 priority health tasks among the people of the host country.

3 (b) The personnel of the Agency so assigned shall not
4 be concerned solely with infective and epidemic scourges,
5 but shall also direct their attention to other health problems,
6 including drug addiction, which is a problem calling for
7 increased identification and treatment.

8 (c) The President shall, acting through the Agency,
9 coordinate disaster relief in such a manner that the United
10 States, as a nation, can respond in a more rapid and compre-
11 hensive fashion than has been possible heretofore. The Presi-
12 dent shall, acting through the Agency and in cooperation
13 with the International Red Cross, encourage other nations
14 and international organizations to join with the United States
15 in committing medical and material resources as expedi-
16 tiously as possible and in anticipation of related problems
17 likely to occur under known conditions.

18 SEC. 6. There is authorized to be appropriated to the
19 President to carry out the provisions of this Act not to ex-
20 ceed \$25,000,000 for each of the fiscal years ending June 30,
21 1972; June 30, 1973; June 30, 1974; June 30, 1975; and
22 June 30, 1976.

Senator HUGHES. We are pleased to have as our witnesses today Dr. John Bryant, and Dr. Carl Taylor.

Dr. Bryant is the director of the School of Public Health at Columbia University. He has recently completed a study of health programs, health care systems and education of health personnel in Africa, Asia, and Latin America.

Dr. Taylor is the chairman of the Department of International Health at the School of Hygiene, Johns Hopkins University. Dr. Taylor has recently served as director of health programs in India and will draw from this experience in his testimony.

Dr. Bryant and Dr. Taylor, you may proceed with your statements as you desire.

STATEMENTS OF DR. JOHN BRYANT, DIRECTOR OF THE SCHOOL OF PUBLIC HEALTH, COLUMBIA UNIVERSITY, AND DR. CARL TAYLOR, CHAIRMAN OF THE DEPARTMENT OF INTERNATIONAL HEALTH AT THE SCHOOL OF HYGIENE, JOHNS HOPKINS UNIVERSITY

Dr. BRYANT. I begin with the understanding that these hearings are being held as steps leading to the possibility of formulating legislation to support programs aimed at assisting less developed countries to evolve more effective means for providing health care for their populations, while at the same time benefiting the United States, which is faced with the same set of questions, namely how to meet the health needs of all the people of a nation with the resources that are available.

Building on that understanding, I will attempt a rough analysis of the issues involved in meeting health needs in less developed countries.

These issues fall into several categories. First, diseases and hazards to health. Second, the constraints under which nations must attempt to deal with those problems, third, the nature of the health care systems required to respond to those problems; and, fourth, issues that should be taken into account by those trying to assist such nations in meeting their problems.

I will focus more on the problems and the state of the knowledge for dealing with those problems than with the work of existing agencies. My purpose is to provide a feeling for the nature of the problems—their complexity, the human costs involved, and the limited resources available for dealing with them—aimed as at ameliorating these problems.

DISEASES AND HAZARDS TO HEALTH

Let me begin with the first cluster of problems: diseases and hazards to health.

Problems of developing countries fall under the areas of infectious and parasitic diseases, malnutrition and environmental deficiencies. There are others, but these lead the list. Woven through these, and complicated them at family and national levels, are the pressures of rapidly growing populations.

Children carry the great burden of ill health in developing countries; 35 to 60 percent of all deaths occur in children under 5, and they represent 17 percent of the population. In Southeast Asia, 40 percent of the children die by the fourth year, a number of deaths that is not reached in North America until the age of 60. In West Africa that number of deaths is even higher. The infant mortality in Latin America is 2 to 4 times that in North America, while the number of deaths in children 1 to 4 years of age is 25 times that in North America. The infant mortality in western Nigeria was 12 times that of North America, whereas the death threats in children from 1 to 4 years of age reached 70 times that of North America. The differences between infant mortality (deaths under 1 year of age) and deaths to 4 years of age, can be explained in part by the fact that during the first year of age the child is within the close protection of the mother, receiving maximum attention and nutrition, whereas during the first year of age children are often separated from their mothers and live in competition for both food and affection with the other children in the home.

The principal causes of sickness and death of small children in the developing world are diarrhea, respiratory infections, and malnutrition. There are also tuberculosis, measles, whooping cough, malaria, and tetanus.

Each of these should not be considered as an isolated disease, wreaking its individual damage on children. Rather, there are complex interrelationships among these diseases. Malnutrition can be used as an example of one disease with intricate relationships with other diseases and with the society in which it occurs. Malnutrition contributes substantially to the mortality of diseases that would not otherwise be fatal—measles, for example. The death rate due to measles in Latin America is roughly 25 times that in North America, the main reason being the high prevalence of malnutrition in children who contract measles. We are developing an increasing understanding of the magnitude of retardation in both mental and physical development of children that results from malnutrition.

The malnutrition is due not only to a lack of food in the homes, but also to customs against using certain kinds of foods. There may be taboos against feeding children rich foods, such as protein-containing meat and eggs. Competition for available food and attention also plays a role. Family size and intervals between births controlling to malnutrition. Malnutrition is more prevalent in large families and among those children whose following siblings come closely. Infection contributes to malnutrition by increasing nutritional requirements, as in a sick and feverish child, and also by contributing to the body's inability to absorb nutrients.

Two-thirds of the children of Asia are malnourished. Consider the consequences of that amount of malnutrition in human as well as economic terms in the development of a nation.

The answer to the problems of malnutrition are not simple. They are not to be found in logistical approaches of trucking in large amounts of protein containing food. The answers are imbedded in a tangled network of social, economic, political and health problems. Ultimately, behavioral changes are involved, changes that follow from decisions

made by families in the privacy of their homes, on how they feed their children and how they determine the size and spacing of their families.

Let me use an example. A mother living in a rural village of Africa or Asia awakens in the middle of the night. Her small child is crying with an earache. She sits with the child through the night. In the morning, she carries him, traveling by foot, ox cart, or bus to a health center.

There she waits for hours, along with many others. The physician who finally sees the child, learns of the earache, looks into the pus encrusted ear and prescribes ear drops and penicillin. This is what our modern biomedical technology has to offer the child. The suffering of the moment is relieved, and the child returns home with the mother.

What has happened? A sick child from an underprivileged, overcrowded home is brought to an overcrowded, understaffed clinic. The mother tells of the child's pain and the doctor focuses on that. In fact, the child also has malnutrition and diarrhea, as have perhaps half or two-thirds of the village children.

The doctor might ask the questions and make the observations that would lead to those diagnoses, but he has already seen nearly a hundred patients in that day and he may have many more to see before the day is done. The mother and child return home. The desperate suffering of the moment is relieved and that must not be minimized, but the factors that gave rise to the diarrhea and malnutrition—deprivation, ignorance, customs, a large number of children in a small, crowded home—these remain unchanged. The ear infection will subside, but the slow erosion of the child's physical and mental capability by malnutrition and repeated infections will continue.

We can say this. Large numbers of the world's people have no access to modern health care. Many more who can reach medical care, as this boy did, are not benefited by it. The care they get is not the answer to the problems that they have.

OUR LIMITED CAPABILITY FOR HANDLING THESE DISEASE PROBLEMS

Now, what is our capability for handling these diseases and hazards to health on a world scale? First, let me speak of a group of diseases for which our biomedical knowledge is inadequate in a technical sense. Schistosomiasis is a parasitic disease that afflicts 200 million of the world's people. It is exceedingly difficult to control. One approach that is frequently used is to try to get rid of the snails that are intermediate hosts for the disease. This approach in one seriously afflicted country would require eradicating snails from 200,000 kilometers of canals.

Onchocerciasis is a parasitic disease causing blindness. It afflicts 30 million people, and currently we have no answer to the problem.

Trypanosomiasis, or sleeping sickness, afflicts 7 million people. In Central Africa, the cattle population could be doubled if that disease could be eradicated.

Filariasis, of which elephantiasis is a complication, afflicts 200 million people, and there is no adequate answer for this problem.

Iron deficiency anemia, a relatively simple problem that we handle in this country quite readily, afflicts 700 million people, and even

though we know a great deal about this problem, the 700 million remain afflicted.

Progress in taking care of these problems is unlikely until significant discoveries provide new means of attacking them. Here is a call for substantial investment in biomedical research on these health problems.

Let me proceed to a second group of diseases. Our biomedical understanding of these diseases is substantial. We can effectively take care of patients with these problems under ideal circumstances—when they are in the hospital and we can bring the full force of our technical capability to bear. But, we have not been able to reach the problems where they exist. Nutritional deficiencies, tuberculosis, diarrheal diseases, acute respiratory infections, rheumatic heart disease, are examples of problems about which we know a great deal and for which we have done relatively little.

As a clear example, there are a number of contagious diseases for which we currently have immunizations procedures—smallpox, measles, whooping cough, diphtheria, and polio. With the exception of smallpox, we have been unable to initiate and to maintain effective immunizations programs for children in most of the countries of the developing world. This stands as one of the most distressing failures in the health area and involves one of the most cost-effective solutions available to us.

A underlying reason for this failure is the inadequacy of basic health services reaching into the communities on which these specific solutions could be built.

Let me emphasize then that there are serious technological deficiencies in dealing with some diseases for which biomedical research is the required approach. There are others for which the technological gap is not so much in our lack of understanding of how to care for patients with these diseases as in how to reach those in need with that care.

Now I will proceed to a second cluster of problems. These involve the constraints under which solutions to the health problems must be developed. The first I would like to mention is the demand of people who seek care. In Africa, for example, there is an average of two to three visits to a health facility per person per year—that is to be contrasted with five visits per person per year in our own country. In Latin America, the figure is about half that. To use a specific national setting, Sudan is a nation of 15 million people with about 35 million outpatient visits per year and 250,000 hospital admissions. Set that demand for care against the fact that they have roughly 300 government physicians. If every physician worked 7 days a week taking care of those patients, he would have to see 300 patients a day and simultaneously be responsible for 40 hospitalized patients.

These paralyzing numbers of people who seek health care must be taken into account as we plan health services. The medical problems that lead them to seek care are a mixture of trivial and tragic. Many in need do not come, and for many of those who seek care for serious problems, such as malnutrition, diarrhea, and large families, the answers are not to be found in hospital outpatient clinics. So services must reach into communities, but at the same time the demand must be dealt with as it reaches the health facilities.

LIMITED RESOURCES FOR HEALTH CARE

Now let me speak of limitations of resources. I will deal with personnel and then money.

We hear a great deal about the ratios of physicians to populations. In the less developed countries this varies from one physician to every 2,000 people to one physician to 100,000 people.

But maldistribution of physicians within a country exaggerates these numbers. In the rural areas of the less developed world, where most of the population lives, the ratio of physicians to population is seldom better than 1 to 50,000, it is usually in excess of 1 to 100,000, and occasionally approaches 1 to 1 million. Similar numbers apply to nursing personnel. Auxiliary or paramedical health personnel are present in substantially greater numbers.

But ratios of health personnel to population is not the only story. In some of the great cities of the world, we see physicians underworked and people underserved. In one of the great cities of Latin America, for example, the ratio of physicians to population is better than 1 to 1,000. Some doctors are unemployed, yet 40 percent of the people die without being seen by a physician. Here, the problem is not resource limitations alone, but a failure to use those resources well.

Now let us consider the matter of the money available for health care. On a world scale, the money spent by the less developed countries for health care ranges from about 25 cents per person per year in Indonesia to over \$350 per person per year as spent in the United States. In most of Central Africa and Asia, the amount varies from less than \$1 per person per year to \$4. In Latin America and the Middle East, the figure is somewhat higher.

Generally speaking, the expenditure for health care will grow as the economy of those countries grows. The per capita gross national product of most developing countries is growing at the rate of 1 to 3 percent per year, with some falling on either side of those numbers—a doubling rate of around 25 to 70 years. What will be the result of doubling a per capita health expenditure of 50 cents or \$5 over the next 25 or 70 years? Here we are faced with a reality of small numbers growing at slow rates.

The amount of money and the number of personnel available for health care varies substantially among developing countries. In Nigeria, for example, roughly 50 cents per person per year is spent on health care and the ratio of physicians to population in the rural areas from 1 to 50,000 or 1 to 200,000. In Jamaica, in contrast, the amount spent on health care exceeds \$10 per person per year and the ratio of physicians to population is closer to 1 to 2,000. Thus, even within the less developed countries there are substantial variations, and these variations must be taken into account in thinking about approaches to the problems.

The discussion of needs and resources has been reduced to a simple and yet powerful equation: a physician with his staff will have to care for tens of thousands of rural and urban people on a few cents or a few dollars per person per year. And this is the team and these are the resources that stand at the interface between the technology of health care and the needs of most of the world's people.

THE FORM AND FUNCTION OF HEALTH CARE SYSTEMS

Let me now talk about health care systems themselves. Health care systems as they exist in most developing countries reach a relatively small percent of the population, in some countries as low as 10 percent. And while only 10 percent of the population may be reached by health care even that 10 percent may be receiving a kind of health care that is not relevant to their problems.

As we look at those health care systems, we will see flaws of various kinds. The physician, for example, has often received an education that follows a western pattern of medical education. He has been trained to provide very good care for individual patients in a hospital setting, but that is not what is required to provide leadership in making health care available to large numbers of people on the kinds of resources that are available.

For example, in many countries there is a reluctance to delegate responsibility to nonprofessional personnel, delegation of responsibility to lower level personnel is an element in health care.

The health care systems are often not well planned, or they may be well planned, but they may not be accepted because of traditions of medical care that follow western patterns, or for political reasons or the medical profession itself, in the name of protecting the quality of care, may oppose changes that are needed to reach larger numbers of people.

Within this spectrum of nations there are often innovative approaches that can provide examples for the rest of the developing world, and for this country as well.

The main elements of a health service include the network of facilities—health centers, hospitals, mobile units and the health personnel. Facilities must be within the reach of people who need them, and the health personnel must reach out to those who are in need but do not seek care. It is worth remembering the case of the boy suffering from an ear infection and also from malnutrition and diarrhea. Although he went through the clinic and was seen by a nurse and the doctor, nothing happened to improve his chances in life. For something meaningful to happen would require that the purpose and action of the system be geared to his actual need. The need in this instance called for treatment of his malnutrition and diarrhea as well as his ear, and that some action be directed toward the causes of these problems in the communities.

Admittedly, this can be complex and difficult, but if this kind of problem is not faced squarely, if it is not made an actual part of the health care technology, then the technology will not connect with the need.

In describing a health care system of, let's say, a model that could be implemented in less developed countries, particularly in Asia and Africa let me build it around some of the resources already described.

A rural district of 50,000 people; less than a dollar a year to spend on each person; one physician, one nurse, and a cluster of auxiliary personnel, persons with 6 to 10 years of elementary schooling plus 3 to 36 months of technical training.

A MODEL RURAL HEALTH CARE SYSTEM

Add to this a substantial number of village level persons with a few weeks or months of training. The population of 50,000 suffers from the kind of problems already mentioned, and is scattered over 500 square miles of territory with inadequate communication and roads.

The demand for health services, that is, people coming to health facilities, will number 100 to 300 visits per day. Many of the visits are for trivial reasons, but others are for serious reasons, and many in need of care do not come at all.

The resources are inadequate to care for all, and the most important decisions to be made are those which determine which problems are to be tackled, since all problems cannot be dealt with, whom to serve when all cannot be served, how to allocate the limited resources, including health manpower, and how to supervise those health personnel.

Most of the gains to be made in health care will be made by these lower level auxiliary and village level personnel. These are the personnel who are adequate in number to reach into the communities and they come from a socioeconomic level where they can gain the confidence of the communities where they live. They provide the possibility of meeting the immediate needs and demands and of edging the population toward behavioral change in crucial areas such as nutrition, family planning, and sanitation. These lower level personnel can refer to professional personnel the more complex problems that they cannot handle themselves.

We see, then, the need for developing a network of health facilities extending from the communities themselves to health posts, larger health centers, small rural hospitals to regional hospitals, and appropriate levels of health personnel scattered through that network, each level of personnel getting consultation from the next level on the more complicated problems.

Several districts form a province; several provinces form a region. Collectively, then, we can visualize a regional or a national health care system with decisions, resources, information, and patients flowing to appropriate levels.

Dr. Taylor will give you examples of research programs aimed at grappling with these problems in specific places.

RESOURCES AND CAPABILITIES NEEDED TO IMPROVE HEALTH CARE SYSTEMS

Every country has a health care delivery system. It is often directed and implemented by knowledgeable and devoted people who know what the problems are and what needs to be done. What they are usually lacking is technical expertise in certain areas, such as in health planning. They do not have access to the kinds of people who would form a team to look at these complicated problems. They often lack management capability. In addition, they have the obstacles of political, professional, and traditional resistances.

Now, what I would like to do in the next few minutes is to consider more specifically some of the capabilities and resources that are

needed to develop or substantially improve on health care delivery systems.

First is a central health planning capability, staffed with skilled persons, a capability that is appropriately related to the decision-making process of the Nation.

Senator HUGHES. Dr. Bryant, excuse my interruption, but I am trying to follow this. You are talking about localizing in the nations.

Senator JAVITS. You are not talking about this country?

Dr. BRYANT. No.

Senator JAVITS. You will come to that.

Dr. BRYANT. Some of the things I have been saying would apply to this country.

Senator JAVITS. Yes, but you are saying we should give the aid, and you will tell us how to do it.

Dr. BRYANT. Yes; there should be in these countries a central planning capability that is appropriately related to the decisionmaking process of that country, in which it is possible to define the problems of that country, design alternative programs aimed at meeting those problems with a keen sense of the cost effectiveness of those alternative programs, to implement those programs, and evaluating the effectiveness of those programs after they have been implemented.

An example of one of the choices to be made is between more traditional and more expensive hospital based care and out of hospital care, including preventive programs.

Complementing the central planning capability must be a planning capability at regional and local levels. Central planning must leave to regional and local levels an array of decisions dependent on local problems, resources, and political situation. Then integration between local and central planning becomes of essential importance.

Another element that is important in each country, is a research capability in health care delivery, including work at field sites, where basic data can be used to define health problems, design alternative ways of dealing with them, and so forth.

Good examples of such field training sites are in Narangwal, India, in Ghana, a program supported by the Agency for International Development, and in Bangkok, in a program supported in part by the Rockefeller Foundation.

Another issue that becomes important is how to disperse the knowledge that is developed in these health care research programs to other parts of that country and the developing world.

A splendid example is a simple approach to taking care of children under 5 years of age developed in West Africa under the leadership of Dr. David Morely. The clinics he designed are based largely on the services provided by a nurse or an auxiliary nurse under the supervision of a visiting physician.

These clinics are now spread through Africa by the hundreds and there are a number of them in New York City in addition.

Another important issue is the need for innovative approaches to the education of health personnel, and here we need a research orientation.

We need this research orientation, on the one hand, to help us break away from more traditional western patterns of education of health personnel and, on the other hand, to link the educational programs to the health care delivery system of those countries.

We would like to see the integration of educational programs for a variety of health personnel—medical students, nursing students, students in schools of public health, and a variety of allied health personnel—related to one another and to the research field sites.

In this connection it is important to be realistic about the numbers of health personnel who will choose to work in the rural areas and the urban slums where they are needed. It is probably not realistic to expect that large numbers of professional level health personnel will choose to spend their careers in those settings.

At best, using high incentives or compulsions, a substantial number may spend a relatively short period of time in those settings and a few will choose to spend their lives there.

Senator HUGHES. What do you mean by compulsion? Do you mean as a result of their education, they will serve awhile in the country?

Dr. BRYANT. In some of the developing countries the education is provided by the Government and the Government requires a period of 2 to 5 years of Government service before they can go on to other careers.

Sudan is an example of a country with a high incentive to serve. The Government will not employ physicians for careers in the health services until they have spent time serving the rural areas. It is not required, but if you want to work for the Government, which is the principal employer, it is wise to serve in these areas.

The point I am making is that as we strive to design effective health services, we must appreciate that the professional health personnel that will be available to lead those health services will be limited in number.

Now in the preceding moments, I have spoken first of health problems and the hazards to health, and attempted to define what is required to attack those problems.

I have spoken of the constraints under which health programs will have to be developed in order to meet those diseases and hazards to health, realizing that those constraints, will change slowly over the years ahead. The challenge is to use them well.

Third, I have spoken about health care delivery systems in which the central issue is to make best use of resources in an attempt to serve as many people as possible. Then I spoke of the capabilities and resources needed to develop those health care delivery systems.

Now the last few minutes, let me turn to what we might call the style of technical assistance. external technical assistance, of necessity, will be marginal in quantity and short term in time. It is important that it be used effectively. First. I think it should not be aimed purely at the delivery of health services.

Senator HUGHES. Again excuse the interruption, but being a layman, sometimes it is difficult for me to follow precisely what you mean. What are you describing by the term "external technical service"?

Dr. BRYANT. I would say resources coming from this country to assist a less-developed country in improving its health care system.

THE FORM AND STYLE OF TECHNICAL ASSISTANCE

Senator HUGHES. That is what I thought, but I wanted to make sure.

Senator JAVITS. They should be given money, or services?

Dr. BRYANT. Well, that is more complicated.

Senator JAVITS. What are you saying?

What are we to give them? I don't get it either.

Dr. BRYANT. Let me come to that in a moment, if I may, Senator. The one point that I want to make in that instance was that we should be cautious, I believe, in terms of using our limited resources for actually providing medical care. We should use these resources more for educating health personnel, in the United States and abroad and for carrying out research and development programs aimed at improving our capability and their capability for delivering health care.

There should be caution with respect to trying to develop answers to specific problems. Occasionally, answers are highly useful, as in developing a new vaccine. But generally speaking, the problems are too complex to yield to single answers or to short term solutions.

The larger need is to develop a capability for working on those problems, for pursuing those problems over the long term. This means the capability for research and for education both here and abroad on these problems.

It is clearly not a matter of using our current knowledge to show individuals from those countries how to do it. We do not know how to do much of what needs to be done. We have some expertise and considerable potential for dealing with these problems. The response of our own medical profession to the current health crisis in the country is an example of the way in which this country can bring its medical resources to bear on a highly complicated set of problems.

The complexity of this task cannot be underestimated. It will require substantial resources applied over long periods of time in the hands of people who have career possibilities of developing experience, insights and wisdom in these worldwide problems. I am suggesting then, that there be a career structure within which people in this country can devote themselves to problems of health care, health problems, and health care of less-developed countries. Part of the importance of a core of career health personnel is that these individuals can gain confidence with those with whom we would be working abroad.

There is the further need to develop teams of experts from different disciplines who can work on these problems. In a less developed country where they are facing the complex problems of improving their health care system, they will have short-term needs for expertise, in systems analysis, cost analysis, planning, evaluation, and so forth. We should have teams of experts who could go to those countries and provide that kind of assistance on a short term or even a somewhat longer term basis.

As part of this assisting effort there is need for developing university programs in this country and abroad, for training persons from both this country and less-developed countries in this field. There should be relationships between institutions in the United States and institutions abroad which are attempting to develop research programs on health care delivery and educational programs for health personnel.

For example, there is currently a linkage between UCLA and an experimental program in Ghana supported by AID.

Senator HUGHES. What is the linkage?

Dr. BRYANT. There is a rural experimental health care delivery program in Ghana. The School of Public Health at UCLA is providing specific technical support in the development of that research program. The relationship between those two institutions is supported by AID.

Dr. Taylor will describe an example of another relationship between Johns Hopkins and a program in northwestern India.

Senator HUGHES. The support is funded by AID?

Dr. BRYANT. Yes.

Senator HUGHES. Thank you.

Dr. BRYANT. Next, there need to be innovative ways of dispersing knowledge about the successful innovation in one part of less developed countries to others, and between the less developed countries and the United States.

In closing, let me mention two cautions. One caution has to do with the limited transferability of some aspects of our health care technology to the less developed countries. We have some highly sophisticated hardware-oriented approaches to health care. Economic limitations simply will not permit transfer of some of these technological approaches from the United States to less developed countries.

Senator HUGHES. Are you talking about something like a kidney transplant?

Dr. BRYANT. That would be one example. Another would be the multiphasic screening systems, which Kaiser Permanente uses. This could not be transferred within the resources available to most of the less developed countries. What is applicable, however, is the creative thinking that went into the development of those systems. Our potential capability for adapting modern biomedical and management technology to the problems of less developed countries is, I would say, our most important asset.

Finally, it is important to recognize that the contributions we make, must be made in the context of the needs as the people in those countries see them, in terms of their priorities and the roles they will play in the change process.

Let me use a personal example drawn from my 5 years in Asia, where I was working with the Rockefeller Foundation with a group of Thais in developing medical education and health care delivery programs.

At the end of 5 years, we analyzed our successes and failures and came up with some rather simple but important criteria relating to success or failure.

First, we succeeded in assisting them only with those problems that they thought were important. If we thought the problems were important, but they did not, we had little chance of being effective in assistance.

Second, they had to want our assistance. It was not enough that they recognized the problem as being important and we recognized it as being important. They had to want our help.

Third, there had to be strong local leadership devoted to that particular problem.

Finally, even though those other three elements might be present, the effort could still be defeated by social, political, and cultural obstacles. Thank you.

Senator HUGHES. Before Dr. Taylor begins, I will take a moment. We were talking about the leadership. I was wondering if your experience has led you to believe that total political cooperation is required in order to insure the success of health programs?

Dr. BRYANT. I would say that virtually every effort to assist less developed countries in taking steps toward improvements in their approaches to handling health problems will have a political element to it. Sometimes, the politics will be local. In a village, in a State, or in a university it can occur. Sometimes it will appear at a national level. Always it must be taken into account.

Senator HUGHES. Dr. Taylor?

Dr. TAYLOR. Thank you, Senator.

I will start by identifying myself, also.

I am here representing the National Council for International Health, which is a new body which has just been formed this year. It is sponsored by the American Medical Association and the American Hospital Association, the American Nurses Association and the American Public Health Association and so on, 10 of the major professional groups in this country, and also the church mission bodies and foundations, and working very closely with the Government representatives in this area.

Senator HUGHES. I wonder if you might file with us a statement setting forth the intents and goals of the organization. I had not been aware of this organization.

(The information referred to follows:)

--- A NATIONAL COUNCIL FOR INTERNATIONAL HEALTH (Appendix II)

The National Council will be formed by joint sponsorship of organizations with major activities in international health. It is defined as a core group of limited number made up of individuals of recognized competence in international health and related areas, representing the principal agencies and disciplines contributing to the field, and meeting regularly to provide a source of informed opinion, composite judgment, and guides to policy development concerning any problem within its sphere of interest. *Its primary mission will be to influence change* by dealing specifically with issues which are most important at any given time. Its roles will include planning, handling information, providing guidance, assisting with coordination, and generally promoting the interests of international health. Its membership will include representatives of the sponsoring organizations, ex-officio members from agencies of government, and general members chosen for their individual competence in other fields of health and those related to it. The National Council will require continuous staff support.

--- A GENERAL ASSEMBLY OF INTERNATIONAL HEALTH AGENCIES (Appendix III)

This organization will be formed by the National Council which will develop its structure, criteria for membership, and organizational policy. In general, it is conceived as a regular meeting place for all agencies involved in or related to international health. Categories of membership may be developed to accommodate various degrees of involvement in international activities or willingness of organizations to provide support to the Assembly. Those organizations with substantial activity and major interest might be allowed to name official delegates to the Executive Committee of the Assembly and be required to pay certain dues. Another category of membership might be provided to those organizations which would realize benefit from participation in the programs of the Assembly, but which did not meet the requirements for, or wish to have full membership. Meetings of this body should include executive sessions and general plenary sessions for the conduct of its business, but also a general conference for the presentation of original papers.

This proposal calls for the establishment of two interdependent and mutually supportive bodies, each of which needs an audience for its opinions, and an action group to carry them out.

--- The General Assembly would provide the National Council:

(1) a basis for consensus; (2) a source for collection of information; (3) channels for distribution of information; (4) an audience for its opinion; and (5) potential groups to carry out activities which it recommends.

--- The National Council would provide for the General Assembly:

(1) a composite source of broad informed opinion; (2) a responsible continuous base of action to promote policies determined by general agreement; and (3) management of a central clearinghouse for information.

RECOMMENDATIONS

The Task Force recommends that:

1. the National Council for International Health be formed at the earliest possible time;
2. the Task Force for International Health remain in existence to effect formation of the National Council by negotiation with the proposed initial sponsoring organizations:
 - Association of American Medical Colleges
 - Association of Schools of Public Health
 - American Medical Association
 - American Public Health Association
 - National Medical Association
 - Christian Medical Council of National Council of Churches
 - A major Foundation
3. organizational sponsorship be subject to expansion or change as appropriate and agreeable to the National Council and General Assembly (vide infra);
4. the National Council for International Health be made up of individuals representing sponsoring organizations, agencies of government ex-officio, and general members, chosen to represent other health fields and related disciplines;
5. the functions of the National Council be to bring together the many and diverse interests in international health, but that it not conduct operational programs of its own;
6. the National Council plan and develop a General Assembly of International Health Agencies;
7. the American Medical Association provide administrative staff and office facilities for the National Council for International Health during the initial three years of its operation; but that at the end of that time, the matter of support for these functions of the National Council be reviewed;
8. each organization provide support to its individual representative for expenses incurred in carrying out activities of the National Council;
9. this Report of the Task Force be provided to the National Council as a working document; and
10. as soon as the National Council is formed, the Task Force be discharged.

Dr. TAYLOR. It is a new group started this year, concerned about health programs and problems they have had in international activity, and also an increasing awareness of our need for coordination in what the United States is trying to do overseas.

I am not going to go into additional background information, because I think it is important we have a chance to exchange questions and answers. I would like to make this all very specific in terms of one example of this sort of activity and show some slides which will bring to a level of reality some of the general problems that Dr. Bryant has been talking about.

The pictures that I will show are of a project in the Punjab in North India, in an area where I grew up. I went out originally in 1947 to work in a mission set up there at the Christian Medical College. At this time, we started the first teaching health centers to develop rural health medical education in that part of the world, and over the years we have concentrated particularly on this whole matter of rural medical education and changing the orientation of physicians.

This whole process, then, led in 1961 to developing a rural health research center at this village. I wonder if we could have a slide with the lights off. We will show the development of a project specifically oriented toward providing the sort of care that Dr. Bryant was talking about.

This is the Grand Trunk Road of Kipling fame going from Delhi to Ludhiana, the village I will be speaking of. About 16 miles south of Ludhiana City, we come to the village of Narauqwal.

We started there in 1961, our family going out to actually live in the village just to show that if you are going to do this sort of work, it is like psychoanalysis, you have to go through it yourself. That was the house that we finally found for my family to live in.

There is my wife, slightly horrified at a sick buffalo in what became our living room, and this was the kitchen when she first saw it. At that time it was a little hard for her to see how an American family could live under these conditions. The old lady promised to throw in the pots and pans that went with the kitchen. We used very simple methods of exchange, very little money, to pay to tightly close off the floor and the walls from the numerous rats, using village laborers. We finally came up with a house that had many of the qualities of a modern ranchhouse.

There is a group of young doctors. In the back corner you will see our hot water system. And 15 minutes after building a little fire in this hole, we had a tank full of hot water for our shower.

This was what the kitchen looked like after my wife had used her ingenuity to improve it. This was the living room where the buffalo had been, and all of this was done with very simple village materials: village basketmakers made the chairs, and so forth. This is the teaching health center at Narangwal, built by a local man who had grown up in this village of 1,300 people, had gone to east Africa, had made a fortune exporting mahogany to Europe, and as a memorial to his son put up the hospital in Narangwal.

One of my friends, on seeing this picture, said, "That is your psychiatrist going on a house call."

Actually, it is a "breaking up" of an eye camp, which is an occasion where surgeons would come in and do several hundred eye operations.

We had conferences with the idea that the Government was being asked to interpret the findings.

This is Professor Swampi, probably the most distinguished scientist in India. An early morning shot shows here the fact that we make these city professors live right out in tents for several days while they themselves experienced the environment of the village, at the same time talking about practical research findings taken directly from the villagers.

A great deal of effort has gone into collecting data. There is one of our interviewers on the left talking to a village family. The important thing that we have been doing in addition to the actual research is to develop an innovative health care system.

Now, this is the Government primary health center on a cold morning in the north of India. The doctor has moved his table out to the courtyard and you can see the sorts of things that Dr. Bryant was talking about, the patients lined up.

This is an indigenous practitioner, one of the practitioners of medicine, the traditional form of medicine which is there, has been there for centuries.

There are thousands of these people scattered through the villages. They provide a system of medical care which is derived from the old herbal medicines, but they learn quickly, and he has learned that it is better for his prestige to put a stethoscope on. He calls it his telescope, rather than a stethoscope. I have seen these people go through a chest examination without bothering to put the ear pieces in their ears; it is a gesture more than anything else.

This particular man is very wealthy. He made his own living on penicillin injections. He would fill a large syringe with penicillin and wave the needle through a pan of dirty water, between shots. The results were quick and effective. This is part of a tubectomy camp. It is part of the mass sterilization program that has been so important in India's family planning program.

One of the most important developments of the work at Narangwal has been our development of a pattern of care of the type that Jack Bryant has been talking about where we have used auxiliaries and called them family health workers to get down to the village level, because our conviction is that you must bring the service to the home; and there is one of our family health workers making her rounds. She spends half of her time in the homes and the other half of the time in the center. We get them to teach care by the example of their own practices. The first thing they do when they go into a home is to ask for the pump and go and wash their hands.

After that they start the combined process of care, concentrating in this research project on the integration of maternal care, child care, and family planning, because we consider this the most exciting challenge in bringing services to the village people.

This is part of a morbidity survey of the children. We find the important thing is to learn how to find conditions early, in the home, because so often the ones who most need care are the ones who are not able to go to get care.

When these girls, who are very close to the village situation, make their regular rounds, in each of the homes, every baby is weighed every month, and then the information is recorded on a chart of this kind,

originally developed by Mr. Morley, where you can see the parallel lines above, the weight that the baby should be, and this baby is now falling considerably below that level, and leaving this card with the mother proves to be our most effective health educational device.

Then they provide simple medical care. One of the most important things that we have had to do is to break the tradition of the medical profession that only doctors should provide medical care, and as we went deliberately at the process of looking at each of the tasks to be done in terms of which can be most easily routinized, and then those are the ones that should be turned over to auxiliary people, we were able to show that medical care is the most simple of all of the health functions to routinize.

These girls are now providing 90 percent of all of the medical care in these villages (simple putting in of ear drops here). Most of the care that the people need is at a very simple level if provided early enough.

There is one other thing I would like to point out in the picture and that is the man of the house working in the background at his trade of shoemaking. To me, the message is that these girls have become so much accepted as a part of the family that the man goes ahead with his work while the health workers comes in and out of the home.

This is a case of neonatal tetanus. When we started our work, neonatal tetanus was never reported as a cause of death. These babies die at 8 days of age, because cow dung is applied to the umbilical cord. We found this was the fourth cause of death in all Punjab villages, and it had been completely unknown up to that time. As far as the village people were concerned, this was caused by the intrusion of an evil spirit.

We found this a very important cause of death, but which is very easily controlled and prevented. This is one of the feeding centers that we developed. The village provided the house, but only on the basis of the weighing program. We don't try to feed all children. We only feed those children who need the help, and we take village girls such as these two girls and put them in charge of the health center.

They work under the supervision of our family health workers, and we use simple equipment, but equipment that is kept clean and sanitary, although when it gets to the child, as they sit around on the floor, around the health center, you can see that the handling, the feeding, is done in the very simple village way, and it is usually the older siblings that bring the smaller children.

We do it because in this way we can also give some food to the older children, also. This is the subcenter that has been put up by the village, and we have done this in order to insure village cooperation.

They are made responsible not only for providing the facilities but also for providing the food for the feeding centers. We find that more and more we can get the village farmers at the time of harvest to put up the bulk of the food necessary to run the feeding program.

This is a family health worker in her subcenter. On the middle shelf there are drugs that the family health workers can use; on the top shelf are drugs reserved for the doctor, when he comes on a weekly visit. The lady to the right is a village indigenous midwife, and these girls have developed close relationships with the indigenous midwives working as partners to bring care to the women.

They use simple methods. Another very simple test for the endema that goes with toxemia is just to see if the lady's ring will come off her finger, because a simple test of this kind brings sophisticated care to the village level.

Here she is getting ready to give a shot of antitetanus immunization to the mother, which is one of the main means of preventing the neonatal tetanus, that and changing the delivery services as provided by the village midwife.

This is the doctor coming on the weekly visit to see the patients who have been referred to her by the family health worker, and by doing this sort of a systematic team relationship, as you can see in this picture, we begin to develop a pattern of work that can in fact reach all of the villagers.

The primary health center in India has to serve a hundred thousand people. There will be two doctors in that primary health center. The only way that one can get any kind of service, family planning, for health or anything else, out to the village people is through the auxiliary team, so that at the present time this team of two doctors has to supervise something like 60 other health personnel in order to begin to provide the services.

As we develop the pattern that we are now developing here, or have developed here, it requires a considerable expansion of the auxiliary training programs. This we find to be very politically important in India, because one of their greatest problems in the cities, as in many developing countries are the large numbers of educated, unemployed youth. Services of this kind are necessarily labor intensive, and they take the educated youth out where they can themselves get involved in providing care for the people.

This is part of the family planning program. Again, it is built in completely with the child care and maternal care. In fact, we have now defined what we call 30 entry points for family planning in routine health services, 16 associated with maternal care and 14 with child care.

These are routine teams our family health workers have built into the system, into their forms, into everything else they do, the requirement of bringing family planning, education and services to the women.

This is part of the prenatal care. We find that a very simple test for whether a woman is going to have trouble at the time of delivery is her height, and so you see just by making a mark on the mud wall and taking the tape measure out of the bag, the family health worker has a very clear indication of height.

Just before the delivery, the family health worker makes a visit to the home. We have tried not to take the delivery services away from the midwives in the villages. We find they are already very close to the families, and that they are educable, even though most of them are not literate, and here they go through the process. They even get out the pots and pans that are going to be used for boiling of the water and get the necessary clothing together.

If there is a complication found in the prenatal care, the doctor is called in and necessary provisions are made for referral, but basically the whole system is built on the idea that activities should be delegated down as much as possible with main emphasis, then, on supervision

and screening to get those cases really needing care referred on up to where they can get care most effectively.

This is a premature baby. Dr. Barnes, who has been in charge of this project, has been professor of obstetrics. He says the results we now get go with simple things such as using a piece of cotton to feed these babies, who are too weak to suck normally. The results that we are getting are very close to what they get in the most sophisticated premature nurseries with all the incubators and so on, but based largely on the fact that the care is being provided by a mother who really cares and will provide all the detailed day-to-day work that is necessary.

This is one of our doctors who is just getting a referral note on an emergency. It is brought in by a man on a bicycle in this instance. We have also developed a whole system of carrier pigeons. Each girl now has a couple of pigeons in a cage, and when she needs help she sends off a pigeon.

It works except for deliveries that occur at night. There has been some talk of training a night shift of owls, or bats or something, but we haven't got to that yet.

This is the doctor, after he gets to the village making the emergency call. This is the public health nurse going out on her weekly supervisory visit, and a laboratory technician called in, again with the idea that we are trying to simplify technology and bring this down to the village level in a way that works.

We have a weekly meeting where we bring all the girl workers from the village to the central health center. Here they collect their supplies of medicine and food. We teach them, in the process, the dignity of human labor. Then they have a full day of classes, at which they run most of the sessions. They teach each other from their own experiences as they continue their work.

I show this picture because one of the most important things that has come out of this whole research program is the very practical research program, this synergism between family planning services and health care.

We find there are many reasons why family planning services are most effective when they are combined with health care, especially the fact that you can't expect parents to stop having babies until they have assurances the babies they already have are going to survive.

Conversely, we can't do very much about bringing better health to these children until we do something about the situation you see. You can see the problem the mother has in cooking. The reason why we have problem families in the village related to family size and short spacing between births is just the simple matter that the women do not have time to provide adequate mother care to these children under the very limited conditions under which they have to live.

In this picture you see one of our family health workers talking to the Secretary of Health and Family Planning of India, and who is the head of the whole national program for health and family planning. He came to our village on one of our annual conferences. He came into this experience with a very skeptical attitude.

He had seen a lot of other programs which had been good, and he really queried our girls to see if they were safe in the first place, at this

business of providing care. First of all, he was horrified by the way our girls stood up to them (the officials) and talked back to them. This is not the sort of thing a young girl does to a senior official in India.

But the picture shows the confidence the girls have developed out of this experience. To me it illustrates the message of who is the most important person in this kind of program, the auxiliary. They are the ones who are going to be able to bring services to the people.

With that I will close these comments and be delighted to answer questions as to how we can really begin to carry this sort of a message around the world.

Senator HUGHES. Thank you very much, Dr. Taylor. I appreciate the statements of both you gentlemen. Dr. Taylor, how many years did you spend in India?

Dr. TAYLOR. Having been born in India, I got a good start, speaking several of the languages of North India. All together, I think I spent more of half my life in the developing countries.

Senator HUGHES. Is this particular program still church supported?

Dr. TAYLOR. No, this has been an AID-supported program now since 1961.

Senator HUGHES. Could I direct a few questions jointly to both of you? Could you give us some idea of the number of people in the world who have no access to health care at all? Is there any way at all that we can estimate that?

Dr. TAYLOR. First of all, I think we can distinguish between no health care at all, and modern health care. There is a spectrum, running from the indigenous systems of care which are there, and which they are used to, and which they value very highly, and we have to be careful how we go about the feeling that there is a vacuum of health care.

There is not a vacuum. Obviously their systems have not been working or we would not have had the situation where half of all children being born died. I would roughly say that in about two-thirds of the world are situations where the people don't have any access to modern health care.

Would you come up with different figures?

Dr. BRYANT. In some specific instances in which we have data the number falls below ten percent. In others it would reach 50 percent. In still others, I think Dr. Taylor's figure would hold. Don't forget, however, that even those people who are in contact with modern health care don't necessarily benefit from it.

Senator HUGHES. Your testimony indicated a lot of statistical information, but just to put it in general categories, is there a significant difference in health care in the urban areas and the rural areas?

Dr. TAYLOR. Very definitely. Well, the situation in India to be very specific has been that 85 percent of the population are in rural areas, but about 85 percent of the doctors are in urban areas, and that very simple statistic shows disparity in the care provided.

The same things hold with hospital beds and all the other measurements.

Dr. BRYANT. In one or two African countries, we have data to suggest that infant mortality in the larger cities is roughly half what it is in the more rural areas, which would be a reflection of more access to better health care in urban settings.

Senator HUGHES. Dr. Taylor, you obviously have a cost analysis of that sort of program. Have you been able to project that beyond a single program?

Dr. TAYLOR. Yes, we have spent a lot of time worrying about whether this type of activity is feasible and on a nationwide scale. We are still in the middle of the research, and one thing we have to be careful to do is separate the service component from the research component.

Senator HUGHES. I suppose you would want to separate all of it, including the training?

Dr. TAYLOR. Yes; we estimate half of the time of these girls is going into research and data gathering. Therefore, when we begin to do our analyses, we come to the view that perhaps the most important immediate constraint is the manpower constraint rather than the money constraint.

That is true especially because of the important element of family planning in this particular activity. There really seems to be no limit from the point of view of the Indian Government on the amount of money they are willing to put into providing family planning services.

The Indian Government has been doing family planning since 1952 when it became part of their national policy, and they have always said that as soon as they can find effective ways of spending their money on family planning, they are willing to put as much as it takes into it.

So that the money resources has not been the immediate one in terms of this sort of a village expansion. The manpower resources is very real, and there we run into the very serious problem of the necessity of training this kind of personnel.

We estimate that we need 300,000 of the type of girls that you saw pictures of.

Senator HUGHES. Might I ask why you are using all women?

Dr. TAYLOR. That is a very valid question, because family planning is certainly a male responsibility, especially in a country such as India. Here, where you have the very important role of men in the family and so on, I showed pictures of the women, perhaps partly at least because they are more photogenic, but we do have men workers who are in parallel working with the men.

The particular emphasis that I was trying to get across was the package, a combination of family planning with the MCH activities which fit in more with the women's role.

The men are more involved in the other aspects of family planning and population activities which relate to an education type of activity. They get involved in all the other development activities. I think we have said too little in the presentation so far about the importance of tying this in with economic development, with education, with all of the communication problems and so on.

This is where we find that our men workers more naturally fit into the national program. To get back to the original question, on a cost accounting basis we have come up with various estimates at the present time in money terms which involve very probably programs two or three times in terms of increase what the government is spending in terms of providing this expanded service.

It is not as much as the village families themselves spend on the indigenous practitioners, and as I said, we have come to the conclusion that the really important constraint is training programs and the idea, the health system that we can get in the reorganization and the management activities in order to make this sort of thing work.

Senator HUGHES. How many years has this project been in operation?

Dr. TAYLOR. We have had a series of projects there at Narangwal. The first was a study of the rural orientation of physicians. Then in 1965 we started three projects simultaneously which are still running. One of them is this study of integration of health and family planning.

The second is on malnutrition and infections. Third is an overall operations research systems analysis approach to the problems.

Senator HUGHES. What effect have you had on the birth rate in that village in your 5 years of programming?

Dr. TAYLOR. This is still under very careful review. One of the reasons why I am not rushed into giving you a clear answer on this is that it has taken us about 3 of those years, those 5 years, just to develop a program, so that the program has only been in place now for less than 2 years.

During that time, we have been experiencing a general drop in the birth rate in the Punjab. Ten years ago, it was around 40 per thousand. At the present time, it is below 32 per thousand. But it has gone down not only in studied villages that we are in, but it is also going down in the villages around us, and we are not yet clear how much better our villages are than the other villages.

What we do know is that the government's family planning program is having a significant effect, and on top of that, the special integrated services that we are providing have been having a significant effect.

The real important question that lies before us now in India is how do we go from the demonstration project of this kind in the most rapidly developing part of India where we started our work deliberately, because it was important to be able to show at least one success story in family planning in India, to the next stage, which is to take it to the poorest districts in India and see how it works there, and I am afraid I can't go much beyond that, except to say that the birth rates are dropping.

Senator HUGHES. What about the child mortality rate? Is that dropping also?

Dr. TAYLOR. The child mortality rate is dropping dramatically and even more importantly, we are showing developments in child growth and development in the children who are in our program, and associated with that, of course, we are seeing a fascinating impact on the attitudes of the people, and I have become particularly interested in this question of what health does to attitudes.

Attitudes toward development, for example. One of the things we are trying to measure is the impact on economic development when you go in with health and family planning services as a sort of an entry wedge of development, because it begins to change the attitudes of the people toward the future.

If they are now living for 40 or 50 years rather than 28 years, and if their children are living, they have something to plan for to live for, and therefore you begin to see this sort of a reaction toward

development motivation among the people, and even more important, the thing that we are now beginning to measure is the way that this matter of the survival of the children and demonstrating to the village people that their children are not only surviving, but they are getting care and therefore they don't have to worry about their survival is beginning to produce a measurable change in the attitude of the family as it results to the acceptance of family planning.

It is at that crucial motivational level that we feel our most important research is going to be done.

Senator HUGHES. I am going to go to Senator Javits, because I know he is under dual obligations here. But I do want to ask this question regarding your statistical information describing diseases. I can't begin to recall the names of them. How many hundred million people were afflicted by the parasitic disease caused by snails?

Was it 700 million? Do you recall?

Dr. BRYANT. 200 million.

Senator HUGHES. What are the two or three most prevalent diseases in the underdeveloped countries in the world?

You listed the diseases.

Dr. BRYANT. The leading causes of death and disability among children are diarrheal disease, respiratory infection, and malnutrition, the same diseases we suffered from in the United States a few decades ago.

Then we can list other diseases that are widely prevalent, some of which will be highly prevalent in a particular country such as schistosomiasis in Egypt. Middle Africa is still afflicted by malaria. I don't know if this helps to answer the question.

Senator HUGHES. Well, yes, it begins to. This ties in with the so-called delivery services, the training and everything else which exists in a developing country. If we were trying to pinpoint what can most effectively be done in this, then where is the focal point here?

If there is one, that is.

Dr. BRYANT. There are a number of diseases that we are having difficulty in managing in these countries, but some of that difficulty is a reflection of the lack of basic health services.

Family planning provides an example. A number of diseases arise from the fact of large and closely spaced families, and to bring family planning services to those people requires an established basic health service that reaches into the communities in which the people have confidence.

Similarly with malaria. Some efforts to control malaria have failed or not done well, largely because there is not a health service to build on. If I had to identify a specific focus for you, it would be the importance of developing basic health services to reach throughout a country.

That calls for two subsidiary goals. One is the design of health care systems, and the other is the education and health personnel.

Senator HUGHES. Senator Javits?

Senator JAVITS. Mr. Chairman, I have just 5 minutes, so I would beg the witnesses to indulge me, if they would be kind enough to answer what I will put before them in writing.

I think the main point that I have is addressed to Dr. Bryant. The basic question that I would ask, gentlemen, is what ought to be the mix in order to achieve what he has in mind?

For example, when I speak of a mix we have a U.S. effort which is in the form of AID support assistance and that which we give to given countries through supporting economic and military effort. This includes Korea, Vietnam, and so on.

So that would be one type of means, and they have done a great deal. We go back to the 1920's or 1930's, for example, in joint ventures with Latin American governments in what were called then "Sanitary Agreements" with relation to health care in given Latin American countries.

The second branch of our activities is our contributions to international organizations, like the World Health Organization and others. The third contribution which we make is both Federal and—that is, U.S. governmental—and international, a contribution to environmental projects and how that effects the medical situation. Because instead of trying to cure all the people with dysentery, you clean up a stream, and that perhaps is a more rational approach on the basis of cost benefit ratio.

The fourth is the action of individual foundations like the Rockefeller Foundation, the work at Lambarane, for example, that Schweitzer is so identified with in the world.

The activities of the good ship HOPE which many Americans support, and in addition, there is my bill which seeks to establish an agency in the United States for the purpose of giving us the best guidance, really, in how to move into this field of international health care, an International Health Agency, which has a very broad mandate, and hardly any restrictions at all.

I think it would be extremely valuable, gentlemen, if we could get from you what should be the mix of the U.S. effort, public and private, in order to accomplish precisely what Dr. Bryant and Dr. Taylor testified to. Let us assume we would accept the idea of a CARE through indigenous means, stimulated by research and the training of indigenous or our own national personnel, or other nationals, and regional research and specialization in local problems not excluding, for example, the concept of China's barefoot doctors, medical assistants, et cetera, all of the techniques which have been developed, including then even the Russian felsher system.

But we need to know the mix that you think our Government ought to back. We do a good deal already, and we are part of the Government. We are going to have to legislate. In order to do that, we need to know from you what you recommend in the way of these various needs.

Senator HUGHES. Would the Senator yield?

Senator JAVITS. I do.

Senator HUGHES. I would like to ask the Senator to include in that request what the opinions are of what we are presently doing that is wrong, in as candid a fashion as possible. I am sure you have observed mistakes in what we are doing. We do want to try to eliminate our mistakes as well as to instruct.

You gentlemen understand that this is a written request? It was quite a mouthful.

Senator JAVITS. It is best I can do under the circumstances. If the Chair wishes to continue the hearing and you gentlemen are available, I will come back.

Senator HUGHES. It won't be going that long. I may add additional requests. Thank you, Senator Javits.

I would like to directly ask some questions on population control. Either of you may answer. These questions relate to our policies. For example, what is your opinion of our emphasis on population control in developing countries? Do the developing countries accept it? How do they feel about population control plans?

I am sure that varies from country to country.

Dr. TAYLOR. I think that the important consideration is the tremendous variation region by region in this matter.

I again go back to the example of India. They were in the population business long even before we were. I started working in population work in India in 1947, and then as I saw their own interest in this area develop, I was particularly conscious of the very embarrassing situation we were in in the U.S. assistance program, because for about 10 years we kept saying no when they asked for help in the population area.

Then as our own awareness of the magnitude of the problem around the world began to increase and we got involved and provided assistance in the population area. One of the important issues that I think needs to be recognized in countries such as India because this population issue has become rather sensitive politically, has been that unfortunately there was a decrease in our involvement in health programs as there was an increase in our involvement in population programs.

Senator HUGHES. Excuse me. I was not aware of that. Perhaps it is my own fault. I have not been aware that our policies have resulted in a comparable decrease in the other health programs as we increase the population programs.

Dr. TAYLOR. This is something that we need to look at very carefully, because it can be seriously misinterpreted, and I don't want to have it sound as though I am against any increase in population, because I have been so much involved in that.

But the fact of the matter is that this is related more to the total amount of assistance offered through AID, the total dollars provided in AID. That has been progressively restricted over that period of time.

And then, in the decisions as to what those limited dollars are going to be allocated to, there was a specific earmarking of funds for population.

In terms of the other areas of interest, there was no such earmarking, and there was a very proper major increase in agriculture during this time, and I say that it is more because of the other priorities that the attention to health had diminished over this period of—well, I would say the last 5 years particularly—and this shift has been misinterpreted, unfortunately, in a number of countries.

We have a situation, for instance, in Africa where there is a very acute political situation because they have begun to talk in the same kind of genocide terms that we find in the U.S. ghetto situation, and very great sensitivity about foreigners coming in and trying to limit the numbers of people.

In Latin America we have a similar very delicate political problem with population work, and what this all again means to me is that it has

become absolutely crucial around the world that populations are fitted in with a general development program, and especially that it be fitted in then with a health program.

One of the things that does happen in certain places is that you can go in with a sort of catch up phenomenon in bringing population work into a situation where they have not had any, and there are places where the one thing they wanted most help on has been in population, and certainly there it has been absolutely appropriate to move ahead with an intensive population program in Taiwan, Korea, and some of the other situations.

Those are classic examples of that need. We really have a lot of catching up to do in the population area, and I am afraid I must answer your question both ways. There are places where it is appropriate to place the primary stress on population and there are other places where it has to be put in balance with other health activities, and with other development activities.

Senator HUGHES. As you know, gentlemen, in these hearings we are attempting to build testimony on how to design legislation that will produce the results that you are describing. I think you are doing an excellent job. At some point in the legislative process a decision will have to be made whether there is one thing or several things to be done. I believe that whatever is done must take into account the cultural and religious problems of the nation with which we are dealing.

This is a delicate matter but we still have to develop some sort of structure and program.

Dr. BRYANT. I would like to react to that, Senator. Problems vary from country to country and problems in a country vary from time to time. It seems to me that it is imperative to have a flexible approach to this problem wherein the people who work in the field, together with the people of the country, can look at their local situation and say, "where do we stand with respect to our health needs and our health system? In this particular setting, what needs to be done next in order to improve the health of this population and contribute to the development of this country?"

The answers to that question will be different from place to place and from time to time. When categorical programs are developed and made the sole channels of support, it not only makes it difficult to meet the foremost needs of a country, but also puts those that are trying to assist those countries in the awkward position of having to follow categorical programs that are not necessarily acceptable locally.

Senator HUGHES. Plus an ingredient which I thought you included very accurately, the fact that these countries not only want, but should have the right to make determinations of what they want done.

You have described it very well. The structure we provide must have latitude and flexibility in it. I think that is going to be technically difficult for us. And perhaps it will be difficult to sell to Congress.

But that does not mean that it is impossible or that it should not be done. Dr. Bryant, as you were describing the activities of the health center, I got the impression that you were talking more about a concept of health delivery than of a building. Am I correct to say that it may or may not be a building?

Dr. BRYANT. A health center is usually a building, but we would like to think in terms of a local health care delivery system. The important thing is that the system reach into the communities, that there be shelters that are accessible to the people who have confidence in the care they will receive. A health center building will often be at the center of this activity, and outlying buildings or village huts, will be called sub-centers or health posts.

Senator HUGHES. Another point I am trying to develop for legislative history and background, is the fact that when we try to develop a program, we must be sure that the developing country can afford such a program. And when we provide assistance in health programs, the question arises as to how long should our contributions continue? In India, you say they are willing to spend money on population control programs?

Can you enlighten me on these questions?

Dr. TAYLOR. This is the sort of thing that we have spent a great deal of time worrying about, because it is such a complicated question we really understand very little about it, about the process of development. We talk about development, but just what is it?

We define it, and in economic terms it becomes very frustrating, because much of the life of the rural communities is not in economic terms, but certainly it has got to be placed in the perspective of their choices in all of this range of things that we know are important, but we don't know which ones, or how important in particular situations.

One of the comments that I would like to make about this whole issue of whether we respond to their decision framework. I think we have to become smarter in our ability to use particular types of assistance programs as educational activities leading to an awareness of the program that they are not even yet conscious of in a particular situation, and I am thinking particularly of the population problem here, because one of our real difficulties in many situations has been that the leaders of these countries are not really aware of how much the population problems looming ahead is an urgent crisis for them, and they are oftentimes way behind the people and the communities in their awareness.

The mothers with the large numbers of children now know that they want to start spacing but the leaders have a great deal of difficulty in seeing this for political, religious, and other reasons there might be in a country.

As we begin to develop some of these services that are acceptable on the local level, things that they want, such as MCH, maternal and child health, that is something that is greatly desired by the people in any situation. Then we can use that as a means of showing the importance of the population problem and begin to develop a combined service out of that relationship over time.

Now, this business of phasing out then, in terms of the local needs is where we really need to begin to apply some of the lessons that we have learned over time, and we are at a situation in India now where they have become resistant to foreign advice. We have got to be extremely careful how we work there, and it is getting worse because of the political issues that we face generally in our assistance programs.

This is happening in many places that these political sensitivities are making it increasingly difficult to carry out some of these programs,

and it may well be that there are places where we will not be welcome with some of our programs.

Dr. BRYANT Senator, I would like to respond to two of the issues that were contained in your last question. One is, Can these countries afford a health care system? and the other is, How long should we be involved?

There are lessons to be taken into account in formulating legislation. First, every country has a health care system, for better or for worse, and one of the challenging things to those of us in this area is how can we help them make the best use of whatever delivery resources they have, whether 30 cents per person per year or 30 dollars. The more scarce the resources, the more careful must be the thinking and concern about how to use them. No country need be excluded because of their limited resources.

A second issue is that of how long should we be involved in a country's problems. Dr. Taylor's history of involvement in India is a splendid example of how long it takes to learn about the problems, to decide what to do about them, to implement programs, to evaluate those programs, and then to begin to try to disperse the knowledge earned there. We should speak in terms of clusters of years. I know this provides legislative difficulty, but long-range planning of involvement is exceedingly important.

Senator HUGHES. As you well realize in all of our health legislation, we never get a program for over 3 years. We wind up with 3 years, because we have difficulty in the House and Senate and conferences in the appropriation of funds.

We can try to write legislation for cluster of years but the practical political prospects for such legislation are not good. I don't want to mislead you.

I want to get a couple of things in the record before I close here today. I am going to submit to you a few important questions that can help us structurally in designing this measure.

First, in your opinion, should there be or can there be a matching requirement from the developing nations?

Dr. TAYLOR. I think there should be.

Senator HUGHES. This could be in dollars, manpower training, an exchange in services, or something?

Dr. TAYLOR. As long as it is kept flexible, I think it is important.

Senator HUGHES. The preservation of dignity almost requires it.

Dr. TAYLOR. This is a good way of finding out whether it is something they want. What one could avoid there is a one to one matching to the same in all countries.

Senator HUGHES. The other thing that I think I got on the record, but I want to ask it again very clearly. In legislating should we avoid trying to dictate what the kinds of projects are going to be conducted?

Should we let the host nations determine what the projects should be?

Dr. BRYANT. I would favor a partnership approach to this matter in which individuals from this country and abroad negotiate with one another toward the identification of problems most important in that particular setting, rather than saying that we should accept without question what the recommendations of another country are, any

more than we should insist that they accept without question what our recommendations are.

Dr. TAYLOR. I just wanted to add to that to keep in mind some long-term goals while we are involved with some short-term activities that will produce this awareness of the long-term need on their part in some instances is a way of handling this partnership negotiation.

It comes out of a working situation oftentimes, rather than just negotiating around in an office in a ministry where things become very artificial.

Senator HUGHES. Let me raise another point. I am in a complete confusion about how to cope with this legislatively. Perhaps there is a way. Can you furnish us information as to what other so-called developed nations are doing around the world?

I am talking now of England, France, Russia, and China. What are they doing, and should this affect our Nation's effort?

If you have that kind of information we should be aware of it. I won't ask you to state it now but I would appreciate it if you would furnish it to the committee. I am assuming as I listen to your testimony this morning, that there are several areas where there would be spin offs that would be beneficial to our own country. As you know we are experiencing population migrations and difficulties in health delivery in the inner cities and the rural areas of this Nation.

I would think we would get a positive benefit from any world health program.

Dr. BRYANT. It is a wide open two way street. Some of the most innovative and constructive ideas that are now being incorporated into our own health care system were born abroad. The use of physicians assistants is 40 years old in Africa. The development of clinics for the under-5-year old children in New York City came out of Nigeria.

Some of the methodology that Carl Taylor is developing, his analytical approach to the roles of health personnel in health care systems, has equal applicability to our situation here.

And new concepts evolving here will be applicable abroad.

Dr. TAYLOR. May I comment on this, because in our research program we are deliberately developing this sort of effect. That is in two areas. One is ideas and the other is people.

In the idea area, I think we can say without any doubt that the innovative developments in the health care in the United States are manifested in the HMO's and so forth have been lifted as concepts from experiences overseas.

Many of these programs were being developed by U.S. individuals, Rockefeller Foundation and others, many years ago, overseas, and the ideas that were started as seeds of trying things out in situations where they were too poor to do anything else, where the lack of money and resources forced them to be thinking in terms of cost effectiveness and efficiency and best use of resources, that innovative thinking, of course, was then built into the whole WHO framework of what should be the basis of health planning around the world, and now has become available as we have become finally aware of the needs of the poor in this country.

We are now able to capitalize on this back and forth flow of ideas, this functional analysis methodology and so forth.

We developed this project in Turkey and India, and we are now engaged in an international comparative study under the World Health Organization sponsorship where these same methods are going to be used in Russia, in Poland, in Yugoslavia, and in the Bureau of Indian Health Services in this country, in a Harlem health center area, and in Louisiana, the same pattern of process of functioning to be filled.

It is useful to get down to the key questions of just what is important to do and how to get it done and what people. The other matter of the exchange of people has been particularly dramatic in our situation, because we have had a program for about 7 years of what we call international health residence.

These are young men who go out for a 2-year residency to work in the international setting where they actually provide services of a research or training type, or they get involved in the organization of health centers.

For awhile we were embarrassed, because these people we thought we were training for the sort of career service that Jack Bryant was talking about were sucked into the vacuum in the United States. We now have our international health residents. More than half of them are serving in the ghettos of the United States, in Watts and Washington and Chicago, and in the Appalachian health centers.

The demand for people that have this sort of practical training and especially the sort of change in orientation that comes in there in their whole approach to health as a process of changing of people in ways much beyond their health conditions is becoming valuable as a training of people that we need right back here.

So what we are now beginning to visualize is people who flow back and forth.

(The information requested by Senator Javits appears on p. 184.)

Senator HUGHES. Of course, you are getting at a concept I wanted to get into in relation to our medical universities.

Dr. TAYLOR. That is right.

Senator HUGHES. I believe we really have to do something about the general practitioner and their orientation. One rural physician who has practiced for 12 years, tells me that 90 percent of the work he does could be done without his having to see the patient, 90 percent of it.

Dr. TAYLOR. That is the same figure we found in Punjab.

Senator HUGHES. That is interesting. This requires a complete re-orientation in our own country as well, doesn't it?

Dr. BRYANT. There is a subtlety that must be not lost in this matter of international relationships—countries look at one another in deciding what is an acceptable change. One obstacle to the broader use of auxiliary personnel, is the perception of the medical professionals in less developed countries of the standards of care in the more developed countries. Many of them have been educated in the west where they learned that only MD's diagnose and prescribe treatment, and when the issue comes up as to why the auxiliaries cannot take care of those 90 percent, there is strong resistance to it.

As we change our patterns of health care in this country, using more nonphysicians to do this work, it will probably support change in less-developed countries.

I would like to make a further point with respect to the roles of universities in changing health care systems. Health care systems are very strongly people dependent.

Health care systems cannot be changed simply by redesigning them. The health personnel who are going to implement the new system require re-education, and the universities play a very important role in that. When the health care system is redesigned but the universities continue to train personnel to do something else, then we have a mismatch. The universities should participate in all major efforts directed toward improving health care.

Senator HUGHES. That was the reason for the tie-in between American universities and foreign universities was so interesting and intriguing to me. I am interested in how it was funded and the nature of the projects. I think more and more that this is essential. I can see the flow back and forth through that pipeline as being as important to us as it is to them.

I think it is crucial that in a program such as this, that the developing nations understand that we are also trying to learn from them.

Gentlemen, I am going to bring this hearing to a close this morning. I do want to thank both of you. Your testimony is invaluable to us as we begin developing concepts and legislation for the future.

This is also a new area of undertaking, or at least a new area of understanding for the common legislator. All of us are going to have to learn in this process.

I think it might be helpful to you if Senator Javits' assistant could transcribe what he said so you can get a clear record of his request.

I would like to ask you if you could respond to what we consider to be critical questions in the legislative process. I also want to express the great appreciation of Senator Javits and myself and other members of the subcommittee for your willingness and your time and effort and your energy in this presentation to us this morning. Your insights based on your experience have been most instructive.

Thank you, very much. The hearing is closed.

(Whereupon, at 12:33, p.m. the special subcommittee recessed, to reconvene at 10 a.m., Wednesday, June 7, 1972.)

The first part of the report deals with the general situation of the country and the progress of the work done during the year. It then goes on to discuss the various departments and the work done in each of them. The report concludes with a summary of the work done and a list of the recommendations made.

The second part of the report deals with the financial statement for the year. It shows the income and expenditure for each department and the total for the year. It also shows the balance sheet at the end of the year and the amount of the reserve fund.

The third part of the report deals with the personnel of the organization. It shows the number of staff employed at the beginning and end of the year and the number of staff who have left the organization during the year. It also shows the salaries and allowances paid to the staff during the year.

The fourth part of the report deals with the work done in the various departments. It shows the number of cases dealt with in each department and the results of the work done. It also shows the number of reports submitted and the number of recommendations made.

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INTERNATIONAL HEALTH PROGRAMS, 1972

WEDNESDAY, JUNE 7, 1972

U.S. SENATE,
SPECIAL SUBCOMMITTEE ON INTERNATIONAL
HEALTH, EDUCATION, AND LABOR PROGRAMS,
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The special subcommittee met, pursuant to notice, at 10:12 a.m., in room 5302, New Senate Office Building, Senator Harold E. Hughes (chairman of the special subcommittee) presiding.

Present: Senator Hughes.

Staff members present: Mary Ellen Miller, professional staff member; and Marvin B. Jones, professional staff member.

Senator HUGHES. The Subcommittee on International Health, Education, and Labor Programs will come to order. The Chair calls Dr. Arthur Sackler, publisher of the Medical Tribune and chairman of the International Task Force on World Health Manpower for the World Health Organization. I want to apologize to you and the other witnesses for being late this morning, but I had some appointments. If you would identify your colleague properly for the record.

STATEMENT OF ARTHUR M. SACKLER, M.D., PUBLISHER OF THE MEDICAL TRIBUNE AND CHAIRMAN OF THE INTERNATIONAL TASK FORCE ON WORLD HEALTH MANPOWER FOR THE WORLD HEALTH ORGANIZATION, ACCOMPANIED BY JOHN T. GRUPENHOFF, PH. D., EXECUTIVE SECRETARY, INTERNATIONAL TASK FORCE ON WORLD HEALTH MANPOWER, WORLD HEALTH ORGANIZATION

Dr. SACKLER. Dr. John Grupenhoff.

Mr. Chairman, I have a rather lengthy statement which I will submit for the record.

Senator HUGHES. It will be entered in the record following your testimony.

Dr. SACKLER. I will summarize.

Senator HUGHES. Very fine.

Dr. SACKLER. I am Arthur M. Sackler, M.D., chairman of the International Task Force on World Health Manpower for the World Health Organization. The task force is an advisory body to, but not an organ of, the WHO. The mission of the task force is to study and stimulate, initiate and evaluate innovative approaches for increasing world health manpower.

Today, after a superpower détente, America and the world confront a gap—a health care gap, a gap more deadly than the missile gap and a gap more dangerous than the credibility gap. Closing the health care gap can contribute to the quality of life today; not tomorrow, not the day after tomorrow.

Closing the health care gap can benefit every citizen of the United States as well as every nation in the world.

For a people with a history of medical missions, the United States has fallen upon sad days. A nation that had been world "creditor" in the field of medical manpower, medical research, and medical care, this country is now a health debtor nation, a "welfare recipient" of unofficial medical "missions" from the poor and less affluent nations of the world.

To staff our own hospitals and institutions, the United States now drains doctors and nurses from the limited, modest, if not impoverished, pool of health manpower of less developed countries.

One of each three residents in U.S. hospitals is trained abroad—and 7,000 residencies remain unfilled.

Also, this Nation presently is losing part of the lead it has had in the field of medical research. The United States today is not first in terms of longevity, but sixth; not first in terms of low infant mortality, but 16th.

The United States cannot long live as an island of relative medical affluence in the ocean of disease and hunger which characterize the developing and poor nations of the world.

At one time it was easy to establish quarantines for smallpox and the plague. Today in the world of jets, we cannot isolate the effects of disease. In an age of transistors, we cannot quarantine the contagion of addiction.

Today in respect to ideas as well as illness, we are truly one world—in which technology is shrinking space and time.

The time is long past when our priorities should be dictated by either hysteria or headlines. The world will not solve the population explosion with the "pill," and control of disease calls for more than capsules of medications.

The average American in middle America has as big a stake in your deliberations here as a resident in schistosomiasis-infected Africa or the diarrheal-infected barrios of Latin America or the slums of South-east Asia. Do we have to wait to repeat the sad experience of the past?

There is no quarantine procedure which can successfully isolate America from all the inflictions plaguing man in other countries.

The lesson of heroin is here for all to see. For millennia marijuana had been used endemically in many areas of the world. It was transplanted to this continent. For generations opium had been endemic in many parts of the world. It was transplanted to this country.

For years heroin plagued the ghettos, but most people shrugged their shoulders and turned their backs—what did that have to do with you and me?

The psychic contagion of heroin first broke through the geographical boundaries of the ghettos where it was originally endemic. It spread to different ethnic groups, different social and economic strata, and in some sections of this country became an epidemic.

The psychic contagion of drugs has now burst through national boundaries in the same way as alcoholism, and, like alcoholism, is threatening to become a pandemic, affecting peoples the world over.

Hopefully, the world will confront a new era in international relations. It will be a phase of multinational cooperation and will extend the principles of coexistence. Health provides a unique opportunity to bridge over the differences and to set new precedents and patterns for a world of peace.

In the area of health, bipartisanship is as practical as it can be promising, and health has many reciprocal interrelationships with the major concerns of this special subcommittee.

As to venereal disease and the sexual revolution, those who think the problem is restricted to the psychic contagion of addiction, the lessons of venereal disease reinforce the message we must bring to all peoples. Success after success greeted the researchers and practicing physicians as venereal disease was wiped out in section after section.

But while man tends to rest on his laurels, the spirochete and gonococcus do not. We today confront the worst epidemic of venereal disease in 50 years. This is not a local manifestation. As so many different aspects of disease, it is a worldwide phenomenon.

I bring these matters up because I think that every American, every parent, and all our youth have a stake, a very personal stake in those issues which constitute the domain of world health.

Our stake in world health goes beyond the area of what some may call social diseases—such as addiction and venereal infection. There is virtually no disease of either impoverishment or ignorance or underdevelopment from which this country is exempt.

Likewise, despite the difference in our social systems and despite the differences of the state of industrial development, there is virtually no experiment in health care distribution which does not have applicability in some measure to this country as well as virtually every major country in the world, and I believe the testimony brought forth yesterday before this subcommittee bore on this point.

The problems of adequacy of health manpower, of the efficiency in their use and of the distribution of their services are problems that are a common denominator which we share with nations as big as China and Russia and those as small as Israel and Venezuela.

Most acute diseases are soluble—the commonest, acute problems of world health are easily soluble today. They do not depend upon great breakthroughs in science or technology—they depend upon simple organization and fiscal measures.

The enlightened self-interest of this country can stimulate others to a higher commitment. The cost in budgetary terms is modest to the point of being fiscally inconsequential in the totality of national economics. Compared to the effort to place a man on the moon, compared to the ingenuity, the technical unknowns, the numbers of men and the billions involved, we speak of something so simple that no one could characterize it as child's play.

An international effort in the field of world health compared to the space effort has the stakes completely and totally reversed.

The stakes are higher—the cost low. The world can win healthy lives for hundreds of millions; the United States can earn not only

scientific but human credibility at a cost that would be a pittance even if it were compared to the price of a single booster rocket.

The exploration of the moon stands as a "skymark" of man's achievement, even as we wait for some fallout of this incredible technical breakthrough to reach you and me and the man in the street.

A growing commitment on the part of the United States to world health can achieve miracles in freedom—freedom from death and disease. The cost would be a pittance compared to a small contract overrun.

Isn't it about time for us to stand back and look at ourselves? We are supposed to be homo sapiens, thinking men. In 1971, the total budget for the World Health Organizations was \$73 million of which the United States, I am proud to say, contributed nearly one-third.

Another 134 nations also contribute. What is this total WHO budget equal to? Less than the cost of three 747's, or 16 hours of battle in Indo-China; about one-tenth of the budget of the New York City Health Department; or one-sixth the amount Americans spend annually on chewing gum (they spend \$457,380,000).

Perhaps I should not use these comparisons because I would like to be among the first to seek to maintain world health as an issue outside, beyond, and above politics.

I have therefore included in an appendix an overview of various international health efforts and there are more detail in relationship to these points in the full report.

WHO means as much to Americans as it does to Belgians and Zambians. And while continents may be separated by water and nations by boundaries, health as a reflection of science and technology is indivisible and inseparable. Let us examine how the United States has benefited from the international aspects of science, medicine, and health. Let us see why the United States must become a more active participant and a greater contributor.

We know that for 480 years smallpox plagued the Americas as it had the rest of the world for millennia. Recently, in a period of 8 months, no case of smallpox was discovered in all the countries of this hemisphere and in his year end 1971 report, Dr. Candeanu, Director General of WHO, stated:

Programs of smallpox eradication begun in the fifties and intensified in 1967, steadily reduced the extent and severity of the problem . . . Although the search for unrecognized foci of infection continues, it now appears that we may in the not too distant future be able to celebrate a major achievement in the history of medicine—the eradication of a disease from an entire hemisphere.

It is interesting to note the history of this achievement of man. For centuries in China and in the Middle East a procedure called variolation was used. This was an attempt to produce a mild smallpox infection to achieve immunity.

The pin pricks which now protect our children originated more than a thousand years ago. At that time, scabs from smallpox lesions were used for inoculations to protect against smallpox in China; the introduction of dried, preserved, less virulent smallpox material were needle pricked into the skin in central Asia.

For hundreds of years these measures were used to protect the beauty and market value of slaves in Turkey and Africa. Lady Mary

Wortley Montague, wife of a British Ambassador then in Constantinople, was probably the first Westerner to have her children inoculated for smallpox. The procedure was thus called to the attention of the West.

A Greek physician performed the variolation. She carried the idea back to England where, after seven criminals and six orphan children had been inoculated and demonstrated to be immune to smallpox infection, the children of the English royal family were variolated.

Much later, Edward Jenner, a pupil of John Hunter, observed that cowherds and milkmaids who had had cowpox were immune to smallpox. In 1796, an 8-year-old boy was inoculated by Jenner with pus taken from milkmaids' cowpox pustules.

A few weeks later, the boy was "challenged" with smallpox matter. He was found immune. Jenner's report was rejected by the Royal Society of Medicine in England. It was not confirmed by other British doctors.

His observations, however, stimulated Von Ferro, an Austrian, to inoculate his own children, and he proved and confirmed Jenner's work. And thus still another nation was added to the roster of those who contributed to the development of preventive measures which is now a standard in all countries of the world.

Senator HUGHES. Dr. Sackler, I am going to have to interrupt the hearings. The vote bell rang about 7 minutes ago, and I have to vote on the floor of the Senate. I will have to recess for 10 minutes and then I will be back. I am terribly sorry. The committee is recessed until the call of the gavel.

(Whereupon, a brief recess was taken.)

Senator HUGHES. The hearing will come to order, and you may proceed again, Dr. Sackler.

Dr. SACKLER. As I was saying American children today have thus been protected by the observations of Chinese and Middle Easterners, the bravery of a British noblewoman, the intelligence of an English physician, and the industry and vision of an Austrian.

Today the world has the assurance of experience to which has been added the skills and technology of WHO. No child need lack a safe vaccine of assured potency.

From time immemorial malaria has been a killer and a crippler. Even in the 1950's 3 million people died each year from the malaria-infected bite of the *Anopheles* mosquito and one-third of a billion people suffered the weakening effects of this disease.

Add to this toll the increase in deaths from other causes when complicated by malaria.

Physical and mental development of children is impaired. The survival of newborn is lowered. Malaria saps not just a person, but a people. It retards their commerce and industry. It has barred the development of fertile and fruitful areas of the world.

Once again the international nature of a fight on disease has been demonstrated. The Indians in Peru first noted that the cinchona bark could suppress a fever symptom. Modern man uses an extract, quinine, which was first isolated by two Frenchmen, Pierre Pelletier and Joseph Caventou.

It was a Frenchman, Alphonse Laveran, who demonstrated the malarial parasite in the blood. Two Americans, T. T. Smith and F. L. Kilborne, identified the *Anopheles* mosquito as the vector, or pusher of this disease.

DDT was first synthesized in 1874 by O. Zeidler, a German from Strasbourg, and it was the genius of a Swiss chemist, Paul H. Muller, which made DDT a practical measure for eliminating the *Anopheles* mosquito in its breeding place, thus preventing transmission and reducing the need for antimalarials.

Once again we see a classic example how a disease can be fought only on a multinational basis.

Mr. Chairman, one of the principal points I wish to make today is that the World Health Organization has accomplished great things for the citizens of all countries on a relatively modest budget. There is every reason to believe that much more could be accomplished in world health by an expansion of the WHO budget.

I advocate such an expanded budget and I advocate a leadership role in this effort by the United States. Appendix II of my statement contains a brief analysis of the overall WHO budget and the U.S. contribution to that budget.

At present, the regular WHO budget is approximately \$73 million per year. The United States pays about 30.8 percent of this amount, or a mere \$24 million.

Recent legislative developments in this country, however, threaten to reduce even this relatively small U.S. contribution and consequently weaken WHO's program efforts around the world. As you know, the House of Representatives voted on May 18 of this year to reduce the U.S. contribution from 30.8 percent of the WHO regular budget to 25 percent.

If this provision stands, it would represent, in my opinion, a giant step backward. The weakening of the WHO just at the time when it is achieving remarkable success would be a great tragedy.

I would recommend that the United States maintain its share at 30.8 percent and challenge other nations to increase the total funding of WHO so that even as our percentage share is maintained, all nations would combine to increase the operating funds of this vital world agency. On a cost-benefit basis, such a step would be a logical one.

Today the greatest challenges face medicine. The greatest threat to American health are new plagues and old, chronic diseases. Their origins are international and their solutions may be, too.

From our experience with the control of other plagues, malaria, measles, smallpox, typhus, typhoid, it becomes clear that the solutions to those plagues did not reside within the boundaries of one country alone. They grew out of experiences of peoples and the contributions of men of medicine and science of many nations, of different regions, and of varying backgrounds. What was true in those instances was also true in the launching of the atomic age.

One can multiply these examples in medicine again and again to demonstrate the need for international practice and participation in the fight on diseases. Science, like medicine, has no national boundaries. All Americans should be conscious of how the United States opened the atomic age.

When a horror of history drove scientists from Europe, America gathered them in. We survived the war and the nature of the future was determined. Think of the names which make up the foundations of the atomic revolution: Albert Einstein, a German; Liza Meitner, an Austrian; Leo Szilard, a Hungarian; Enrico Fermi, an Italian.

The roster of regions and nations is significant, and to them, America added an Oppenheimer and a Groves.

The lesson is simple. It would only be an arrogance of ignorance that would lead us to believe that any one nation has such a monopoly of skill and intelligence that it alone can solve all such problems. In addition to this scientific reality, there is another very real and practical aspect—the battlefield on which disease must be fought and its victims are scattered all over the world.

The studies to be truly penetrating would be best if they were worldwide in range. And even more mundane is the fact that we may save enormous sums of money because differences in national costs are such that many research projects can be less expensively carried out in other areas of the world.

We do not know when we may confront once again an epidemic like that of the influenza of 1918–19. It was then that 20 million people, more than twice the number who died in World War I, lost their lives. In that great influenza pandemic, an estimated 700 million persons contracted the disease.

For those familiar with the epidemiologic problems associated even with the more recent Asiatic flu and those sensitive to the unpredictability of changes in viruses, the situation presents a constant nightmare.

Are we as a nation taking the possibility of a deadly pandemic seriously enough? Dr. Joshua Lederberg, the Nobel laureate, testifying before a House subcommittee in December 1969 said:

There is a considerable amount of self-delusion that the antibiotics will take care of any bacterial infection * * * that virus infections will somehow then be taken care of although when you see a pandemic like the Hong Kong flu you have a foretaste of what can happen * * * something like 20 to 30 percent of the world's population was affected by this virus. It was not a particularly lethal one but it is only a minor accident that it is not a lethal virus.

Fortunately we do have the WHO epidemiologic warning network. If we did not, we would have to create one. It is my belief that this network and related WHO activities are worth the total cost of the U.S. contribution when one considers the time it saves, the lives it spares, and the reduction in losses caused by epidemic disease.

The Agency for International Development distributes most U.S. international health moneys. AID is located in the Department of State, divorced organizationally from the international medical expertise—such as exists in the Department of Health, Education, and Welfare—and the international traditions of the U.S. Public Health Service.

But even in AID, the last few years have seen a decline in funds for health programs. AID funds are, of course, handled on a bilateral rather than a multilateral basis.

Interestingly, its expenditures for population control which constituted a small fraction of its total expenditures in 1966, has increased so that by 1970 and subsequently this one program alone was three

times larger than the U.S. contribution to WHO and it matched WHO's total regular budget for the year.

We hear much about the reordering of priorities. It is always well to reexamine and reassess our efforts. The question arises as to how the United States can get the biggest medical bang for its buck.

It is my opinion that the intergovernmental, multilateral investments made in WHO can offer the largest return for each dollar expended both for the people of the United States and the peoples of the nations around the world that the United States would want to assist.

When it comes to matters of health, I would be the last to recommend budgetary reductions in any area. What is needed above all is an increase and a supplementation of all efforts and, in particular, our support to WHO.

From this brief summary it is clear that the need for U.S. support of WHO is not yet understood by the public, has not been promoted by the organized medical community, and has virtually no support from those very government agencies who should be providing the thrust for this essential, enlightened effort. This lack of support has been evidenced in several ways.

1. U.S. delegates to the WHO Assembly have consistently voted against the budget proposed by the WHO and have sought lower funding.

2. Presently the United States is moving to supplement or bypass WHO activities by supporting other international agencies such as NATO.

I have spoken as an individual physician, not as a representative of WHO. I have spoken as an American interested in the health of our people as well as the health of others. I have spoken as a father who recognizes that the freedom from disease and freedom from addiction of our children is closely linked to the same freedoms for children throughout the world.

I have spoken as a concerned citizen who believes that disease and epidemics which are international in origin and multinational in character again can best be tackled on an international and multinational basis. I have spoken as an individual who has observed the debt that each individual nation owes to its fellow nations for the solution of so many of the basic problems of science, most particularly in the areas of medicine.

Senator HUGHES. Thank you, Dr. Sackler. I regret to inform you that a vote bell has sounded on the floor of the Senate, and I must go back to vote.

In the interest of all of you, these are health votes we are voting on. I apologize for recessing again. I will be back as soon as I can. The hearing is recessed.

(Whereupon, a brief recess was taken.)

Senator HUGHES. The committee will be reconvened. Dr. Sackler, do you have anything to add to your statement?

Dr. Sackler, could you tell me how many years you have been familiar with the WHO organization?

Dr. SACKLER. I've worked with WHO for about 2 and a half years. Senator HUGHES. Are you familiar with their programs and their work around the world.

Dr. SACKLER. I have a general idea of their programs, but my function is primarily focussed on world health manpower.

Senator HUGHES. What do you consider the greatest health need of a developing country?

Dr. SACKLER. Health manpower.

Senator HUGHES. That is your present familiarity. We are attempting to structure legislation and we must form a basis for legislation in the subcommittee. Did you hear the testimony yesterday?

Dr. SACKLER. I was not present, but I did receive a report on it.

Senator HUGHES. Do you have any ideas which would be helpful to us in structuring legislation to meet the health manpower needs?

Dr. SACKLER. I believe the preparation of special budgets directed at this problem can give enormous yields. There is a tremendous gap between what we can do in health care services and what we can actually deliver, and the reason for that gap is that there are just not the people available to deliver them, and that is true for the United States as well as the rest of the world.

Senator HUGHES. What are the attitudes generally of the developing nations toward WHO?

Dr. SACKLER. I think that their attitude is a relative one. The outlook would be very dismal for them if there was not WHO, and I think that they are encouraged to seek assistance.

There are many problems involved. Most nations would like to have the same type of hospitals and the same type of medical services as we have, even though this is not necessarily relevant to the problems of the world. What is needed in the world today, frankly, are not more cardiac surgeons, or cardiac transplants. It is the availability of simple and practical measures for the most common diseases that confront people.

For example, in the area of infant mortality, almost 80 percent of infant mortality can be wiped out with what we now know and with the training of personnel in the areas of simplified medicine.

Dr. GRUPENHOFF. Senator, if I may add to that, one of the interesting problems that the underdeveloped countries fear being entangled in bilateral relationships, because that seems to make them allies of whatever powers are furnishing the money.

As a consequence, the WHO and the UN-affiliated agencies are about the only place they can turn and about the only place the governments will have support from the populations in turning to in order to get some health problem solved.

Senator HUGHES. Do you think the admission of Red China will alter the U.S. position in WHO?

Dr. SACKLER. I hope so ultimately. I think the use of barefoot doctors in Red China has demonstrated what can be accomplished with our present knowledge with the addition of manpower trained in basic procedures.

Dr. GRUPENHOFF. Senator, if I might comment on that, also. As you may know, on the 18th of last month, the House passed an appropriations measure which called for a decrease to 25 percent of appropriations from 30.84 for WHO and other U.N.-affiliated operations.

It is my feeling that this was a direct result of the feeling on the part of the people in the House, anger about the admission of Mainland China and the exclusion of Taiwan from the U.N., but that has had a very important effect already in the underdeveloped countries, as I saw when I recently visited the South American and Caribbean areas.

So the situation is that the House has already passed because of their pique over Red China's admission, appropriations measures cutting down unilaterally to 25 percent in spite of our treaty obligations the amount of money we currently give to U.N. and U.N.-affiliated agencies.

I know in the Senate the subcommittee and the full Committee on Appropriations have marked up a bill and the bill report was recently issued. In that bill, the 25-percent figure remains, but the 25 percent becomes operative the first of the next calendar year.

On the House side it was the first of the fiscal year. The Senate gave more leniency to the first of the calendar year. However, the point is to be made that the administration vigorously opposed on the House side this unilateral cutting down by 25 percent, and it was administration amendment proposed on the House side, which was defeated 202 to 154.

In the Senate, I understand, the administration is hopeful it can rally its Senators against this unilateral cut to 25 percent, and the administration's argument and President Nixon's argument in his message on international affairs recently the comment made by the President was that we cannot do this unilaterally.

We have to do it thorough negotiation. The negotiation process takes place in 1974. To do this cutting to 25 percent unilaterally is to do the same thing we have been blaming the Russians and others for, not supporting the proper amount of their commitments, for example, to the peacekeeping operations and to other areas of operations.

So that very shortly, I am convinced, a vote will come up in the Senate, and I am hopeful that the administration forces will attempt to rally those friendly Senators to their banner, and I am hopeful that other Senators will agree to attempt to stop this unilateral cut of 25 percent.

It represents for WHO an immediate cut of \$5 million, \$5 million this year, and for WHO, for example, this year is already half through so it would mean a cut back of one-twelfth of the amount of money we have been giving immediately, and WHO has already suffered severely because of our devaluation of the dollar.

So that caused cutbacks in WHO. Again we seem to be moving toward cutting them back again, and I was in the Caribbean and South America just at the time this bill was passing in the House of Representatives, and I listened to BBC broadcast which was re-translated down there, and they were commenting on the effect this would have on the underdeveloped countries.

I was in Guiana at the time when I listened to this, and the Pan American health organization people and the WHO people were shocked, as was the Government.

So it came home to me very strongly what kind of impact this would have in underdeveloped countries.

Senator HUGHES. Apparently the charge has been made that the WHO is drawing its staff from experienced physicians of developing nations thus decreasing the resources of the developing nations? Is there any truth to this?

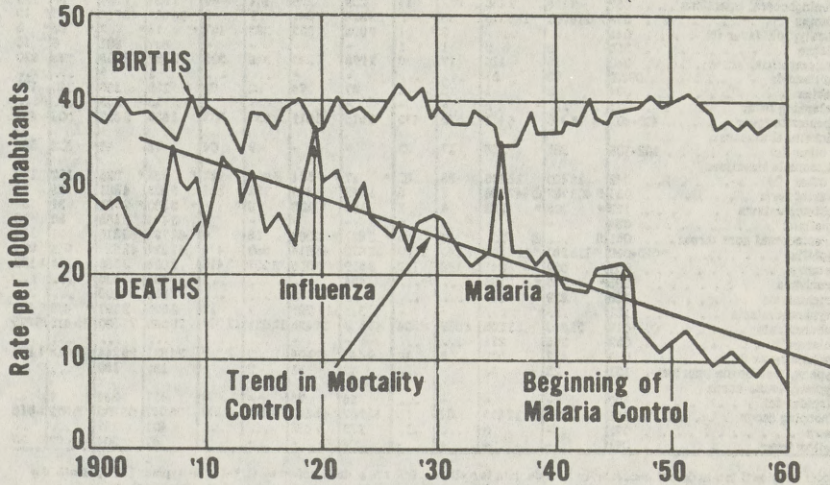
Dr. SACKLER. I could not comment on that.

Dr. GRUPENHOFF. I could not comment on that, either.

Please let me take this opportunity to submit the following charts dealing with the health picture in developing countries.

(The charts referred to follow:)

THE BEGINNING OF DEMOGRAPHIC CHANGE IN CEYLON, 1900-1959



Source: Population Reference Bureau, Population Bulletin, Vol. X, No. 5, JULY 1954, pp. 60-61-United Nations Demographic Yearbook 1960

*Graph: Reproduced from G. Myrdal, *Asian Drama*, Pantheon, 1968.

*Line on mortality trend and starting dates for comprehensive national malaria control added.

Table I - REPORTED CASES AND DEATHS FROM COMMUNICABLE DISEASES IN THE THREE REGIONS OF THE AMERICAS, 1965 AND 1966

Diseases	Northern America				Middle America				South America				
	Cases		Deaths		Cases		Deaths		Cases		Deaths		
	1965	1966	1965	1966	1965	1966	1965	1966	1965	1966	1965	1966	
Amebiasis	2810	2968	37	56	4070	4020	84	1572	2832	2333	250	431	
Ankylostomiasis	4821	5767	2	2	1811	2310	3	47	5018	3910	456	678	
Anthrax	7	5	-	-	2	2	22	7	418	401	15	14	
Botulism	043.1	25	0	10	-	-	-	-	7	3	3	-	
Brucellosis (undulant fever)	044	300	283	6	3	1114	1447	80	41	1802	2399	22	7
Chickpox	087	153831	136214	150	14	49820	10125	173	34	50065	69676	72	56
Dengue	090	...	...	...	...	884	8	...	...	4041	750	...	...
Diphtheria	055	215	246	4	57	1703	1630	448	481	5764	6459	671	719
Dysentery, all forms	045-048	17917	18231	246	184	11444	96350	3702	6001	179379	147710	2784	2145
Dysentery, bacillary, other and unspecified	045,047,048	14998	16283	179	150	29540	25812	4342	2574	100783	124678	5469	541
Encephalitis, acute infectious	026	1813	2125	261	630	103	105	219	284	1451	1525	426	42
Erysipelas	052	106	102	13	15	2366	596	618	432	802	808	114	128
Filariasis	127	...	...	...	...	6463	5954	1	1	1769	2100	1	3
Food poisoning, other	049,0,049.2	470	1438	17	23	4730	3289	179	136	3604	4826	26	175
Genococcal infection	030-035	345229	373375	9	18	80730	52366	12	13	76514	76300	31	23
Hepatitis, infectious	092	40482	58696	806	831	16703	15741	623	572	9815	13699	595	479
Hydatidosis	124	...	...	...	...	10	-	-	-	1733	1788	182	143
Influenza	490-493	...	...	2734	3474	27103	21184	11177	16143	276659	262777	7205	6186
Leishmaniasis	120	...	...	...	...	110	306	...	...	1832	2043	...	...
Leprosy	080	97	111	3	0	1038	994	67	59	3721	3017	136	187
Leprosy, lepromatous	072	84	72	11	0	17	47	19	19	91	3	49	-
Malaria	110-117	150	872	4	1	24839	157135	1000	872	152491	182144	1442	1311
Measles	083	262493	204240	347	311	14756	6443	1454	12643	144553	151671	8125	7811
Meningococcal infections	087	4128	3485	0	114	228	228	104	60	1334	1550	84	190
Mumps	084	114101	118315	33	3	30323	7841	22	0	36197	42742	0	13
Paratyphoid fever (b)	041	...	...	...	...	2002	553	283	157	14	7	96	3
Plague	058	8	6	1	1	-	-	-	-	837	861	6	16
Poliovirus, acute	060	75	116	17	0	1700	1379	348	306	2187	2338	77	210
Psittacosis	062.1	65	51	...	...	...	...	...	...	1	3	...	...
Rabies	034	2	1	2	2	67	78	20	33	169	133	110	150
Relapsing fever	071	...	...	...	...	...	...	...	...	1	23	...	...
Rheumatic fever	490-492	5310	4481	528	475	3075	2311	385	305	1850	2617	503	437
Rickettsial diseases, other (a)	102-108	281	268	17	23	-	-	49	54	72	44	622	584
Salmonella infections, other (b)	042	18400	18306	66	82	17	504	1051	932	333	326	152	128
Scarlet fever	050	403767	447736	7	6	1022	873	132	144	3405	4281	23	14
Schistosomiasis	123	305	288	4	2	151	108	8	-	3280	2731	31	36
Smallpox	084	...	...	...	...	...	...	...	...	3494	3565	53	33
Streptococcal sore throat	051.0	...	...	...	...	3237	2064	13	4	82796	68215	21	119
Syphilis	050-053	115280	107192	2540	2123	52772	41814	569	478	41227	42634	916	974
Tetanus	051	309	241	128	167	3519	3656	3277	3413	3628	3698	4955	5190
Trachoma	095	215	1165	...	...	454	...	...	...	423	536	...	...
Trichiniasis	128	239	213	...	...	...	...	...	...	111	109	...	...
Trypanosomiasis	121	...	...	...	...	...	...	...	...	111	109	...	...
Tuberculosis	091-019	53810	52203	2033	2204	4553	37433	11321	12317	72585	77580	15418	15890
Tularemia	059	265	21	...	...	...	...	...	...	...	...	...	...
Typhoid fever (a)	040	612	505	6	19	947	11504	2225	2450	26831	26244	1014	1175
Typhus, flea-borne (murina)	101	28	33	...	...	33	61	2	-	151	139	...	...
Typhus, louse-borne (epidemic)	170	...	...	...	...	34	75	5	5	427	389	1	...
Whooping cough	056	9274	12375	64	56	45767	41650	8277	4170	106947	68473	5970	6616
Yaws	078	...	...	...	...	279	1476	...	...	431	147	...	...
Yellow fever	091	...	...	...	...	...	...	...	...	...	...	...	...

Note: Regional totals do not necessarily include data for all the countries or the same countries for every disease or for each of the years. Figures with asterisks refer to less than 5% of the regional population.

(a) Includes botulism (043, 1).

(b) Includes paratyphoid fever (041) for 1965; countries are included in those of typhoid fever (040) or in those of other salmonella infections (042).

(c) Case data refer to typhus (101); death data refer to typhus and other rickettsial diseases (101-108).

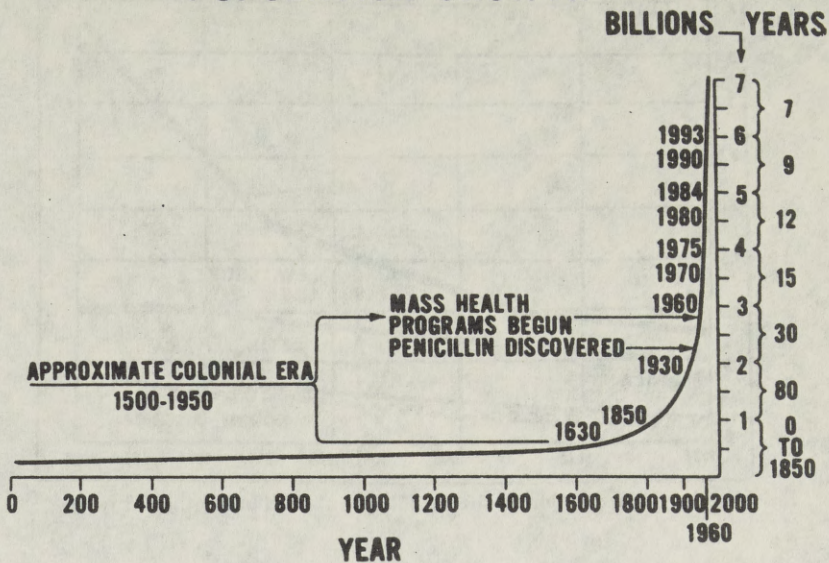
(d) Case data refer to typhus (101); death data refer to typhus and other rickettsial diseases (101-108).

(e) Includes botulism (043, 1).

(f) Includes typhus (101) and other rickettsial diseases (101-108).

Source: Pan American Health Organization 21/

THE WORLD'S POPULATION GROWTH



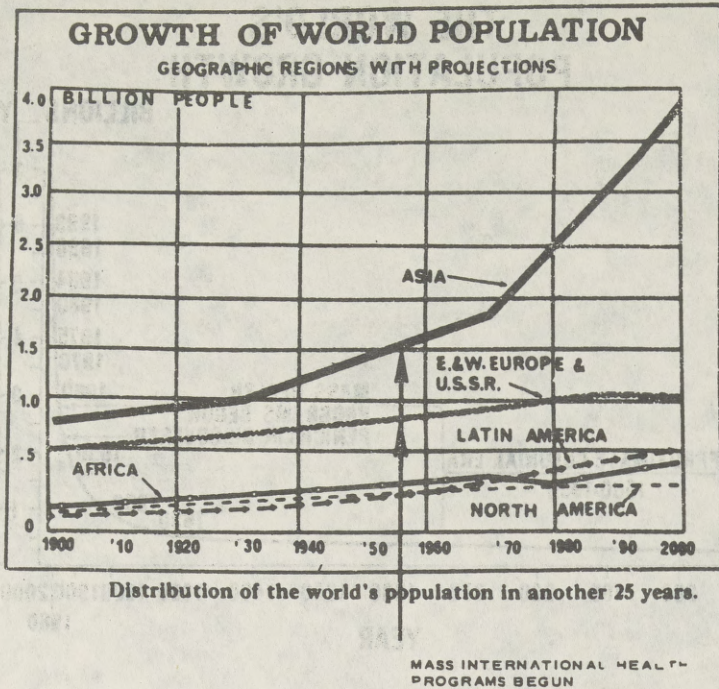


Figure IV

Source: Taylor, C. "The World, the Flesh and Harvard Man" from the Harvard Medical Alumni Bulletin, Summer 1966.
Arrows added to indicate starting date for comprehensive international health programs.²²

Dr. SACKLER. I think it would be fitting to call attention to a report that was prepared for the Subcommittee on National Security, Policy, and Scientific Development of the Committee on Foreign Affairs of the U.S. House of Representatives by Freeman Quimby. I think this sort of report can provide an essential base for legislative considerations, and it represents, I believe, a classic and landmark study to which attention should be directed. The material should be more fully used.

If you ask what can be accomplished, I think these hearings here are one of the elements that are essential in taking any steps forward. We need the education of our public, and of both Houses of Congress as to the scope of the problem and what it can accomplish.

Senator HUGHES. Have you had the opportunity to contact many Senators and Congressmen as a representative of WHO?

Dr. SACKLER. Very few. As an individual, I have to be exceedingly careful that I represent myself as an individual and am not engaged in lobbying for WHO.

Senator HUGHES. I was wondering about your experiences and how many of them are knowledgeable concerning the activities of the World Health Organization?

Dr. SACKLER. I would think if they knew more about it that the appropriations would not be a problem.

Senator HUGHES. That is a diplomatic answer, Dr. Sackler. It would be appropriate in any country. I am afraid, that the educational process which you are talking about, by committee hearings and so on, and certainly this is a beginning, but it does not attract much in the way of dissemination to the general public.

Perhaps it will help in the congressional educational process, but general knowledge of WHO and what it does and what it means to this country and the fact that it is a two-way street and not some sort of a giveaway that does not benefit people in this country is exceedingly important. I think we should always stress the benefits that we receive in the areas of medicine and health delivery when we try to gain support for these programs.

Dr. SACKLER. I think it is significant that your committee is holding these hearings, because most people have no idea of the dependence of the United States upon the contributions of scientists in different countries throughout the world.

If you are wanted to get a picture of what our medicine would be like today without insulin, for example, without sex steroids, without antibiotics, without antihypertensives, it would be pretty hard for a physician to function in handling most of the problems he confronts.

Insulin, for example, was based upon the work of two Canadians, Banting and Best, and the recent oral hypoglycemics were the result of the work of French and German researchers.

Sex steroids was dependent upon the work of German and Swiss chemists, and without them there would be no oral contraceptives today.

In regard to antibiotics, which are so essential in the control of infections, it was the British who did the most basic work and most recent contributions in the field of tuberculosis have been made by Italian scientists. In regard to antihistamines, we were dependent upon the original work done by French scientists. In regard to the agents for control of high blood pressure, again we have the contributions that have been made not only by American scientists but also by Swiss and British research.

Therefore, it is particularly fitting that we approach the problems of health not from a regional or highly localized point of view, but from the point of view of the total international community, because these are the ways in which these problems have been solved.

You might be interested in some idea of the costs that can be saved by that approach. It was a French discovery that gave us chlorpromazine and that was the first of the major drugs for the control of mental disease, the control of psychosis, and data that I have obtained indicates that in the 14-year period between 1955 and 1969 in the United States alone, we saved \$3.6 billion in hospital construction as a result of this discovery, and we saved about \$1.7 billion dollars in 1 year alone on care of patients who would otherwise have been in mental hospitals.

In the 14-year period, we have probably saved \$10 billion to \$12 billion in regard to one disease, serious mental diseases, as a result of a discovery made by a French biochemist.

Dr. GRUPENHOFF. Senator, I would like to add a sentence or two there. It is interesting to see how much our support for the world health organization has cost. The United States, it is 12 cents per citizen. AID for all of the U.N. and U.N.-affiliated agencies is \$1.57 per person and that is the 1970 figure.

That is compared to \$373 just for the support of our military establishment. So we can see that the 12-cent figure is very, very small, almost miniscule. Another interesting statistic is, according to the New York Times, the latest moon shot cost \$500 million. All of the AID since the world health organization was established in the 1940's is about \$170,000, or two-fifths of the cost of the moon shot.

Senator HUGHES. \$170 million?

Dr. GRUPENHOFF. \$170 million. I am sorry.

Senator HUGHES. Thank you for your time and your contribution to the deliberations of this committee. I am sure it will be beneficial to us and to the country and the world.

Thank you.

(The prepared statement of Dr. Sackler follows:)

TESTIMONY STATEMENT

of

ARTHUR M. SACKLER, M.D., CHAIRMAN

INTERNATIONAL TASK FORCE ON WORLD HEALTH MANPOWER

of the

WORLD HEALTH ORGANIZATION

Accompanied by

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Before the

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I am Arthur M. Sackler, M. D., Chairman of the International Task Force on World Health Manpower for the World Health Organization. The Task Force is an advisory body to, but not an organ of, the WHO. The mission of the Task Force is to study and stimulate, initiate and evaluate innovative approaches for increasing world health manpower.

The World Health Gap

Today, America and the world confront a gap—a health care gap, a gap more deadly than the missile gap and a gap more dangerous than the credibility gap. Closing the health care gap can contribute to the quality of life today; not tomorrow, not the day after tomorrow. Closing the health care gap can benefit every citizen of the United States as well as every nation in the world.

For a people with a history of medical missions, the United States has fallen upon sad days. A nation that had been world "creditor" in the field of medical manpower, medical research and medical care this country is now a health debtor, a "welfare recipient" of unofficial medical "missions" from the poor and less affluent nations of the world. To staff our own

hospitals and institutions, the U. S. now drains doctors and nurses from the limited, modest, if not impoverished pool of health manpower of less developed countries. One of each three residents in U. S. hospitals is trained abroad—and 7,000 residencies remain unfilled.

Also, this nation presently is losing part of the lead it has had in the field of medical research. The United States is not first in terms of longevity but sixth; not first in terms of low infant mortality but 16th. The United States must look both to itself and abroad for a constructive, not an agonizing, reappraisal of health priorities and needs. The United States cannot long live as an island of relative medical affluence in the ocean of disease and hunger which characterize the developing and poor nations of the world. Nor would it wish to live as an island of second-class medical care in a smaller sea of developed, industrialized nations with better health services, more health manpower and higher quality health performance. No nation could, even if it wished to, quarantine itself from the impact of disease or the developments of science in the world about it. Throughout the Christian era great pandemics devastated Europe and the near east. But it was not until 500 years after the depopulating pandemic of the Black Death that nations sought to join together in the fight against disease.

(see Appendix I)

At one time it was easy to establish quarantines for smallpox and the plague. Today, in the world of jets, we cannot isolate the effects of disease. In an age of transistors, we cannot quarantine the contagion of addiction. Today, in respect to ideas as well as illness, we are truly one world—in which technology is shrinking space and time.

The time is long past when our priorities should be dictated by either hysteria or headlines. They must rest upon the fundamentals which govern health and a stable society. The world will not solve the population explosion with the pills, and control of disease calls for more than capsules of medications. We do not try to solve food shortages by transporting corn in leaking vessels—nor can we solve hunger by providing wheat to feed men, women and children whose gastrointestinal disease and diarrhea prevent food absorption or who promptly lose food through unhealthy excretion. An unhealthy population is an unstable population, unable to hold jobs or work, unable to absorb or retain food, unable to balance its human with its physical resources.

An American's Stake in World Health

The average American in middle America has as big a stake in your deliberations here as a resident in schistosomiasis-infected Africa or the diarrheal-infected barrios of Latin America or the slums of southeast Asia. Do we have to wait to repeat the sad experiences of the past? There is no quarantine procedure which can successfully isolate America from all the inflictions plaguing man in other countries. Is not the lesson of heroin here for all to see? For millenia marijuana had been used endemically in many areas of the world. It was transplanted to this continent. For generations opium had been endemic in many parts of the world. It was transplanted to this country. For years heroin plagued the ghettos, but most people shrugged their shoulders and turned their backs—what did that have to do with you and you and me? But it did, as we now know. The psychic contagion of heroin first broke through the geographical boundaries of the ghettos where it was originally endemic. It spread to different ethnic groups, different social and economic strata, and in some sections of this country became an epidemic.

The psychic contagion of drugs has now burst through national boundaries in the same way as alcoholism, and like alcoholism is threatening to become a pandemic, affecting peoples the world over. We are putting scores of millions into the fight against drugs but this battle cannot be fought on our terrain alone. If we are to understand the chronic effects of opium and hashish, we will have to conduct studies where chronicity of their use has had a long history. The geography of other addictions, such as alcoholism, and some of its relations to other diseases such as cancer of the esophagus provides clues which must be tracked down in multinational studies. Drugs, like disease, cannot be isolated and Americans must in all humility recognize that we have much to learn and gain from the world around us even as in the past we had much to give.

Venereal Disease and the Sexual Revolution

For those who think that the problem is restricted to the psychic contagion of addiction, the lessons of venereal disease reinforce the message we must bring to all peoples. Success after success greeted the efforts of researchers and practicing physicians as venereal disease was wiped out in section after section. But while man tends to rest on his laurels, the spirochete and gonococcus do not. We, today, confront the worst epidemic of venereal disease in fifty years. This is not a local manifestation. As so many different aspects of disease, it is a world-wide phenomenon. The sexual revolution which took place almost a generation ago in the Scandinavian countries has been followed by what some would call an "enlightenment" and others a "plague" on virtually every continent. The mixture of new social mores and a new contraceptive technique, the pill, have been explosive in regard to the spread of venereal disease.

I bring these matters up because I think that every American, every parent and all our youth have a stake, a very personal stake in those issues which constitute the domain of world health.

All Countries Learn From Each Other

Our stake in world health goes beyond the area of what some may call "social diseases"—such as addiction and venereal infections. There is virtually no disease of either impoverishment or ignorance or underdevelopment from which this country is exempt. Likewise, despite the difference in our social systems and despite the differences of the state of industrial development, there is virtually no experiment in health care distribution, no pilot project in medical education, no innovation in the use of auxiliary or paraprofessional health manpower which does not have applicability in some measure to this country as well as to virtually every major country in the world. The problems of adequacy of health manpower, of the efficiency in their use and of the distribution of their services are problems that are a common denominator which we share with nations as big as China and Russia and those as small as Israel and Venezuela.

Most acute diseases are soluble—the commonest, acute problems of world health are easily soluble today. They do not depend upon great break-throughs in science or technology—they depend upon simple, organizational and fiscal measures. The enlightened self-interest of this country can stimulate others to a higher commitment. The cost in budgetary terms is modest to the point of being fiscally inconsequential in the totality of national economics. Compared to the effort to place a man on the moon, compared to the ingenuity, the technical unknowns, the numbers of men and the billions involved, we speak of something so simple that one could characterize it as child's play. An international effort in the field of world health compared to the space effort has the stakes completely and totally reversed.

The stakes are higher—the costs low—the world can win healthy lives for hundreds of millions; the United States can earn not only scientific but human credibility at a cost that would be a pittance even if it were compared to the price of a single booster rocket. The exploration

of the moon stands as a "skymark" of man's achievement, even as we wait for some fall out of this incredible technical break-through to reach you and me and the man in the street.

Has not the time come for greater efforts here on earth to make life better for all our people now? Has not the time come for a health greeting from the people of the United States to the people of the world? The cost of such an effort, of an earth-bound exploration of man's willingness to help man, would be so small and the fall-out for all the peoples of the world, as well as for each and every American family, would be so great as to be virtually incredulous. A growing commitment on the part of the United States to world health can achieve miracles in freedom—freedom from death and disease. The cost would be a pittance compared to a small contract overrun.

What About the Cost?

Isn't it about time for us to stand back and look at ourselves? We are supposed to be homo sapiens, thinking men. In 1971, the total budget for the World Health Organization was \$73 million of which the United States, I am proud to say, contributed nearly one-third. Another 134 nations also contribute. What is this total WHO budget equal to? Less than three 747's, or 16 hours of battle in Indo-China; about one-tenth the budget of the New York City Health Department; or one-sixth the amount Americans spend annually on chewing gum (they spend \$457,380,000).

Perhaps I should not use these comparisons because I would like to be among the first to seek to maintain world health as an issue outside, beyond, and above politics. Regardless of the fact that it may be good politics and that it may be the supreme form of international diplomacy, greater U.S. participation in the advancement of world health can be justified on other grounds. It can be justified by both pure altruistic humanity or the most selfish form of personal and national self-interest.

I have included, as Appendix I, a brief overview of the history of international health efforts. The end result, to date, has been the development of the World Health Organization.

What Does WHO Mean for People?

WHO means as much to Americans as it does to Belgians and Zambians. And while continents may be separated by water and nations by boundaries, health as a reflection of science and technology is indivisible and inseparable. Let us examine how the United States has benefited from the international aspects of science, medicine and health. Let us see why the U. S. must become a more active participant and a greater contributor.

World Medicine, WHO and Smallpox

We know that for 480 years smallpox plagued the Americas as it had the rest of the world for millenia. Recently, in a period of eight months, no case of smallpox was discovered in all the countries of this hemisphere and in his year-end 1971 report, Dr. Candau, Director General of WHO, stated:

"Programmes of smallpox eradication begun in the 1950's and intensified in 1967, steadily reduced the extent and severity of the problem . . . Although the search for unrecognized foci of infection continues, it now appears that we may in the not-too-distant future be able to celebrate a major achievement in the history of medicine—the eradication of a disease from an entire hemisphere."

By 1971, it was believed that smallpox had been eliminated from most of the world and reduced to endemic proportions in just six nations.

It is interesting to note the history of this achievement of man. For centuries in China and the middle east variolation was used. This was an attempt to produce a mild smallpox infection to achieve immunity. The pin pricks which now protect our children originated more than a thousand years ago. At that time scabs from smallpox lesions were used for inoculations to protect against smallpox in China; the introduction of dried, preserved, less virulent smallpox material were needle-pricked into the skin in

central Asia. For hundreds of years these measures were used to protect the beauty and market value of slaves in Turkey and Africa. Lady Mary Wortley Montague, wife of a British ambassador in Constantinople, was probably the first Westerner to have her children inoculated for smallpox. A Greek physician performed the variolation. She carried the idea back to England where, after seven criminals and six orphan children had been inoculated and demonstrated to be immune to smallpox infection, the children of the English royal family were variolated.

Much later Edward Jenner, a pupil of John Hunter, observed that cowherds and milkmaids who had had cow pox were immune to smallpox. In 1796, an eight year old boy was inoculated by Jenner with pus taken from milkmaids' cow pox pustules. A few weeks later the boy was "challenged" with smallpox matter. He was found immune. Jenner's report was rejected by the Royal Society of Medicine in England. It was not confirmed by other British doctors.

His observations, however, stimulated Von Ferro, an Austrian, to inoculate his own children. And, thus, still another nation was added to the roster of those who contributed to the development of a preventive measure which is now a standard in all countries of the world. American children today have thus been protected by the observations of Chinese and middle easterners, the bravery of a British noblewoman, the intelligence of an English physician, and the industry and vision of an Austrian.

Today the world has the assurance of experience to which has been added the skills and technology of WHO. No child need lack a safe vaccine of assured potency. Inoculation is simple. Immunity is easily achieved. No nation need lack field supervision or be deprived of the benefits of surveillance and containment for smallpox.

WHO and Malaria

From time immemorial malaria has been a killer and a crippler. Even in the 1950's, three million people died each year from the malaria infected bite of the Anopheles mosquito and about one-third of a billion people suffered the weakening effects of this disease. Add to this toll the increase in deaths from other causes when complicated by malaria.

Physical and mental development of children is impaired. The survival of newborn is lowered. Malaria saps a people. It retards their commerce and their industry. It has barred the development of fertile and fruitful areas of the world.

Once again the international nature of a fight on disease has been demonstrated. The Indians in Peru first noted that the cinchona bark could suppress the fever symptoms. Modern man uses an extract, quinine, which was first isolated by two Frenchmen, Pierre Pelletier and Joseph Caventou.

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It was a Frenchman, Alphonse Laveran, who demonstrated the malarial parasite in the blood. Two Americans, T. T. Smith and F. L. Kilborne, identified the Anopheles mosquito as the vector, or "pusher" of this disease. DDT was first synthesized in 1874 by O. Zeidler, a German from Strasbourg; and it was the genius of a Swiss chemist, Paul H. Muller, which made DDT a practical measure for eliminating the Anopheles mosquito in its breeding places, thus preventing transmission and reducing the need for anti-malarials.

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Who Funds the World Health Organization?

Mr. Chairman, one of the principal points I wish to make today is that the World Health Organization has accomplished great things for the citizens of all countries on a relatively modest budget. There is every reason to believe that much more could be accomplished in world health by an expansion of the WHO budget. I advocate such an expanded budget and I advocate a leadership role in this effort by the United States.

Appendix II of my statement contains a brief analysis of the overall WHO budget and the U. S. contribution to that budget.

At this point, however, I would like to point out that the WHO budget has been increasing in recent years at a rate just a bit above the general increase in the cost of living.

At present, the regular WHO budget is approximately \$73 million per year. The United States pays about 30.8% of this amount, or a mere \$24 million.

Recent legislative developments in this country, however, threaten to reduce even this relatively small U. S. contribution and, consequently, weaken WHO's program efforts around the world. As you know, the House of Representatives voted on May 18th of this year to reduce the U. S. contribution from 30.8% of the WHO regular budget to 25%. If this provision stands, it would represent, in my opinion, a giant step backwards. The weakening of the WHO just at the time when it is achieving remarkable success would be a great tragedy. Indeed, we should be increasing rather than reducing our contribution, and other nations should step up their contributions as well.

I would recommend that the U. S. maintain its share at 30.8% and challenge other nations to increase the total funding of WHO so that even as our percentage share is maintained, all nations would combine to increase the operating funds of this vital world agency. On a cost-benefit basis, such a step would be a logical one. The WHO programs have proved to be remarkably successful and, as I have tried to point out, the U. S. gains directly and indirectly whenever the general health of the world is improved.

New and Old Plagues Threaten America and the World

Today, the greatest challenges face medicine. The greatest threat to American health are new plagues and old, chronic diseases. Their origins are international and their solutions may be, too.

From Europe, the toxic addiction of alcohol was inflicted upon the American Indian. They gave in return the toxic addiction of tobacco. The physical cold of northern lands and the psychic discomfort in all climates cause men to seek surcease in "the fruits of the vine," and the skills of brewing and distillation. In the warm and rich soil of tropical countries had flowered the curse of marijuana and the poppy. In regard to the latter, it is interesting to observe the international aspect of the vector of narcotic addiction. From the Golden Triangle of Laos, Burma, Thailand, and from the fields of Turkey and Iran flow the fruits of the poppy to be processed with European technology and routed through different continents. Those responsible for the fight against narcotic dissemination know that the vector is international, that the fight against it can only be effective through international cooperation. Unhappily, in respect to the two worst

addictions in the world, the vector is not a mosquito or a seedy looking man. The pushers are national governments, respectable businesses and organizations which profit from the trade. At a recent meeting, in April, of the American Psychiatric Association in Dallas, Dr. Donald Greeves charged the U. S. government to be a "pusher" of alcohol through price cutting and marketing in its military post exchanges, and overseas embassies. The U. S. subsidizes tobacco growing. We daily witness the great lie of the advertising of the "pushers" who seek to identify the deadly habit of cigarettes with masculinity and glamour, and falsely and misleadingly associate it with the open range and the shady glen. Too often many of us serve as unwitting "pushers" of addiction as we make a social custom of disseminating disease with the offer of a cigarette and with the "hospitality" of our cocktails. A Spanish psychiatrist reported recently that one-half the psychiatric beds in Spain are occupied by alcoholics and in one-fourth of the cases social drinking was the source of the problem.

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These problems are international. The U. S. and other nations push their trademarked cigarettes throughout the world. Nations of every political and social complexion push their particular brand of the most dangerous of all, alcohol - Canadian Whiskey, U. S. Bourbon, Scotland's Scotch, England's Gin, France's Cognac, Denmark's Aquavit, Russia and Poland's Vodka, Mexico's Tequilla, and so on and on.

The white plague of heroin, though not more deadly than alcohol in the number it kills, is constantly in our consciousness. I indicated before how truly international is the method of spread of this plague. I stated one belief that only through international efforts could the policing of narcotics be effective.

At this point, I would like to address a much more fundamental issue. There is a core problem in addiction regardless of whether it manifests itself with heroin or hash, with cigarettes or alcohol. The causes which lead to the need for narcotic drugs or for substances which relieve anxiety or emotional discomforts must be studied and defined.

When understood, they will be susceptible to correction or control. It is humbug and hog wash to attribute the development of narcotic dependence to a so-called pill-taking, swinging society. Marijuana and the poppy, alcohol in all its forms, all antedate by hundreds of years the first pills made by man. The use of addicting agents evolved out of man's age-old reaction to physical and psychic discomforts and his discovery that he could deaden or dull these, or that he could escape by taking himself, "out of this world." The ritual use of alcohol, the cactus and the sacred mushroom were all a response to a painful inability in man to master or adjust to his environment. As the ritual hallucinogens burst out of their religious context into a profane society, they produced devastating effects through their undisciplined, unstructured, unrestrained abuse. When we scan the spectrum of psychotropic substances from alcohol to mescaline, marijuana to the opiates, from the sacred mushroom to the peace pipe's descendent, the modern cigarette, we observe that the range of societies involved from ancient time to today have implicated virtually every continent, not for scores of years, but for untold thousands.

From our experience with the control of other plagues, malaria, measles, smallpox, typhus, typhoid, it becomes clear that the solutions to those plagues did not reside within the boundaries of one country alone. They grew out of the experiences of peoples and the contributions of men of medicine and science of many nations, of different regions and of varying backgrounds. What was true in those instances was also true in the launching of the atomic age.

Science Has No National Boundaries

One can multiply these examples in medicine again and again to demonstrate the need for international participation in the fight on disease. Science, like medicine, has no national boundaries. All Americans should be conscious of how the U.S. opened the atomic age. When a horror of history drove scientists from Europe, America gathered them in. We survived the war and the nature of the future was determined. Think of the names which make up the foundations of the atomic revolution: Albert Einstein, a German; Liza Meitner, an Austrian; Leo Szilard, an Hungarian, Enrico Fermi, an Italian. The roster of regions

and nations is significant. And to them, America added an Oppenheimer and a Groves.

The lesson is simple. It would only be an arrogance of ignorance that would lead us to believe that any one nation has such a monopoly of skill and intelligence that it alone can solve all such problems. In addition to this scientific reality, there is another very practical aspect—the battle-fields on which disease must be fought and its victims are scattered over the world. The studies to be truly penetrating would be best if they were world wide in range. And even more mundane is the fact that we may save enormous sums of money because differences in national costs are such that many research projects can be less expensively carried out in other areas of the world.

There Are Still Dangers Ahead

We do not know when we may confront once again an epidemic like that of the influenza of 1918-19. It was then that 20 million people, more than twice the number who died in World War I, lost their lives. In that great influenza pandemic, an estimated 700 million persons contracted the disease. For those familiar with the epidemiologic problems associated even with the more recent Asiatic flu and those sensitive to the unpredictability of changes in viruses, the situation presents a constant nightmare.

Are we as a nation taking the possibility of a deadly pandemic seriously enough? Dr. Joshua Lederberg, the Nobel laureate, testifying before a House Subcommittee in December 1969, said that "There is a considerable amount of self-delusion that the antibiotics will take care of any bacterial infection... that virus infections will somehow be taken care of although when you see a pandemic like the Hong Kong flu you have a foretaste of what can happen... something like 20 to 30 percent of the world's population was affected by this virus. It was not a particularly lethal one but it is only a minor accident that it is not a lethal virus."

He warned that we would be wise to recognize that in the future the situation could be, to use his term, "very much nastier."

A Senate Subcommittee investigating international health activities put it well when it said, "The world wide influenza epidemic of 1957 was a needed reminder ... the disease spread from inland China in both directions around the world to attack the United States simultaneously on both coasts and inland." We were fortunate in 1957. That virus was not highly virulent but there can be no assurance that a deadly flu virus will not appear. We were also fortunate because of the early warning of the WHO network that the U. S. had "enough advance notice to prepare vaccines." Interestingly, "several weeks were lost because the warning network did not include communist China." The "amazingly low outlay (for the warning network) arises from the standard WHO pattern of action."

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Fortunately, we do have the WHO epidemiologic warning network. If we did not, we would have to create one. It is my belief that this network and related WHO activities are worth the total cost of the U. S. contribution when one considers the time it saves, the lives it spares and the reduction in losses caused by epidemic disease.

Where Does the Bulk of U. S. International Health Funds Go?

The Agency for International Development distributes most U. S. international health monies. AID is located in the Department of State, divorced organizationally from the international medical expertise (such as exists in the Department of Health, Education and Welfare) and the international traditions of the U. S. Public Health Service.

But even in AID, the last few years have seen a decline in funds for health programs. AID funds are, of course, handled on a bilateral rather than a multilateral basis. Interestingly, its expenditures for population control which constituted a small fraction of its total in 1966, has increased so that by 1970, and subsequently this one program alone was three times larger than the U. S. contribution to WHO and it matched WHO's total regular budget for the year.

We hear much about the reordering of priorities. It is always well to reexamine and reassess our efforts. The question arises as to how the U. S. can get the biggest medical bang for its buck. It is my opinion that the inter-governmental, multilateral investments made in WHO can offer the largest return for each dollar expended both for the people of the United States and the peoples of the nations around the world that the U. S. would want to assist. When it comes to matters of health, I would be the last to recommend budgetary reductions in any area. What is needed above all is an increase and a supplementation of all efforts and, in particular, our support to WHO.

Factors Influencing U. S. Support for WHO

Why has the U. S. support of WHO efforts been so modest?

1. The public knows a little about international health activities and even less about the contribution of the scientists and doctors of other lands to our health.

2. With the shortage of U.S. health manpower, the gaps in our health delivery system, the spiralling inflation of health care costs divert us from international efforts. They obscure the interrelationship of world health problems. A rising tide of political isolationism is reflected in a self-defeating health isolationism.
3. U.S. medical practice is largely "curative" rather than the "preventive" type of practice which characterizes most international health work. This thrust is reinforced by government grants and by the medical schools' academic programs, and reinforced by the focus on specialties in medicine. Only recently have the schools given more emphasis to preventive and community medicine, largely through the emerging departments of community medicine.

There is neither leadership nor a drive for international health programs in the government agencies where one would most expect them to originate.

The Department of Health, Education, and Welfare which has in the past contained large numbers of international health experts, now has turned inward. We have abandoned the seeding of new programs and the cross-fertilization which made world medicine what it is today. We focus virtually all expenditures on short range, domestic programs. HEW's office of International Health is underfunded and understaffed.

Even the John E. Fogarty International Center for Advanced Study in the Health Sciences, which was launched so auspiciously several years ago, is now badly underfunded and understaffed. It has become a stepchild, a foreign body in the National Institutes of Health, where it is organizationally located.

From this brief summary it is clear that the need for U. S. support of WHO is not yet understood by the public, has not been promoted by the organized medical community, and has virtually no support from those very government agencies who should be providing the thrust for this essential, enlightened effort. This lack of support has been evidenced in several ways:

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1. U. S. delegates to the WHO Assembly have consistently voted against the budget proposed by the WHO and have sought lower funding. Only once has the U. S. been recorded as being in favor of a budget, when an Assembly voted it by acclamation. Congressional appropriations committees dealing with WHO budgets, despite the nature of medical advances and the potential domestic yields from international activities, are seldom generous.
2. Presently the U. S. is moving to supplement or bypass WHO activities by supporting other international agencies such as NATO. The problem is not difficult to understand.
 - (a) We pay about one-third of the WHO regular budget, yet most of the WHO services we receive other than the epidemiologic network are relatively indirect. Underdeveloped nations, who frequently pay less than one percent of the budget, get direct services. These direct services are essential to contain diseases previously eliminated from more advanced societies. It must be remembered that once these vital basic costs are covered, relatively small additional investments will make possible services of direct interest to our country.

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- (b) The U.S., along with other developed nations, is faced with chronic health problems; metabolic disorders, heart disease, cancer, urban pollution, illicit and damaging use of narcotic drugs, alcohol, and the like. WHO has begun to move in new directions. These changes can be encouraged not by a stagnation in WHO's budget, but by reasonable and needed increases.
3. AID has been dropping back its commitment to health activities (while increasing its population limitation programs).

In Conclusion

I have spoken as an individual physician, not as a representative of WHO. I have spoken as an American interested in the health of our people as well as the health of others. I have spoken as a father who recognizes that the freedom from disease and freedom from addiction of our children is closely linked to the same freedoms for children throughout the world. I have spoken as a concerned citizen who believes that disease and epidemics which are international in origin and multi-national in character can best be tackled on an international and multinational basis. I have spoken as an individual who has observed the debt that each individual nation owes to its fellow nations for the solution of so many of the basic problems of science, most particularly in the areas of medicine.

APPENDIX I

The Development of International Health Organizations

In 1851, France, a pioneer in many areas of health and science, called the First International Quarantine Congress. Within a year 137 international quarantine regulations were adopted. Within 14 years, about the time of our Civil War, the agreement collapsed completely. The world had to wait until 1902; then the first truly international health office was established in Mexico City—the Pan American Sanitary Bureau. This multinational effort grew. By 1924, 24 nations of the Americas agreed to the Pan American Sanitary Code. This organization lives today as the Pan American Health Organization (PAHO), a major sector of the World Health Organization.

It was only in 1903, a year after the pioneer western hemisphere effort, that the nations of the world agreed to a single International Sanitary Convention.

In 1919, the International Office of Public Hygiene (the so-called "Paris office") was established to deal with quarantines and the notifications of communicable diseases.

Following World War I, the League of Nations was founded. Ironically, its health organization which appeared almost as an after-thought of the League's founders, was its most successful effort. Its budget never exceeded \$400,000 of which only \$200,000 was governmental contributions. At no time did annual contributions to these efforts reach or exceed \$300,000. Not being a member of the League, the United States supported the efforts of the "Paris office," that is, the International Office of Public Hygiene, and not the League's health organization. Our total contributions to the League's international health organization was about \$6,000.

After World War II, the United Nations replaced the League and a new international health agency was born—the World Health Organization.

What is WHO?

The World Health Organization, WHO, was established on July 22, 1946, as a specialized agency of the United Nations. The United States became a member of WHO on June 21, 1948. Thus, WHO began operations at

a time when international cooperation was reaching a low ebb. The superpowers were at a stand-off. Other powers chose sides. The non-industrialized nations, poor and in need of health assistance, became an area of competition for influence. Unfortunately, even today WHO assemblies too often serve as a verbal battleground of conflicting social and political philosophies rather than calm and collaborative scientific convocations seeking to establish reciprocal help. Nonetheless, great achievements have been made. These are thanks to WHO's health leaders, two outstanding Directors General and their staffs who, in just a score of years of operations, have contributed to the remarkable changes in the world health picture. Preventive medicine forges forward. Research has been fostered. Sanitary, technical and scientific standards have been established. Expert committees have documented their updating consensus in critical areas of health. Many health workers have been trained. Over 25,000 WHO fellowships have been given. Considering the small amounts of money available, the dividend yield has been great. For small nations, particularly, miracles of health have been achieved.

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APPENDIX II

World Health Organization Financial Support
and the U. S. International Health Support Effort

It is important to understand how WHO is supported financially and how it spends that money.

Data over a ten year period shows the evolution of the WHO budget and U. S. assessments:

TABLE 1.-- RECENT EVOLUTION OF THE WHO BUDGET AND U.S. ASSESSMENTS¹ (CALENDAR YEAR)

Year	WHO regular budget	Percent increase over previous year	U.S. assessment	Percent U.S. assessment to regular budget
1971 ²	\$73,230,000	8.2	\$23,648,660	30.87
1970.....	67,650,000	8.9	21,630,810	30.87
1969.....	62,121,700	10.7	19,533,130	31.20
1968.....	56,123,000	7.8	18,075,620	31.20
1967.....	52,075,600	11.7	16,627,320	31.20
1966.....	46,481,800	12.6	13,578,420	31.20
1965.....	39,507,000	14.4	12,327,120	31.29
1964.....	34,542,750	13.6	10,852,040	31.29
1963.....	30,394,160	22.2	9,611,280	31.12
1962.....	24,863,800	25.7	7,637,430	31.71
1961.....	19,780,448	16.9	5,999,700	31.70

¹ Figures obtained from Office of International Health, Public Health Service. In 1958 a statutory limitation was placed upon the U.S. payment which required that for any fiscal year it could not exceed 33 1/3 percent of the total assessments of the active members of WHO for that year.

² Proposed.

We note that while increases have occurred each year, there has been a generally downward trend since 1963 in percentages, so much so that, with inflation of six to seven percent per year in medical services (the rate in the U. S. has been higher), there has been little, if any, increase in WHO health "buying power" in the past few years.

How Much Does the U. S. Contribute in Dollars

The U.S. share, the largest of any nation (shares are measured by a complex formula of over 35 indices of a country's well-being) has remained about 30%. (The Soviet Union is about 12%, United Kingdom about 7%, France about 5%, Federal Republic of Germany 4%, etc.) Most of the underdeveloped nations contribute less than 1%.

Presently, the U.S. assessment is about \$24 million.

What does this mean in terms relative to its economy?

It is approximately:

- One dollar out of every 800 dollars of the Federal Government's health appropriation.
- One dollar out of every \$2,000 which U.S. citizens spend for all forms of health care;
- Less than 50 cents of each \$100 of overall U.S. technical assistance to the lesser developed countries.

As we have put it before, our contribution is equal to the cost of one 747 aircraft, or 5 hours of cost of battle in Indochina in 1969.

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Congressman Carey of New York recently stated "The budget of the World Health Organization is one-tenth that of the New York City Health Department". New York's population is 8 million. WHO's \$73 million regular budget is taken up in international health programs for nearly four billion people.

What Other Funds Does WHO Administer?

Funds collected by UNICEF, monies from PAHA, and special contributions for technical and special research programs are also administered by WHO. Table 2 below shows for a typical year, 1968, how other programs are channelled through WHO.

TABLE 2.—SOURCE AND AMOUNT OF TOTAL FUNDS ADMINISTERED BY WHO, INCLUDING TOTAL U.S. CONTRIBUTIONS (1968)

Source of funds	1968 obligations for activities funded directly or indirectly by WHO	U.S. contributions to WHO activities—1968
Regular budget	\$56,123,000	\$17,989,000
UNDP: Expanded program of technical assistance U.N. Special Fund	7,616,526	3,046,810
Voluntary funds for health protection	6,922,419	1,288,930
International Center for Research on Cancer	1,600,000	150,000
UNICEF	17,000,000	12,000,000
PAHO (regular and other)	14,589,460	8,479,825
Total	107,073,731	43,249,645
Funds-in-trust	2,860,499	

These additional programs are administered and coordinated by WHO with its other projects.

Senator HUGHES. The Chair calls Dr. Ehrlich, Director of the Office of International Health of the Department of Health, Education, and Welfare.

STATEMENT OF DR. S. PAUL EHRLICH, JR., DIRECTOR OF THE OFFICE OF INTERNATIONAL HEALTH OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Dr. EHRLICH. Mr. Chairman, it is a pleasure for me to have the opportunity to appear before this committee as you consider the health needs and resources of the developing countries. The timing is especially fortunate since I just recently returned from participating in the 25th World Health Assembly in Geneva.

The World Health Organization is playing an ever increasing role in the search for better health for all the peoples of the world and I comment further on this later in my statement.

While I realize these hearings are primarily directed to the health problems of the developing countries, my remarks today will necessarily consider these matters in a broader context. This more general approach is essential to a proper perspective of the many multinational interrelationships involved in health.

The health problems of the developing countries and indeed, any country, cannot be resolved in a vacuum since they are an integral part of the total national society in which they exist, and equally important, reflect international patterns of disease and health conditions.

Health is truly universal in character and there is a striking similarity of problems among all nations, despite obvious economic, social, and political differences.

We are all aware of debate going on in this country concerning our own problems in this field. On balance it is no doubt accurate to say that the American people are among the healthiest in the world. Nevertheless as Secretary Richardson has said:

Compared with other industrialized nations, the record of the United States in prolonging life expectancy and preventing infant mortality is not impressive. By these two measures * * * it is abundantly clear that many Americans are receiving inferior care and many of our basic health care needs are not being met.

The benefits of health care are unevenly distributed among the people of this country, costs for health services have spiraled higher and higher, and our shortages of professional health personnel are familiar, and as yet, unsolved problems. This situation and these facts are not strikingly disparate from many other countries, developing or developed, rich or poor, large or small.

This administration's proposals in the health field, now pending before Congress, are important steps to help meet these problems. They are designed to fit the unique cultural and societal patterns in the United States while drawing on experience from the other parts of the world.

It must be accepted that medical advances are no longer reserved to the privileged and sophisticated developed countries. There is a commonality of purpose and need that make it possible for all to contribute to the goal of universal better health. The developing countries are contributing to these efforts alongside the more advanced nations.

There is no monopoly on brains, skills, and ingenuity when it comes to health. The United States has produced many Nobel Prize winners in medicine but has much to learn from other countries in the delivery of health services and the utilization of manpower. Each nation has its strengths and weaknesses and the sharing of knowledge and experience has been an enduring medical tradition.

The miracles of technology in transportation and communication have caused the world to shrink in many ways, not the least of which is the resultant mobility of disease. The lives of Americans are affected by health conditions in the remotest corners of the world.

Traditional quarantine practices are no longer adequate to protect endangered populations from epidemics occurring in a remarkably transient world society. New and lethal viruses are being identified thousands of miles from our shores but there can be no guarantee they may not become unwelcome immigrants here.

In short, it is self-evident that in the world of today it is impossible to make a distinction between domestic and international health—the two are one. It is a truism for both the developing and the developed nations.

There is no panacea to offer any country for the solution of its health problems. The principal hope for, if not the very survival of, mankind depends on the exchange of medical knowledge and personnel in the health professions. This hope for the future is nourished by the inherent capacity of health to rise above ideological, political, and economic differences.

It is this spirit of humanitarian cooperation that has stimulated man over the years to put aside all other differences when it comes to matters of health. It pervades all societies.

In health, there has been no Iron Curtain. The recent signing in Moscow, during the President's summit meeting with the Soviet leaders, of a new agreement for cooperation in medical science and public health was a most significant event. It marked a further giant step in the organized cooperative program in health between the United States and the Soviet Union which dates back to 1956, an arrangement that has survived many periods of strained diplomatic relations.

The new agreement is a major expansion of our past activities and we will now embark on a program of planned, long-range collaboration in mutually agreeable subject areas of high priority to both countries. My point in singling out this example of international cooperation is simply this—the preservation of human life and the alleviation of suffering and pain speaks a common language that transcends the geographical, political, and cultural barriers among all nations.

One of the most important avenues of the modern world for advancing the health of all people is the World Health Organization. Too many people are only vaguely aware of the past and present role of this organization in world health, and more importantly, its ever-increasing potential as a major factor in accelerating the rate of progress in enhancing the well-being of all mankind.

I believe the definition of health as set forth in the WHO constitution provides a perspective and conceptualization of health which should be basic to any discussion of this subject. It reads, and I quote,

"Health is a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity."

Using this principle as a guide for its programs and policies, WHO has made a unique contribution to worldwide advances in health. Despite its modest budget as measured by the tasks it faces, WHO has, in many instances, provided the essential leadership and stimulation necessary to attack the national, regional, and global health problems of a constantly changing world.

The Organization commands a prominent position of influence on the health conditions of every country and the impact of its policies and programs is of much larger proportion than the size of its staff and its financial resources would indicate.

The United States has consistently supported a leadership role for WHO. Moreover, it is the policy of this administration to increasingly channel foreign assistance through voluntary contributions to multi-lateral organizations. It is important then that the United States actively and energetically participate in the affairs of the Organization.

The responsibility for the professional and technical liaison between the United States and WHO is delegated to the Department of Health, Education, and Welfare. This clearly is one of our more important international health functions.

Recently we have taken the lead in the various WHO forums to press for a more specific definition of priorities for program planning purposes. We have identified four critical areas deserving a higher concentration of attention and resources by the Organization—first, the development of basic health services; second, the expansion of health manpower; third, disease control; and fourth, environmental health.

These priorities indicate our conviction that there is a need to develop and strengthen the health infrastructure and delivery systems of all countries, both developed and developing, and we are using our influence to direct WHO programs resources to these problems.

I wish to emphasize once again the commonality of purpose and need in these areas, and, although it is generally assumed that WHO assistance is predominantly oriented in favor of the developing countries, the United States has much to gain and learn from the experience and data generated by these WHO activities.

There is no question that our motivation for involvement in international health is a mixture of both the traditional American heritage of humanitarianism and of self-interest and self-preservation.

All of our so-called international health activities, in the final analysis, are extensions of our domestic responsibilities. I have already commented on the international interrelationships of health in a modern technological world society and our vested interest in strongly supporting the World Health Organization.

Our concept of foreign assistance in health has also undergone a drastic change with the realization that the United States is not uniquely qualified to be an exporter of health expertise. Our role is more properly one of a partner in seeking ways and means of combining resources to jointly solve problems of mutual interest. Bilateral cooperation is a better term for describing these programs than foreign assistance.

It is significant that bilateral cooperation has been rapidly expanding in recent years. The United States-Japan cooperative medical science program and the U.S.-U.S.S.R. health cooperation program are only two examples of the Department's bilateral international health activities which provide for mutual benefits.

The professional support furnished by HEW to the Agency for International Development is a resource rich in knowledge and experience useful to our domestic program planners. A major area which typifies this principle of "feedback" is population and family planning. The experience of other countries, and in many instances, primarily the developing nations, has contributed immeasurably to the fund of knowledge on this critical problem that has served to guide us to the development of our own policies and programs.

Other examples are the overseas research programs of the National Institutes of Health and the other health agencies of the Department which are directed toward the fulfillment of our domestic missions.

The National Library of Medicine's activities in international biomedical communications are designed to benefit the American medical community and at the same time advance the health sciences throughout the world through the interchange of medical knowledge.

The consumer protection programs of the Food and Drug Administration have played a major role in improving the standards of food and drugs not only in this country but in many other nations. It is much more sensible to educate the producing countries in the methods and procedures necessary to meet suitable quality standards than to run the risk of tragedy striking down innocent American victims where the only recourse is then the withdrawal of a product already distributed.

Import controls at best can only be based on sampling techniques. International efforts to identify and eliminate the problem at the source is far more effective and realistic.

There are many more illustrations I could cite on the international involvement of HEW which are relevant to the health problems of the developing and developed countries, including the United States. In the interest of time, I will be happy to submit for the record a more detailed resume of our international programs and responsibilities.

Senator HUGHES. Thank you very much. We will be happy to receive it.

(The information referred to follows:)

SUMMARY OF HEW INTERNATIONAL HEALTH ACTIVITIESI. OFFICE OF INTERNATIONAL HEALTH

The Office of International Health, Office of the Assistant Secretary for Health and Scientific Affairs serves as the focal point in the Department of Health, Education, and Welfare for policy guidance and program coordination relating to international health. The Office provides assistance and guidance to the international activities of the health agencies, prepares analyses and evaluation of selected international health policies and programs as a resource for domestic program planning of the Department, and provides professional and technical assistance to the Department of State. The Health Services and Mental Health Administration and the Food and Drug Administration each have a small international unit and the Fogarty International Center serves the National Institutes of Health as a coordinating point for international activities of that Agency.

II. PURPOSE AND SCOPE

HEW participation in international health affairs serves three principal purposes:

1. the improvement and protection of the health of the American people;
2. the exchange of information and experience to enhance our own health capabilities and to contribute to the advancement of health around the world;
3. the support of U.S. foreign relations, especially with regard to bilateral and multilateral health matters, through the provision of professional advice and assistance to the Department of State.

All three purposes directly relate to the fundamental premise on which all HEW international health activities are based -- the health of the American people is inseparable from that of all people in the world.

HEW international health activities may be grouped under seven general headings:

1. Research
2. Official Bilateral Agreements
3. International Training and Fellowships
4. Consumer Protection
5. Disease Prevention, Surveillance, and Control
6. Assistance and Consultation to other Departments and Agencies
7. Participation in International Organizations

The scope of HEW international health programs defies precise measurement. The activities conducted in each of the above seven categories are diverse and reflect the broad span of domestic health interests. Since many of the activities are completely interdigitated with domestic programs, identification of where the international component begins and the domestic ends is virtually impossible. This situation applies equally to efforts to estimate the amount of funds expended by the Department on international health. Expenditures for staff costs and program operations may be made in the United States or abroad and the funds in many instances are an integral part of domestic program budgets.

III. HEW INTERNATIONAL HEALTH ACTIVITIES

Brief descriptions of major HEW activities having a clearly identifiable international health relationship are listed below grouped under the seven general category headings.

RESEARCH

A. Overseas Research Grants and Contracts

Research grants and contracts are made to foreign institutes and scientists as extensions of domestic responsibilities. The research areas parallel those of domestic programs and take advantage of foreign resources which offer unusual and unique research potential not available in the U.S. These research projects meet the same or comparable strict criteria and professional review as domestic grants and contracts. They are funded by both U.S. dollars and the Special Foreign Currency Program (U.S.-owned local currencies in certain countries).

B. International Centers for Medical Research and Training

A program of collaborative research and research training between five U.S. medical schools and selected counterpart foreign institutions. These centers afford environmental and medical conditions of scientific interest unavailable in the United States, to the U.S. investigator and his foreign counterpart. The program was initiated in 1960 and has provided continuity and stability for projects covering specific areas of reciprocal international research of mutual interest.

C. Overseas Research Laboratories

HEW is involved in three overseas research laboratories which are of direct interest to our domestic programs -- the Middle America Research Unit - Panama; the Central America Malaria Research Station - El Salvador; Cholera Research Laboratory - Bangladesh. The Department provides both funds and personnel to the programs of these laboratories and they constitute an important medical research resource to this Department.

D. WHO International Reference Centers

A number of HEW domestic laboratories serve as U.S. participants in the worldwide system of WHO reference laboratories in various specific disease categories. Funding is provided by WHO to support this work.

OFFICIAL BILATERAL AGREEMENTS

A. US-USSR Agreement on Health Cooperation

The US-Soviet Exchange Program dates back to 1958. Agreement was reached at the recent Summit meeting in Moscow for a major expansion of our past activities and to provide for a new program of long-term collaboration in mutually agreeable subject areas of high priority to both countries. The first areas of cooperation agreed on are cancer, heart disease, and health effects of the environment.

B. US-Japan Cooperative Medical Science Program

This program was established in 1965 to undertake a bilateral cooperative research effort in the biomedical sciences. The program operates through six scientific panels on cholera, leprosy, malnutrition, parasitic diseases, tuberculosis, and viral diseases.

C. US-Romanian Health Exchange Program

There has been a recent expansion in the official US-Romanian Exchange Program which is conducted under an overall State Department exchange agreement. This program consists primarily of the exchange of short-term and long-term individual scientists.

D. Other Bilateral Agreements

Less formally structured programs are based on cooperative scientific agreements with France and Australia. The U.S. and Mexico cooperate on a broad range of border health problems. Many other informal bilateral relations exist for cooperation in health.

INTERNATIONAL TRAINING AND FELLOWSHIPS

A. International Postdoctoral Research Fellowship Program

Postdoctoral research fellowships are awarded to young, promising foreign biomedical scientists to facilitate the sharing of knowledge and information between health research scientists of the U.S. and those of other countries. The Fellows are nominated by committees which have been established in about 40 foreign countries. The candidate must have a commitment of a position in his home country and have made prior arrangements for research training under a qualified preceptor in an American institution.

B. Visiting Scientist Program

The objective of this program is to bring to the National Institutes of Health outstanding scientists from many nations to work in collaboration with NIH counterparts on research problems. The appointment is by invitation only

and is not a competitive application selection process. The visiting scientist occupies a regular allocated position in the institute sponsoring his invitation.

C. UN/WHO/PAHO Fellowship Program

The Department arranges appropriate programs for UN Fellows receiving awards for study and training in the United States. The majority of such fellowships in the health field are sponsored by the World Health Organization and the Pan American Health Organization. U.S. nationals participate in this program for study in foreign countries.

D. Global Community Health Program

This is a professional career development program involving one or more years of academic training integrated with precept training generally leading to a Master of Public Health or M.S. degree in a health-related field. Its purpose is to prepare individuals to have the planning, management and operational competencies necessary for the organization and operation of community-wide or global-scope health programs and systems.

E. Conference and Seminar Programs

These activities are designed to identify medical, social, economic, and legal problems in the health field and provide understanding and insight into these problems through international conferences, seminars, work shops, etc.

F. Special Exchange Programs

The Department provides education and training assistance for certain foreign visitors coming to the United States under the auspices of the Agency for International Development. Other training programs are supported by the Special Foreign Currency Program.

G. Overseas Work/Study Assignments

This program sends a limited number of HEW health professionals on assignments up to one year in foreign laboratories.

universities or other institutions for a combined work-study experience in a special field directly relevant to domestic responsibilities.

CONSUMER PROTECTION

A. Regulation of the Importation of Food, Drugs, and Cosmetics

The Food and Drug Administration is charged with assuring that all imported products in these categories meet the same standards and requirements as products manufactured domestically for interstate commerce. Imported food, drugs, and cosmetics worth approximately one billion dollars enter the United States annually.

B. Regulation and Licensing of Imported Biologics

The Food and Drug Administration conducts foreign anti-biotics inspections to insure that those exported to the United States are safe and are produced in a manner to assure their quality. Representatives of FDA conduct annual factory inspections of the foreign drug manufacturers. Only those firms who propose to ship their drugs for the purposes authorized by the Food, Drug, and Cosmetics Act are permitted to take part in the certification and inspection program.

C. Foreign Color Inspection

All colors to be imported to the U.S. for use in food and drugs must be certified by the Food and Drug Administration. At the present time, such producers are located in England, Mexico, Germany, France, and Switzerland.

D. Shellfish Certification Program

This is a voluntary cooperative program presently operating between the U.S. and Japan and Canada. This is a certification program to insure that shellfish are harvested and processed in accord with standards prescribed by the Food and Drug Administration.

DISEASE PREVENTION, SURVEILLANCE AND CONTROL

A. Foreign Quarantine Program

This program is operated to prevent the entry of persons with immigrant and non-immigrant visas with medical conditions that could result in their becoming a public charge. The program also is responsible for detecting and preventing the introduction of communicable diseases into the United States.

B. Epidemiology Intelligence Service (EIS)

The Epidemiology Intelligence Service of the Center for Disease Control provides emergency epidemic assistance and epidemiological consultative services to the States and local health departments and to foreign countries as requested and appropriate. The EIS has a national and international reputation and has received commendations from a number of foreign countries.

ASSISTANCE AND CONSULTATION TO OTHER DEPARTMENTS AND AGENCIES

A. HEW Assistance to AID

HEW provides personnel and services to AID under several different administrative arrangements to assist in the conduct of U.S. foreign assistance in health areas of mutual interest. The Department has major responsibilities under these arrangements in the operation of AID programs including the world-wide Malaria Eradication and Malaria Research Program; the Smallpox Eradication and Measles Control Program in West Africa; the organization and activation of the John F. Kennedy Memorial Center in Monrovia, Liberia; the Population and Family Planning Program; Health Planning and Health Sector Analysis; Environmental Sanitation and Water Supply; Nursing; and Health Education. These are all health fields of direct concern to HEW. For FY 1972 it is estimated AID will reimburse HEW nearly \$5 million for these consultative and technical assistance services.

B. Foreign Disaster Emergency Relief

Earthquakes, floods, epidemics and other disasters have been occurring throughout the world with unfortunate frequency in recent years. HEW provides health and medical relief assistance in such instances, primarily at the request of and through the Department of State and AID.

C. Assistance to Department of State in Health and Medical Affairs

The professional health and medical expertise of HEW is made available to State Department in the consideration of technical health aspects of foreign relations and foreign policy.

PARTICIPATION IN INTERNATIONAL ORGANIZATIONS

A. Liaison with the World Health Organization (WHO) and the Pan American Health Organization (PAHO)

By a delegation of authority from the Department of State, HEW serves as the official U.S. Government liaison with WHO and PAHO on all professional and technical matters. The Director, Office of International Health, traditionally is appointed by the President to represent the U.S. during our tenure on the WHO Executive Board. HEW is responsible for assisting the Department of State in the development of U.S. positions and policies for and the organization and preparation of the Delegation to the annual World Health Assemblies and PAHO conferences. The chairmen of such delegations are always HEW health officials. HEW has been a major contributor to WHO world programs such as malaria and smallpox eradication, cholera control, and monitoring adverse drug reactions.

B. Detail of HEW Personnel to International Health Organizations

In view of both U.S. professional and financial interests in international organizations, it is important that a reasonable proportion of Americans be on their staffs, especially in selected key positions. Under available authorities, small numbers of HEW health professionals are detailed to international health organizations, primarily WHO and PAHO, to assure appropriate maximum U.S. influence

in program planning and execution. HEW also assists in the recruitment of nongovernmental American health professionals for consideration for appointment by WHO and PAHO.

C. Participation in Other International Health Organizations

HEW plays a major role in the health-related activities of other global and regional organizations. These include responsibility for the Health Project sponsored by the Committee on Challenges of Modern Society of NATO, participation in the health activities of the Central Treaty Organization (CENTO), the Organization for European Cooperation and Development (OECD), United Nations Children's Fund (UNICEF), Food and Agriculture Organization (FAO), to name but a few.

IV. HEW PERSONNEL ASSIGNED FULL-TIME TO INTERNATIONAL HEALTH DUTIES

The number of individuals in HEW permanent positions with full-time responsibilities in international activities as of June 1, 1972 are 364. However, since DHEW's overseas activities develop out of its domestic missions and responsibilities, it is difficult to identify and compile the number of man hours of work of other employees who, on a part-time basis, manage and direct overseas activities or provide consultation or administrative support as needed to these activities. The Special Foreign Currency Program is an example of such activity; it being implemented almost entirely by 100 or more project officers for individual projects on a part-time basis. Similarly, the eight persons reported by the Foreign Quarantine Program are only a fraction of the personnel stationed in the United States conducting these activities. Thus, the personnel as well as the funds identified with international health activities represent the minimal rather than the maximum involvement of this Department.

PREPARED IN OFFICE OF INTERNATIONAL HEALTH
June 9, 1972

Dr. ERLICH. In conclusion, let me say that the Department of Health, Education, and Welfare welcomes this expression of congressional interest in the importance of international health. You may be assured we fully recognize and accept the premise that the health of the American people is inseparable from that of all people throughout the world. It is in this broad context that we view our efforts to combat the common enemies of disease and disability through international cooperation.

Thank you, Mr. Chairman.

Senator HUGHES. Thank you very much, Dr. Ehrlich. Are you familiar with any of the testimony that was received yesterday?

Dr. EHRlich. Only very generally.

Senator HUGHES. Let me ask you a couple of things just to get your comments. First of all, have you had a chance to review Senator Javits' bill (S. 3023)?

Dr. EHRlich. Yes, I have.

Senator HUGHES. The bill states that the training of a host country's personnel must be an integral part of any aid program upon which we embark. Our witnesses yesterday said that in developing countries where the physicians cannot maintain their traditional role, the training of auxiliary health personnel was the answer.

That seems to be the essence of their testimony. Would you agree that the use of auxiliaries is the key?

Dr. EHRlich. I think it is certainly one very important aspect of meeting the health manpower problem. I think in countries where the ratio of population to physicians is something like 1 to 50,000, chances of them ever, or in the foreseeable future at least, developing a ratio that is more favorable is almost out of the question, even with a very large influx of resources.

So we must look to personnel trained in much more modest fashions than the training a physician receives, and entrust to these people an increasing proportion of the types of things that have traditionally been done by physicians.

Senator HUGHES. Dr. Ehrlich, is it true that the programs of the Department of Health, Education, and Welfare are legally required to be directly related to the health of the American people?

Dr. EHRlich. Yes, sir, that is correct.

Senator HUGHES. Could you explain that to me? What does that mean in your international programing?

Dr. EHRlich. It means our programs must be able to demonstrate, our international programs, that is, that they are contributing directly to the health of the American people.

Senator HUGHES. Give me an example of that, if you will.

Dr. EHRlich. There is one example I might use.

Senator HUGHES. Then give me two examples, one that is and one that is not.

Dr. EHRlich. The U.S.-U.S.S.R. bilateral agreement. It is our view that this cooperation is going to enhance U.S. programs in the fields of cardio vascular disease, cancer and environmental health, three areas that we have initially agreed with the Soviets to concentrate on. They are high priority in our country, and by working collaboratively with them it is going to enhance the efforts of both countries to develop research programs in these fields.

The second program, the U.S.-Japan program, grew out of a presidential initiative in 1965. This program was designed to be a collaborative research program that dealt primarily with the problems of the people in the Western Pacific.

In this instance, it clearly was outside the authority of the Department of Health, Education and Welfare and we had to obtain a Public Law 86-610, section 5, presidential delegation of authority for our participation in that program.

Senator HUGHES. How much money are you spending on these programs internationally?

Dr. EHRLICH. Totally?

Senator HUGHES. Yes.

Dr. EHRLICH. We have estimated that the Department this year will spend approximately \$45 million on international activities.

I am hesitant to use this figure, however, because, as I have indicated in my testimony, the domestic and international activities are very closely interwoven, and it is very difficult to separate out what might be identified as international expenditures versus domestic expenditures.

This figure is really an estimate of what proportion one might feel could be identified as international expenditures, but it is a very difficult problem to separate the two.

Senator HUGHES. Could you furnish for the subcommittee three or four examples of what may be a cross section of what you consider international ventures under your funding and under your authority?

Dr. EHRLICH. Yes, I certainly can.

Senator HUGHES. Would you do that for the record, rather than trying to outline them here?

Dr. EHRLICH. Yes.

Senator HUGHES. Please furnish them to us so we can get some idea of what you are doing in the field.

Dr. EHRLICH. We will include examples of all of our international activities in the detailed summary I offered to submit for the record at the conclusion of my statement.

Senator HUGHES. Does this restriction, which I would call a restriction, mean that HEW then can't now be directly involved in a developing country's health program?

Dr. EHRLICH. No, not necessarily. We are involved, but generally it is using the authority of and with the cooperation of the Agency for International Development. For example, HEW is conducting a program coordinated with the World Health Organization for the eradication of smallpox in 20 west and central African countries. It is an AID program, but it is operated almost entirely by HEW.

Senator HUGHES. Whose money are you using?

Dr. EHRLICH. AID's money.

Senator HUGHES. The contract is with the developing countries?

Dr. EHRLICH. That is right.

Senator HUGHES. That is an interesting arrangement, isn't it?

It is true with the World Health Organization?

Dr. EHRLICH. It is coordinated with the world wide eradication program that the WHO takes responsibility for. This is a voluntary contribution to that program on the part of the United States by taking the responsibility for the activities in these 20 west and central African countries.

Senator HUGHES. Do we have any other involvement in developing countries? Could you give me an example?

Dr. EHRLICH. In the malaria field in a similar way, utilizing AID resources and working through AID, the Department has been involved in the conduct of some of the malaria eradication efforts.

Senator HUGHES. What do you mean involved? Is this in an advisory capacity?

Dr. EHRLICH. Yes, we have personnel assigned overseas to developing countries working with local nationals on the planning and implementation of programs, in this case to eradicate or control malaria.

Senator HUGHES. Are they paid by HEW, or by AID?

Dr. EHRLICH. They are paid by HEW, but then HEW is reimbursed by the Agency for International Development. It is on the basis of an interagency agreement.

Senator HUGHES. We appropriate the money to AID and you do the work. Do they transfer the money over to you?

Dr. EHRLICH. That is right.

Senator HUGHES. You have already indicated the budget. You said it is hard to sort it out. How many full-time employees do you have? Can you sort that out, or do they have different assessments that make it difficult?

Dr. EHRLICH. Again, there are many people working in both areas, and it is difficult to allocate what proportion of their time might be properly identified as international as opposed to domestic activities. We do have some figures available which I would be happy to submit for the record if you would like.

Senator HUGHES. I would appreciate it.

Dr. EHRLICH. I will include this information in the resume of HEW international activities which will be submitted.

Senator HUGHES. Do you have some sort of relationship with the schools of international health?

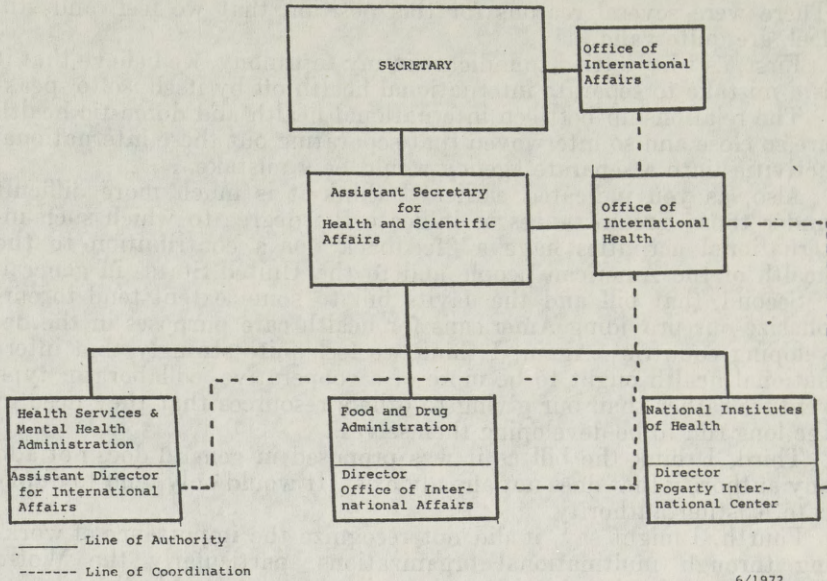
Dr. EHRLICH. Oh, yes; the Office of International Health is a part of the Secretary's office. Our principal responsibility is a staff responsibility to the Assistant Secretary for Health and Scientific Affairs, but in addition to that we coordinate the activities of the three health agencies—NIH, FDA, and the Health Services and Mental Health Administration.

Senator HUGHES. Do you have some sort of an organization chart that you could give to us for a reference?

Dr. EHRLICH. We could supply that.

(The information referred to follows:)

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
 ORGANIZATIONAL CHART SHOWING
 INTERNATIONAL HEALTH RELATIONSHIPS



6/1972

Senator HUGHES. I am having a little difficulty following you. I would like to look at an organizational chart. Generally, what do you think we ought to be doing in Congress in this field? Do you think we ought to be doing a lot more, and, if so, how?

Dr. EHRLICH. That is a very difficult question and one that certainly we have spent a good deal of time thinking about in the past several years, but I am not sure we have any good answers. I think that, as Dr. Grupenhoff indicated, earlier, the current action proposed by the House and supported at least in part by the Senate will have a very negative impact on international health, that is, the reduction of the U.S. contribution to the World Health Organization from about 30.8 percent to 25 percent.

This kind of unilateral action is, of course, viewed around the world with a great deal of dismay. That is one aspect of it, but secondly, the World Health Assembly that I have just returned from, approved the budget for 1973 which anticipated a full contribution from the United States.

If this 25 percent limitation is made effective July 1, 1972 or January 1, 1973, the organization will immediately find itself some \$5.5 million short of the program and budget that have just been approved.

Senator HUGHES. Do you think, for example, that an international health agency, as proposed in Senator Javits' bill, should be created?

Do you think this would help us in meeting some of the problems? Would it increase the visibility of the international health programs? Would it help the American people understand what we are doing? Why we are doing it? Would it help not only increase our contributions, but our ability to benefit from their services?

Dr. EHRLICH. We testified on a very similar bill in the House last year, the Carey-Fraser bill, and recommended that it not be enacted. There were several reasons for this position that we feel, and still feel, are quite valid.

First, as I have tried to indicate in my testimony, we believe that it is a mistake to separate international health off by itself, so to speak.

The relationship between international health and domestic health are so close and so interwoven that separating out these international activities into a separate agency would be a mistake.

Also, as you indicated earlier, I think it is much more difficult under those circumstances to indicate the degree to which such international activities have a "feedback" or a contribution to the health of the American people and to the United States in general.

Second, that bill and the Javits bill to some extent tend to emphasize our providing Americans for health care purposes in the developing countries. Again, I think we feel quite strongly that international health ought to be more of a cooperative, collaborator type venture rather than our giving to others resources that they need in the long run to be developing themselves.

Third, I think the bill as it was proposed in general does not add any authority that does not already exist. It would only tend to duplicate existing authority.

Fourth, I might say, it did not recognize the importance of working through multinational organizations, particularly the World Health Organization, in attempting to meet these problems.

So, for these reasons, we were opposed to the Carey-Fraser bill, and I think they would be equally applicable to the Javits bill.

Senator HUGHES. I have had a strange experience with the Department of Health, Education, and Welfare, not just in this subcommittee, but in the overall Labor and Public Welfare Committee. Since I have been in the Senate for the last 3½ years, not once has HEW supported a program that has been developed in the committee. They have always opposed it. Often they have the authority under the law as it is written, but they don't want to use it. Usually they have opposed increased funding.

I really find that a very strange set of circumstances in the field of health. I have found it in alcoholism, in drugs, and in international health. You know, it almost seems as if we are constantly fighting with you over their bills.

Everyone that has been here testifying has said we are not doing enough. Even if we supplemented this with WHO appropriations to the fullest advantage, there would not be near enough in what is needed in increased health.

You don't want any new legislation. And apparently you don't want any more money. Can you tell me what you expect us to do under these circumstances, Doctor?

To say the least, I am disappointed for you to say we are doing enough. I am disappointed that you think we are satisfying all the needs we can meet and that we are contributing and receiving all that we can in international health.

Dr. EHRLICH. I have tried to indicate in my statement that we recognize there is much more than can be done. I think the reasons we have been opposed to the Carey-Fraser bill and, as I feel, the

Javits bill, are for good reasons, reasons that are important in terms of how we conduct ourselves as the largest nation in the world internationally.

Senator HUGHES. Would you help us write a new bill that does what you want to do and in the way you want to do it and to the extent it ought to be done?

Dr. EHRLICH. We will cooperate with the committee in any way that would be useful.

Senator HUGHES. Thank you very much. I don't think Senator Javits has any proprietary pride in his own bill. We ought to be developing international programs between various agencies of our own government, the World Health Organization, as well as the various foundations which are doing a great deal in international health. Somehow we should get this perspective into the congressional attitude where it has apparently not been before in history.

I have been shocked to find out that we are not utilizing the health field and the expertise that is available in the health field throughout the world, not only to alleviate the pain and suffering of mankind but for the diplomatic use and the obvious contributions it makes to world peace. There is such a great need for it.

I would hope, that your department would make some sort of analysis of what the needs are and start from there. I am not talking about what the President thinks or what the Comptroller thinks the budget can allow.

I realize they will put prohibitions later on in the budget request, but our job is to try to stimulate creative legislation.

You know, as one Senator sitting here, I am suspicious. In spite of what you say I feel that much is needed and that existing law does not cover it. I don't challenge your professional opinion that maybe there should not be a separate agency. The purpose of separating is usually to increase visibility in funding.

If that is not how it should be done, fine. But if there is no other way we can increase funding and visibility in world health programs, what alternatives do we have? You know what I am trying to say, Dr. Ehrlich?

Dr. EHRLICH. Yes.

Senator HUGHES. I want to thank you for your testimony, and we will appreciate your cooperation. We will be in touch with you.

Dr. EHRLICH. Thank you very much.

Senator HUGHES. The Chair calls Dr. Lee Howard, of the Office of Health Technical Assistance Bureau, Agency for International Development.

Senator HUGHES. Dr. Howard, welcome. You have been very patient the last 2 days. You have been sitting here making notes through 2 days of hearings. You ought to be raring to go. It is all yours.

STATEMENT OF DR. LEE HOWARD, OFFICE OF HEALTH TECHNICAL ASSISTANCE BUREAU, AGENCY FOR INTERNATIONAL DEVELOPMENT

Dr. HOWARD. Thank you, Mr. Chairman. In response to your letter of invitation to discuss the improvement of health delivery

systems in developing countries and the involvement of the Agency for International Development in such programs, I have a brief statement to offer.

I would hope to respond very directly to your invitation on the problems of developing countries and particularly as I understood in the testimony yesterday, your interest in legislation as far as developing countries are concerned.

Senator HUGHES. Right.

Dr. HOWARD. I want to confirm and share what Dr. Ehrlich has said about international health cooperation, but I believe his statement has covered the broader aspects of how we relate to other Western countries and perhaps to the fact that we are part of the Western World. This relationship is not quite the same order of magnitude as the total world in which we live.

In that sense, I have focused very specifically to the interest expressed by the committee in the larger community of developing nations. I have also a more detailed analysis of the key health issues entitled "Key Problems Impeding Modernization of Developing Countries: The Health Issues," which I think tries to answer many of the questions which you raised yesterday. I will be glad to respond to any questions on this analysis.

Before I go further, Mr. Chairman, I would like to make a very brief aside, just to give some of my personal viewpoint. I have been now with the Agency for International Development for approximately 12 years. Part of that time, I served in the Philippines and in Southeast Asia, in preventive medicine and public health programs. Prior to that, I spent 5 years in voluntary mission hospitals in central and south India, and therefore experienced a perspective on the viewpoint of American voluntary assistance as applied to developing countries.

This will become understandable when you learn that I grew up in India, just as Dr. Carl Taylor did. Indeed, we knew each other as boys. It is rather accidental that we have ended up in these different areas of international health interest. Having grown up with the problem, we are able to offer an insight and viewpoint which I think directly addresses the very questions which you have raised in these past 2 days.

We are persuaded that approximately 90 percent of the population in developing countries do not have reasonably convenient access to an acceptable health delivery system through which elementary health services can be made available.

Yesterday Dr. Bryant pointed out that every country has a system, but modern western knowledge simply does not exist for 90 percent of the developing countries. It is to this problem that, I understand, your interest in possible legislation has been addressed.

Inaccessibility to adequate delivery systems today is a major barrier to the reduction of rapid population growth rates, the improvement of severe malnutrition among preschool children, and the provision of elementary services for disease prevention or treatment, unless we are talking about a major activity on a once or twice a year basis, like the smallpox or malaria program.

In May 1972, our agency launched a major program to find answers in this dilemma.

We sought a reference point in our effort to study the place of human biological and psychological problems as a bottleneck to national development. It is very closely related with what those nations' ideas are. We don't think health can exist in a country if there is not food to eat.

You don't get food to eat without agricultural cooperation. We don't think food can be brought to the market unless somebody builds roads, and we don't think people can understand health unless there is some education.

Therefore, we feel the level of well-being of the Nation is not something that can be focused in a narrow health emphasis alone, but in many factors which make for the growth of nations. It is in this sense, then, that we have tried to ask the question: How does the absence of health prevent peace in the world? How does it prevent the growth of nations per se?

In reviewing what various commentators have said about the goals of development we found that most developed countries and donor agencies do not share a unified consistent view. In fact, well-known international economists like Tinbergen and Galbraith often define preconditions for development but not the goals themselves.

Dr. Hannah, the Administrator of AID, has stressed that improvement in the quality of human life is the central purpose of the AID. Indeed, this is consistent with the World Health Organization definition of health as a state of physical, mental, and social well-being, rather than the absence of disease.

Thus our problem was to identify a means of measuring human well-being in relation to capital investment in agriculture and industry and other primary sectors, which is measured most frequently in traditional economic terms.

Gunnar Myrdal's "Asian Drama" provided a useful guideline by defining a dozen or so goals as seen by the leaders of developing countries themselves. This is a key point of our program, Mr. Chairman. We have tried to understand what it is that the countries themselves are looking for, not what we think another country should do.

And so, during the preliminary stages of our review we decided that the major health issue in developing countries may not be primarily the existence of a great burden of disease but rather the absence of a system through which any form of family planning, nutrition, or other health technology could be delivered to a reasonable majority of the population.

Based on limited data it has been determined that less than 10 percent of the populations of the low-income countries have reasonable access to any form of delivery system through which modern technology or service for family planning, nutrition, or health can be provided to those target groups who need them.

If a better resources-to-people ratio is an important goal the population growth factor cannot be effectively modified where less than 10 percent of couples of reproductive age can be reached in an acceptable manner.

Recently the Population Council provided data on cumulative accepters of contraceptive technology by women of reproductive age through 1969 as a percentage of ever-eligible women.

On the basis of data for 11 countries, Ceylon, India, Indonesia, Iran, Korea, Malaysia, Pakistan, Taiwan, Thailand, Tunisia, and Turkey, the Council study determined that the percentage of accepters among ever-eligible women was less than 10 percent in each country with the exception of Korea and Taiwan which were 43.1 and 40.4 percent, respectively.

Without elaborating on interpretation, the data suggest that somewhere between 80 to 90 percent of couples of reproductive age in developing countries on the average are still not practicing family planning and that there is a long way to go if there is to be any lasting effect on the reduction of national birth rates. This means that the people who need to be reached are not presently being reached.

Among the major international donors to population programs the development of effective delivery systems is now being urgently addressed in order to prepare for the new population technology now emerging as a consequence of research.

As we reach the point of achieving the capacity to produce an adequate food supply, health delivery systems must be expanded to insure access to more than 10 percent of those age groups who are malnourished, namely, the preschool children under the age of 5.

The issue here is not just one of food distribution, except in a situation of Biafra-like famine. Malnutrition is not caused by lack of calories alone but a complex of environmental factors among which intestinal infection from poor sanitation is a major one.

Infection precipitates malnutrition for two reasons: One, it burns energy more rapidly than the normal metabolic rate—7 percent faster for every degree of fever—and two, it prevents the absorption of calories from the intestinal tract. That is to say, Mr. Chairman, even if you put food in the mouths of hungry people, that food may not be absorbed, and that is a waste. Both problems result in enormous food-energy waste in all age groups. The most severe adverse effect is upon the whole current generation of preschool children in developing countries who are supposed to have benefited from the process of development thus far.

The failure of Western health knowledge or practice to reach more than a very small proportion of developing populations has been a surprise to many who thought that the miracles of modern medical science would cover the globe after World War II.

Chart I attached shows the demographic change in Ceylon during the period 1900–1960 when the birth rate remained at about 40 per 100 inhabitants throughout this period, while the death rate fell steadily from the period prior to 1910 through 1960. Moreover, this decline in mortality was not significantly affected even by the introduction of the international malaria control effort in 1948.

Using Ceylon as a prototype of many developing countries, it is recognized that the difference between continuing high birth rates and falling death rates results in population increase. While this is true, many have assumed that death rates decline because less people die, and they say that less people die because they are in better health through the application of modern medical science.

Although this sequence seems rational, historical evidence differs. Death rates in Ceylon fell for 50 years prior to the introduction of any major health technology, including the continued limited access of the population to any form of Western medicine beyond 10 percent of the population.

More dramatically, I think, the next chart, chart II, projects the world wide growth in population from the year zero to the year 2000 and shows the rise in population over a period of 400 years prior to 1971 with the log phase of population growth occurring long before the discovery of penicillin or before the introduction of mass health programs.

Therefore it is clear that a rise in population occurred long prior to the introduction of (a) penicillin, (b) mass health measures, (c) smallpox vaccination, or (d) the availability of general health services to more than 10 percent of populations in low-income countries.

How then does one account for the rapid rise in population in the last 400 years? It is because any factor which improves the resistance of humans to disease such as food availability, ground-water development, roads, transportation, housing, internal security, and education, improves his longevity.

Prof. Ansley Coale at Princeton correlated the first rise in the Indian population during the decade 1920-30 with the absence of famine only, a factor not associated with the introduction of any specific health technology. I am not speaking against the role of health. Being a physician myself, I believe that the influence of health professionals is extremely important through the dissemination of knowledge. However, I am saying, as a historical fact, we have not even begun to deliver health services to the world at large at this point in history.

Do developing countries themselves see this as a major development issue? Or is it just some idea of ours in Washington? One hundred and thirty member nations of the World Health Organization have officially recognized the need for mass integrated delivery systems through which the family can be reached with population, nutrition, or other health services.

At the World Health Assembly's 25th session in Geneva last month, where I joined Dr. Ehrlich as part of the U.S. delegation, research on the organization of community health services was endorsed by a majority resolution.

From the developing country point of view, integration of services is essential. With such limited resources autonomous vertical separate systems are precluded for family planning, nutrition, communicable diseases, et cetera. Integration permits economy, multipurpose manpower, and a potential vehicle for other development requirements; for example, functional literacy.

What is more important is that culturally and socially it is impossible to convince a family in a developing country that one has a genuine concern for them if one assists with only one service and not another, if one provides only food, but no medicine, or if one provides only contraceptives but no services for the children and the mothers.

Hypotheses which have emerged independently from the Agency's task force and from the Population Council study suggest a possible approach to the problem.

1. Explore the use of indigenous non-Western delivery systems which are in place and functioning largely without government support. Mr. Chairman, in Islamabad, Pakistan, in February of this year, I found the ratio of doctors to population to be about 1 to 50,000 on the average but the ratio between all health practitioners, including midwives, native practitioners and so on, is about 1 to 2,000, which is very good. The issue which Dr. Taylor and we have suggested is how we link up temporarily with these allies who are already there, who are not costing the central government a nickel, and whose cooperation could make it possible to bring elementary services to the population majority.

2. Approach majority coverage through retention rather than replacement of existing non-Western manpower networks.

What we are saying here is that it does not make sense to pay for and train a nurse and midwife in every village in India, when there is already one there making her own living delivering children in a way which is acceptable to the village population.

3. Select populations of 500,000 to 1 million which may serve as areas to explore the linkage between indigenous non-Western systems and Western manpower and management resources.

4. Do not rely initially on major capital investment. Utilize existing village level facilities.

5. Place minimal initial reliance upon existing medical institutions. Place major reliance on middle and low-level manpower—for example, auxiliary nurse midwives and resident field health delivery agents.

6. Select a national institution, a university or ministry, as a base for continuity of experimentation and leadership training.

7. Encourage multiple parallel experimentation both geographic and institutional—in order to avoid the time penalty of nonaction.

In other words, encourage multiple ways to get at the problem.

8. Encourage frequent lateral exchange of information through conferences and consultations with governments in developing countries.

9. Disseminate our experience in AID through a network of operational research and analysis efforts in cooperation with developing countries and other bilateral and multilateral aid organizations, as we have done in the past with the malaria program, sanitary engineering program, and smallpox. We have worked very closely with the Executive Secretariat of the World Health Organization and in this particular area of exchange we plan to have in the month of June exchanges with the WHO staff.

We feel that our priorities are very close to theirs. It has never been our style of operations to move ahead as though the World Health Organization did not exist. It is an extremely important organization in the entire field of international health.

In May 1972 the Agency began such a program on a pilot basis. While rapid progress is entirely possible, the Agency cannot move more rapidly than its limited resources permit.

Thank you very much, Mr. Chairman.

Senator HUGHES. What are your limited resources?

Dr. HOWARD. You are aware of the total budget for the AID program, which was also presented before the hearings on international health before a House subcommittee last summer, going from \$2.6 billion in 1966 down to \$1.7 billion for all international development activities.

Now into that must be fitted any activity which is carried out in agriculture, education, population, or whatever. As these resources are reduced, the Agency can do no other than to make hard choices and priorities within the limits it receives. As the overall aid ceiling goes down, the priorities for health have to be continuously modified and modified.

We do not have specific line items, as you know, for any sectoral development program for any major project activity within AID except for the population itself.

Senator HUGHES. You certainly have a budget within which you operate, Doctor?

Dr. HOWARD. Yes, indeed.

Senator HUGHES. What is it?

Dr. HOWARD. The budget we have is approximately—the figure that we had for 1972 was approximately \$57 million, and I may have to correct that figure for accuracy, other than an additional \$125 million for population programs.

But let me clarify, Mr. Chairman. We are not—there is no single Office in AID which is given a "health budget." We operate on a country programming process. Our programs are developed, for example, by our U.S. AID mission in the Philippines with the Government of the Philippines. Those activities which are mutually agreeable for a development activity are determined in the Philippines. Country program plans, such as the Philippines, are then sent back to Washington. Within the total number of country submissions 20 countries or 30 countries may want some health activity or some agricultural activity. We don't operate in the reverse pattern where Washington earmarks say \$50 million for health and then advises the field mission: "Now you plan a program for that magnitude of health budget."

This style of operation is essential because conditions on a country-by-country basis do vary greatly in the developing world.

Senator HUGHES. If I understand you correctly, then, in the last 5 years or so funds for population control programs have increased substantially. Is that correct?

Dr. HOWARD. That is correct. They have dramatically increased from about \$4 million in 1966 to about \$125 million in 1972.

Senator HUGHES. Your other health funds have decreased?

Dr. HOWARD. That is correct. We strongly endorse the need and the emphasis for this type of funding increase in family planning. Without this type of thrust, much else is compromised in the program. The problem that we face is that in decreasing health activities, we run into the political and image problem Dr. Taylor described yesterday, where many countries feel they can obtain funds for family planning, but perhaps not for nutrition or for a smallpox program or for a malaria program, and this distinction is often misinterpreted by developing countries as one of U.S. interest in the elimination of the population, but not of interest in the health situation.

This interpretation can be overcome by a great deal of talk, but it is not nearly as effective as a situation in which there is parity between the type of resources which are made available.

Senator HUGHES. Have you also lived in the Philippines?

Dr. HOWARD. Yes, for 4 years, between 1960 and 1964.

Senator HUGHES. You have worked in the outer islands?

Dr. HOWARD. Yes, I have. I have flown, I think, over most of the long stretch of those 3,000 islands that make up the Philippine Archipelago.

Senator HUGHES. I correspond with a friend who lives in one of the villages. He is a Catholic priest, working in a mission center there. They are working on their own population control program.

In his letters to me, he has indicated that much of the money we put into population control is caught up in the hierarchy of the political frustrations between the church and state. He maintains that our programs are not reaching down to the people. Did you find this to be a problem when you were there?

Dr. HOWARD. I did not run into that particular problem. I feel that the Philippine Government, like many countries, do have enormous problems in distributing their own resources out into the rural areas, but their health budget has been relatively small. Their population program is very new.

I think it is rather early to make a judgment as to the effectiveness of that program in the Philippines. At the present time it is a very early program and too early to judge what its impact is in the country as a whole.

Senator HUGHES. Well, suffice to say that my friend in the Philippines is disappointed in what has been achieved. There seems to be very little results in our birth control program.

Dr. HOWARD. I would confirm that general phenomena. In many developing countries, the key problems are often administrative and organizational ones which affect agriculture, education, health, or any program which is administered in a central government ministry or secretariat.

The lines of distribution are difficult to keep open, and there are many people who are left out on the end of the line with very limited resources.

But that is a problem which is common to many developing countries, with which AID is cooperating; the problem of good planning, the problem of how to help people achieve sound technical administration. It is a common problem, and certainly nothing that is distinctive of the Philippines at all.

Senator HUGHES. Are you currently supporting aid to any schools of public health or medical universities anywhere in the world?

Dr. HOWARD. Yes, we are indeed. Let me overstate the case a little bit. If we were not supporting schools of public health, Carl Taylor probably would not have been here yesterday. His department of international health has been funded through a 211-D grant through AID. It has been in operation approximately 10 years.

It is because AID resources have made it possible to keep people with international competence together to study health problems overseas that we have the keen and wonderful insight that Dr. Taylor brought to us yesterday.

In the same way, we have provided major support to international health programs in Tulane, the University of North Carolina, the University of Michigan, UCLA, the University of California at Berkeley. This is not a complete list, Mr. Chairman, but we have strongly supported schools of public health in this country in international health within the limits of our resources.

Senator HUGHES. Is that all of them?

Dr. HOWARD. That is not; there are others.

Senator HUGHES. Why don't you furnish a list of those for the record, if you will, please?

(The information referred to follows:)

SCHOOLS OF PUBLIC HEALTH TO WHICH AID CONTRIBUTES

1. John Hopkins
2. University of North Carolina
3. Tulane
4. University of California
5. University of California (Berkeley)
6. University of Hawaii
7. Harvard University
8. University of Pittsburgh
9. Columbia University
10. University of Michigan

Senator HUGHES. I would like to supply for the record any information you have concerning what other countries such as England, Sweden, Russia, or China are doing with respect to international health care. I certainly don't want a ton of material trucked in and dumped in our lap. I would not know what to do with it when I got it. Do you have an idea of what I want?

Dr. HOWARD. Yes, I do, Mr. Chairman. I might illustrate the point by indicating that about a month ago I did meet with the French counterparts in their technical assistance or AID program. I have met with the Western German counterparts, with the Belgian, with the British.

These countries are doing a considerable amount of international health programing. Indeed, most ministries of health overseas rely a great deal on consortia of external donors for their external assistance requirements. The World Health Organization is one important resource, but nevertheless, just one of several international resources.

(The information referred to follows:)

COUNTRIES THAT GIVE BILATERAL AID

Australia	<i>Communist Countries</i>
Austria	U.S.S.R.
Canada	Peoples Republic of China
Denmark	East Germany
France	Poland
Germany	Czechoslovakia
Italy	Hungary
Japan	Rumania
Netherlands	Bulgaria
Norway	
Portugal	
Sweden	
Switzerland	
United Kingdom	
United States	
Eur Eco Com	
Israel	
Republic of China (Taiwan)	

The exact amount of health AID given by these countries is not available.

Senator HUGHES. Also, Doctor, could you furnish for the record a list of developing countries where you are currently operating programs in health. What are your total expenditures in these programs? What is the expenditure in each country and please include a brief description of the nature of the programs.

Dr. HOWARD. I will do that

Senator HUGHES. How many professionals do you have involved in health programs in AID?

Dr. HOWARD. At our last count (June 30, 1971), we had—I have a figure here, Mr. Chairman, which I will find for you—the total number of health personnel (including population and nutrition) in the AID program all together is approximately 446. Of this number of individuals, AID employs 265 individuals, and from the U.S. Public Health Service we employ 170 individuals and 11 from other federal agencies.

The reason for this type of general breakdown is that the Agency for International Development serves, in a sense, like a mobilizer of resources, and these resources are throughout the entire United States, for example, the universities, the voluntary associations like the American Medical Association, the American Hospital Association, the American Association of Medical Colleges, and so forth.

We call upon the U.S. Public Health Service for certain specific help; for example, in the malaria program and in the smallpox program, as Dr. Ehrlich pointed out. But we do not feel that HEW is the sole resource of expertise in the United States. In that sense, one needs to call upon a wide spectrum, depending where the resources are. This is why you find the division of labor noted above. The largest single block of personnel is from HEW which has cooperated in our programs overseas for 20 years and has been a major supporter of these activities. A total of 446 people are employed by AID either directly or indirectly, through a participating agency service agreement. 265 are direct hire AID employees, 170 are HEW employees and 11 are provided from other U.S. Government agencies.

Senator HUGHES. How many of them are in foreign missions?

Dr. HOWARD. The actual number of these employees in foreign missions is 297, of which 185 are AID direct hire employees, 103 HEW past employees, and nine from other U.S. Government agencies.

Senator HUGHES. What can we do to help you, Dr. Howard?

Dr. HOWARD. Well, I believe that one of the most single important things is to provide continually the type of legislation which recognizes and permits a focus on health as a key factor in the improvement of the quality of life in developing countries.

In the last 20 years, the AID organization and its predecessors have shown the capability of making rational choices in the use of their budgets for health purposes when nonearmarked funds have been available. My feeling personally is that if you have a special earmarking which tends to produce an imbalance in health sector activity, then perhaps consideration should be given to providing parity or balance of program assistance in order to avoid misinterpretation of U.S. image or intentions overseas.

I am not appealing for earmarking of health funds, Mr. Chairman, but I am saying that if it is done in one area, as in population, then there is a social and political rationale for doing it in other health areas which are supportive of population so that the program becomes effective.

Other than this balance of operation, I believe that special resources and special legislation are always welcome and the Agency has gone on record by saying that it would certainly welcome any action of Congress which would provide greater endorsement or resources for the area of health in balance with the general programs of development.

Senator HUGHES. I am having a little trouble in hearing all this testimony this morning. If I understand you correctly, and if I read Dr. Ehrlich correctly earlier, you are telling me that it is impossible to set up anything separate in the field of international health. If I understand you correctly, you are maintaining that we should operate through the existing mechanisms such as AID, WHO, HEW. I understand you to say that Congress should appropriate increased funds to you and that you will use your judgment on what is best.

To say the least, that always troubles Congress. We always think we are wiser than you and vice versa. Frankly, I am a little confused and confounded by this testimony. I don't really want to accept the fact that you are doing all there is to be done and that we can't do more. Our witnesses yesterday stated that 90 percent of the peoples in the developing world have no access to any form of health care. The dedication of the people who have testified before this subcommittee is beyond question. You have the dedication. You have the background.

And yet I feel something is lacking. Can you diagnose my problem?

Dr. HOWARD. I would suspect that the problem may be only that the infrequent dialog on international health programs has not permitted adequate communications with Members of Congress. For example, I believe that the testimony you are hearing today and heard yesterday, you have really heard for the first time.

Senator HUGHES. Ninety percent of it I have heard the first time. A lot of it has been surprising for me. The sad part of it is I am here alone today, and had one man with me yesterday.

Dr. HOWARD. But, our experience, Mr. Chairman, was the same in the House last year. For them, too, much of the background was new. My feeling is that if there were a regular mechanism for communicating, or for discussing our health plans and programs with Members of Congress, since these plans exist in written form, and thereby draw the attention of legislators to international health problems, we would have better programs than if health issues and health problems are simply not brought to the attention of Congress at all, except as an incidental component within an overall general development program.

Senator HUGHES. What I found when I came here, Dr. Howard—and I think it would be of interest to all of you gentlemen here from the professions—is that this subcommittee has been in existence for a long time.

It had a chairman prior to my chairmanship. I have been chairman of it for 2 years, and this is the first hearing I have held. There was no record of a hearing having been held by this subcommittee since it was created.

I actually struggled for several months trying to find out what we should be doing with this subcommittee. This is not a moment of confession, but I think a revelation, of some of the problems that we face together in trying to meet our mutual obligations, plus our desires. I am sure our earnest commitment is to want to do what we can do. I have this commitment and I know you have it.

So what I am saying is that I need your help. I need your cooperation and your professional judgments. I want to do the best job I can as chairman of this subcommittee to bring to the attention of the overall committee and thereby the Senate of the United States. I feel this subject is critically important in world affairs today for many reasons.

I feel it is a subject in which I can take an increasing amount of interest. I want this committee to make a contribution to international understanding and world peace by the utilization of tools which are either available or can be made available in the support of funding and necessary professional expertise.

I am starting from nothing. I really don't know where I am going. I tell you that honestly. I am seeking and searching and trying. If I sound confused at the moment, or antagonized or surprised by what is happening, probably all of it is true.

I guess that is about all I have to say, except the fact that we want to do everything we can not only to support but to create, to be innovative. I am personally convinced as we have gone into this field that there is a whole new door not only of opportunity but necessity of action for congressional information and public information in the country on what we can and should be doing.

Dr. HOWARD. Mr. Chairman, I just want to indicate what a pleasure it is for us to respond to your interest. This is something that has been a tremendous morale booster for many of us who have long felt—and I know that Dr. Ehrlich, my colleague, feels the same—that there really is a tremendous need for an increase in health emphasis in our programs overseas, and certainly on our part, the part of the agency, we are fully prepared to cooperate with you in any way that we can.

Senator HUGHES. I have found that attitude in everyone who has been before the subcommittee these past 2 days. I have also generally found this to be true in our investigations which were conducted before these hearings. I guess I probably committed an unpardonable sin saying I don't know what we should have been doing or why. I felt this committee should be doing what it was set up to do, or it ought to be abandoned. Based on our investigations and these hearings, I now believe there is a great need for this committee. I want to do that job. We appreciate your willingness and your cooperation. Thank you for being so helpful. We will try to be helpful to you.

I want to say that I and this committee want to be helpful to you in the congressional programs that are developed. I can't guarantee anything. But I will guarantee that I will try. I do want to assure you of that.

Thank you for your testimony and patience and your presence over the last 2 days. I thank all the gentlemen.

At this point I order printed all statements of those who could not attend and other pertinent material submitted for the record.

(The material referred to follows:)

FOREWORD

This report provides information about the health, population, and nutrition activities that were undertaken by the Agency for International Development (A.I.D.) during the fiscal year 1971 (FY 1971), the amounts of money obligated or committed for them, and, to the extent possible, the progress made in achieving project goals during the reporting year.

The information contained in the report was obtained from a variety of sources. The A.I.D. Program Presentation to Congress for the proposed FY 1971 Program was the source from which statements of policy and program plans were obtained. The FY 1971 and FY 1972 regional volumes of the A.I.D. Program and Project Data Presentation to Congress were used to help identify the health, population, and nutrition projects. Information about project implementation was obtained from the FY 1972 volumes of the Presentation to Congress, end of tour reports of field staff, other reports of field staff and TDY consultants, reports prepared by the Technical Assistance Bureau of A.I.D., messages from USAID Missions and reports of A.I.D. Regional Bureaus, contractors and participating agencies. The Population Program Assistance Report, December 1971, was the source of information and data on population programs. Data on amounts of funds obligated in FY 1971 were obtained from the June 30, 1971 reports from the Office of the Controller on Technical Assistance Projects and Activities, Capital Assistance Projects (W-253), and Operations Report, June 30, 1971 (W-129), Office of Statistics and Reports.

The designated numbers of health, population, and nutrition projects in the A.I.D. program are the 500-590 series. If an active project was identified as one in this series, it is described in detail. This is done regardless of whether or not FY 1971 funds were committed. Generally, projects reported by A.I.D. in other than the 500-590 series are not included in the report although some nonhealth coded projects were health-related or had a health component and are identified in country summary statements.

Although the A.I.D. Food for Peace Program assists in combatting malnutrition, information about this activity is not included in the report. The program is funded primarily with local currencies and dollar costs to A.I.D. are not assigned to projects in the 500-590 series.

In all sections of the report, projects are identified as either health, population, or nutrition. In the country summaries, however, the generic term "health" is used for all three categories.

The report includes combined fiscal data on both dollar grants and loans. It does not include data on local currency obligations, nor does

it include a differentiation among various types of funds, such as Technical or Supporting Assistance. The data on funds includes total FY 1971 obligations of A.I.D. for country, regional, and nonregional projects in health, population, and nutrition, and for support of American Schools and Hospitals Abroad but does not include the administrative and program funds that were obligated for U.S.-based A.I.D. program support staff or for PHS technical consultation and support staff.

Information on the professional and administrative personnel engaged in the health, population, and nutrition activities of A.I.D. is limited to those who were on duty as of June 30, 1971. It includes the names, positions, and locations of A.I.D. direct hire employees and those provided by other government agencies under Participating Agency Service Agreements (PASAs) and under Technical Consultation and Support Agreements. Similar information about personnel provided under contract could not be obtained but the names of the contractors are given as part of the project report whenever available.

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Health, Population and Nutrition SummaryWorldwide
FY 1971Program Plans

As a result of Congressional action in 1969, the President was directed to undertake a reappraisal of all U.S. foreign assistance programs, economic and military. The interim recommendations contained in the President's Foreign Aid Message of May 1969 were also included in the A.I.D. FY 1970 Program Presentation to Congress. The major conclusions and recommendations as stated were that foreign assistance remains an essential function of U.S. foreign policy and must be continued; emphasis on private enterprise and individual initiative must play a greater role in development; greater use of technical assistance; increased sharing through multilateral assistance efforts; and highest priorities of U.S. assistance to continue to be on increasing food production and reducing soaring population growth rates. The FY 1971 Program Presentation to Congress reflected the fact that a major reappraisal of the foreign aid program was underway.

Organizational changes to reflect new priorities and new directions of the A.I.D. program were included in the proposed legislation for FY 1970. A new Overseas Private Investment Corporation was created to take over A.I.D.'s U.S. investment incentive programs in FY 1970. The FY 1971 Appropriation Request included funding for this agency. Further organizational changes were to be considered during the fiscal year.

Concentration of program activities continued in FY 1971 with 87% of country programs proposed for only 15 countries. Eight of these countries - Brazil, Chile, Colombia, India, Indonesia, Korea, Pakistan, and Turkey - were scheduled to receive 83% of the Development Loan Funds for FY 1971. Supporting Assistance was to be even more concentrated, with 98% of the country aid for Vietnam, Laos, and Thailand.

Of the total proposed program in FY 1971, one-quarter or over half a billion dollars was proposed for assistance to agriculture in the developing countries. First priority was to be given to assistance to population and family planning programs, along with aid to food production, as essential elements in economic and social development. Of the 44 countries scheduled to receive bilateral aid in FY 1971, it was stated that 25 had started official national family planning programs and 11 had initiated population activities or experimental programs.

FY 1971 plans included over \$70 million for health programs over the amounts provided for population and family planning. Health programs were to be concentrated in the interrelated areas of population and family planning, disease control and eradication, environmental health, nutrition, maternal and child health care, and research. Nutrition activities were to emphasize education coordination with family planning efforts. Distribution of high protein foods and continuation of research to improve the protein quality of grains was planned.

Program Implementation

The F.Y. 1971 appropriation administered by A.I.D. totaled \$1.722 billion. This was a slight decrease over FY 1970. Development and Alliance for Progress loans declined with fewer loans being made in Near East and South Asia, and Latin America regions. The loan amounts in East Asia and Africa increased slightly over FY 1970. Supporting Assistance rose, primarily due to increased commitments to Vietnam. Technical Assistance funding remained at about the same level, \$267 million, as for FY 1970.

In FY 1971, 80% of all A.I.D. assistance went to 10 countries and 89% of Supporting Assistance was concentrated in three nations. This follows program plans as stated in the Presentation to Congress. Total funds obligated in FY 1971 for A.I.D. program activities and the amount and percentage for health, population, and nutrition by region or other allocation are shown in Table 1, page

Support for population programs increased to \$95.7 million in FY 1971, a rise of 33% over \$74.6 million in FY 1970. Over \$42 million of the FY 1971 total population support was provided on a bilateral basis for programs in 31 countries. Other assistance was provided in the form of grants to private and international organizations or for regional projects or projects carried on in the United States.

Funding for health programs in FY 1971 decreased primarily as a result of fewer development loans for health projects. Thirty-seven percent of funds obligated for health programs was in Vietnam. Funds obligated for health projects by type of activity and region or other allocation, Worldwide, are found in Table 3 on page

Nutrition programs received \$1.826 million (1.2%) of the total \$152.838 million obligated for health, population, and nutrition in FY 1971. This was a reduction from \$2.115 million in FY 1970. See Table 2, page

The number of projects initiated in FY 1971 was 64 compared with 41 in FY 1970. Of the total 64 new projects, 49 were population, seven were health, and eight were nutrition. Worldwide, there were 273 active

health, population, and nutrition projects, a total increase of 40 over the prior year.

The distribution of projects initiated in FY 1971 and prior years was as follows:

<u>Allocation</u>	<u>Total</u>	<u>Number Initiated in FY 1971</u>	<u>Number Prior Years</u>
Total	273	64	209
Africa	37	13	24
East Asia	17	3	14
Latin America	58	3	55
Near East South Asia	24	3	21
Vietnam	12	1	11
Nonregional	125	41	84

The distribution of projects by activity, was as follows:

<u>Activity</u>	<u>Total</u>	<u>Number Initiated FY 1971</u>	<u>Number Prior Years</u>
Total	273	64	209
Health	86	7	79
Population	157	49	108
Nutrition	30	8	22

All projects initiated in FY 1971, and 140 of those initiated in prior years required an FY 1971 obligation of funds.

The distribution of projects by activity and allocation follows:

<u>Allocation</u>	<u>Total</u>	<u>Health</u>	<u>Population</u>	<u>Nutrition</u>
Total	273	86	157	30
Africa	37	11	24	2
East Asia	17	8	7	2
Latin America ;	58	27	31	-
Near East South Asia	24	9	14	1
Vietnam	12	11	1	-
Nonregional	125	20	80	25

In FY 1971, \$13.860 million obligated for health, population, and nutrition activities were loans. See Table 4, on page

The A.I.D. health staff, as of June 30, 1971, numbered 446. Of the total, 265 (59.4%) were A.I.D. direct-hire employees and 170 (38.1%) were provided by the P.H.S., and 11 (2.5%) by other agencies. Of all staff members on field assignments 23.0% were in Vietnam.

The percentage of the total obligated for health, population, and nutrition projects were as follows:

<u>Projects</u>	<u>Amount</u> (thousands of dollars)	<u>% of Total</u>
Total	\$57,349	
Health	2,699	4.7
Population	53,330	93.0
Nutrition	1,320	2.3

There were 125 active nonregional health, population, and nutrition projects in FY 1971. Forty-one were initiated during the fiscal year and 84 were a continuation of projects initiated in prior years. The distribution by activity was as follows:

<u>Projects</u>	<u>Total</u>	<u>Number Initiated</u> <u>FY 1971</u>	<u>Number Initiated</u> <u>Prior Years</u>
Total	125 2/	41	84
Health	20	3	17 1/
Population	80 2/	31	49 1/
Nutrition	25	7	18 2/

1/ Thirteen health projects, 14 nutrition projects, and 27 population projects initiated in prior years required a FY 1971 obligation of funds.

2/ Includes two activities not identified as projects: UN Fund Contribution and AID/W other.

The 125 projects were implemented in a variety of ways. Many were contracts or grants to U.S. institutions, U.S. and international organizations, and U.S. private industry. Others were implemented by A.I.D. or for A.I.D. through a PASA with another U.S. Government Agency. The mode of implementation was as follows:

<u>Method of Implementation</u>	<u>Total</u>	<u>Health</u>	<u>Population</u>	<u>Nutrition</u>
Total	125	20	80	25
Contracts and Grants	98	11	71*	16
PASAs				
PHS	10	8	2	-
Bureau of Census	5	-	5*	-
AID/W	11	1	3	7
Dept. of Agriculture	2	-	-	2

* One population project was implemented by both a contract and a PASA.

The distribution of staff by region, or other allocation and employer was as follows:

<u>Allocation</u>	<u>Total</u>	<u>AID</u>	<u>PHS</u>	<u>Other</u>
Total	446	265	170	11
Africa	76	15	59	2 1/2
East Asia	51	38	13	-
Latin America	32	14	18	-
Near East South Asia	35	23	6	6 1/2
Vietnam	103	95	7	1 1/2
Domestic Support Staff	149	80	67	2 1/2

1/ Department of Commerce/Census Bureau

2/ Department of Agriculture

Domestic support staff includes all health personnel assigned to duty in the U.S. including AID/W, and the technical consultation and support staff (TC&S) and PASA support staff of the Public Health Service and the other agencies identified. The distribution of A.I.D. health, population and nutrition personnel by disciplines, region or other allocation, and employer, as of June 30, 1971, is shown on the chart on the following page. Names, positions and locations of all A.I.D. direct hire and other staff are given in the section of the report which begins on page

A.I.D. Technical Service Contracts for Health, Population and Nutrition
as of June 30, 1971.

A.I.D. contracts are generally funded for more than a one-year period. The accompanying list of Technical Service Contracts in effect June 30, 1971 for Health, Population, and Nutrition activities represents contracts funded not only in FY 1971 but prior years as well. A.I.D. Report No. W-443, Contract Services Division, was the source of information for this listing.

Contractors are listed alphabetically by geographic division, beginning with nonregional activities which apply worldwide.

There are 178 contracts, not including separate Task Orders added to initial contracts. These contracts represent \$136,696,048 committed by A.I.D. for services, distributed as follows:

Health	:	\$26,031,017
Population:		100,818,357
Nutrition :		1,750,500

Table 1. Allocation of funds by region, by type of hospital, and by country, 1971

Allocation	Total	% for		% for		% for	
		Health	Health	Population	Population	Nutrition	Nutrition
				(thousands of dollars)			
Total	\$152,838	\$55,337	36.2	\$95,675	62.6	\$1,826	1.2
Africa	19,504	11,464	58.8	7,783	39.9	257	1.3
East Asia	18,128	5,446	30.0	12,682	70.0	-	-
Latin America	26,316	11,276	42.8	15,040	57.2	-	-
Near East South Asia	7,750	899	11.6	6,602	85.1	249	3.2
Vietnam	20,981	20,693	98.9	238	1.2	-	-
American schools & Hospitals abroad	2,860	2,860	100.0	-	-	-	-
Non-Regional	57,349	2,699	4.7	53,330	93.0	1,320	2.3

Table 2. Funds obligated for health programs in the region, or other allocations, by activity, 1960-1964.

Allocation	Total	Environ- mental Health	Health Manpower Development	Health Services Facilities	Malaria Eradication	Measles Smallpox	Other Disease Control
Total	\$55,337	\$9,946	\$3,111	\$28,218	\$11,126	\$1,982	\$954
Africa	11,464	3,300	33	1,199	4,950	1,982	-
East Asia	5,446	299	-	4,471	326	-	649
Latin America	11,276	5,156	-	2,887	3,233	-	-
Near East South Asia	899	-	-	541	358	-	-
Vietnam	20,693	1,365	3,006	16,129	193	-	-
American Schools & Hospitals Abroad	2,860	-	-	2,860	-	-	-
Non-Regionals	2,699	125	72	131	2,066	-	305

Table 4. Funds committed for project loans by service, and countries, worldwide, FY 1971.

Allocation	Total	No. of Loans	Environ- mental Health	Health		Malaria Eradication	Population
				Services	Facilities		
(thousands of dollars)							
Total	\$13,860	5	\$5,100	\$2,500	\$6,260	-	-
Ethiopia	4,900	1	-	-	4,900	-	-
Costa Rica	610	1	-	-	610	-	-
Ecuador	750	1	-	-	750	-	-
Guatemala	2,500	1	-	2,500	-	-	-
Panama	5,100	1	5,100	-	-	-	-

AFRICA REGIONProgram Plans

The proposed A.I.D. program for Africa in FY 1971, as indicated in the Presentation to Congress, reflected continuing emphasis on skilled manpower development, support of key capital projects which provide the foundation for modern agricultural and industrial production facilities, and extension and improvement of transportation and communication links to promote closer economic cooperation among African countries.

A.I.D. proposed the allocation of almost 30% of its FY 1971 development assistance in Africa to regional and multidonor activities. The total proposed program was to be divided about equal between Development Loans and Technical Assistance. About two-thirds of the bilateral assistance in FY 1971 was to be concentrated in the ten "development emphasis" countries: Congo (Kinshasa), Ethiopia, Ghana, Liberia, Morocco, Nigeria, Tunisia, and the three East African states of Kenya, Tanzania, and Uganda. The Special Self-Help fund was to be continued to provide U.S. encouragement and support to those 26 countries in which there is no bilateral A.I.D. program. This fund provides support for small, local self-help activities of a development nature undertaken primarily by the local population themselves. The amount for Self-Help activities for FY 1971 in Africa was to be included in the total funds allocated to Africa Regional projects.

Summary of Program Implementation

FY 1971 Foreign Aid funds amounting to \$176.142 million were obligated for A.I.D. activities in Africa. Of the total, \$19.504 million (11%) was obligated for health, population, and nutrition projects. See Table 5 on page

The FY 1971 obligations for health, population, and nutrition more than tripled FY 1970 obligations due to increased population activity and loans in the health field.

The amount of funds obligated for health, population, and nutrition projects, by country or other allocation and the percentages for each type of activity are shown on Table 6 on page

The distribution of active projects in FY 1971 was as follows:

<u>Projects</u>	<u>Total</u>	<u>Number Initiated FY 1971</u>	<u>Number Initiated Prior Years</u>
Total	37	13	24 ^{1/}
Health	11	2	9
Population	24	11	13
Nutrition	2	-	2

^{1/} Two nutrition, six health, and 12 population projects initiated in prior years required an obligation of FY 1971 funds.

There were 37 projects active in FY 1971 as compared with a total of 29 projects in FY 1970. The increase was in population projects, which increased by 12 in FY 1971.

The Smallpox Eradication-Measles Control project continued as a Central West Africa Regional funded project with 20 countries participating. These were: Cameroon, Central African Republic, Chad, Congo (Brazzaville), Gambia, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Ivory Coast, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo, and Upper Volta; and two regional organizations (OCCGE and OCEAC).

Table 7 on page shows the amounts of funds obligated for health projects by type of activity and country or other allocation. Of the total funds obligated for health projects, 43.7% was for malaria eradication with activity limited to one country, Ethiopia, including development loan funding. Funding for environmental activities included a water supply development loan in Nigeria for 28.8% of the total funds obligated. Only 17.3%, as compared with 62.8% in FY 1970, was for the regional smallpox eradication and measles control program indicating a phasing down of the program. Health Services and Facilities development was 10.5%, representing primarily assistance to the Liberian National Medical Center.

A.I.D. had 76 health staff members on field assignments in Africa as of June 30, 1971. Fourteen were A.I.D. direct hire employees. Fifty-nine were provided by the Public Health Service, and two by the Census Bureau through PASA's. The health disciplines and specialties were as follows:

<u>Discipline</u>	<u>Total</u>	<u>AID</u>	<u>PHS</u>	<u>Other</u>
Total	70	15	59	2
Physicians	13	4	9	-
Public Health Advisor (nonmedical)	4	2	2	-
Nurses	6	2	4	-
Sanitarians	2	-	2	-
Health Educators	2	-	2	-
Malaria Advisors (nonmedical)	2	-	2	-
Hospital Administration Advisor	1	-	1	-
Operations Officers	28	-	28	-
Supply Management Advisors	2	-	2	-
Population Advisors	5	5	-	-
Housekeeping Advisor	1	-	1	-
Dietitian	1	-	1	-
Microbiologist	1	-	1	-
Personnel Director	1	-	1	-
Engineer	1	-	1	-
Virologist	1	-	1	-
Computer Programmer	1	-	-	1 $\frac{1}{2}$
Demographer	1	-	-	1 $\frac{1}{2}$
Equipment Specialist	1	-	1	-
Audiovisual Specialist	1	1	-	-

1/ Bureau of Census.

In addition to the personnel on assignment in Africa, 19 U.S. based professional staff of the PHS provided program support services for two projects carried out under PASAs: The Liberia J. F. Kennedy Medical Center Project and the Regional Measles Control-Smallpox Eradication Project. The disciplines and specialties represented are included in the table analyzing U.S. Based Support Staff on page together with Project Support Staff, Bureau for Africa, AID/Washington.

The names, positions and location of A.I.D., P.H.S., and Census Bureau field, and U.S. based staff are listed in the section of this report beginning on page

Table 6. Funds obligated for health, population, and nutrition projects by country or other allocation and percentage for each type of activity, Africa Region, FY 1971.

A	Total	Health	% for Health	Population	% for Population	Nutrition	% for Nutrition
		(thousands of dollars)					
Total	\$19,504	\$11,464	58.8	\$7,763	59.9	\$ 257	1.3
Regional	5,607	--	--	5,602	99.2	5	.8
AFRICA	2,015	2,015	100.0	--	--	--	--
Country							
Botswana	4	--	--	4	100.0	--	--
Burundi	63	--	--	63	100.0	--	--
Dahomey	27	--	--	27	100.0	--	--
Ethiopic	5,100	5,070	99.4	30	.6	--	--
Ghana	643	--	--	643	100.0	--	--
Kenya	141	--	--	141	100.0	--	--
Liberia	1,301	1,079	82.9	222	17.1	--	--
Mali	2	--	--	2	100.0	--	--
Mauritius	2	--	--	2	100.0	--	--
Morocco	190	800	89.9	90	10.1	--	--
NIGERIA	2,500	2,500	100.0	--	--	--	--
Tunisia	1,110	--	--	858	77.3	252	22.7
Uganda	99	--	--	99	100.0	--	--

* Central and West Africa Office for Regional Activities.

Table 7. Funds obligated for health projects by type of activity and country or other allocation, Africa Region, FY 1971.

Allocation	Total	Environ- mental Health	Health Development (thousands of dollars)	Health Services & Facilities	Malaria Eradication	Malaria Eradication	Essies- Gralbook
Total	\$11,464	\$2,300	\$33	\$1,199	\$4,950	\$1,982	
OWACRA	2,015	--	33	--	--	1,982	
Country							
Ethiopia	5,070	--	--	120	4,950	--	--
Liberia	1,079	--	--	1,079	--	--	--
Morocco	800	800	--	--	--	--	--
Nigeria	2,500	2,500	--	--	--	--	--

EAST ASIA REGIONProgram Plans

The A.I.D. Program Presentation to Congress for FY 1971 included Development Loans, Technical Assistance and Supporting Assistance. The Development Loans were to be for Indonesia and Korea. The bulk of Supporting Assistance was to be for Cambodia, Laos, and Thailand, with the balance for grants for the Southeast Asia regional program. Technical Assistance grants were proposed for Indonesia, Korea, Philippines, and Regional Development projects. Family planning programs with A.I.D. assistance were to be increased from the previous year.

Summary of Program Implementation

FY 1971 Foreign Aid funds amounting to \$304.915 million were obligated for A.I.D. activities in the East Asia Region. Of this total, \$18.128 million (5.9%) was obligated for health, population, and nutrition projects. See Table 8 on page

The amount of funds obligated for health, population, and nutrition projects, by country or other allocation, and the percentage for each type of activity are shown in Table 9 on page

There were 17 active health, population, and nutrition projects in the East Asia Region in FY 1971. Three of these were regional projects; 14 were country projects. Each of the five A.I.D. assisted countries in the Region had one or more projects. There were three new projects initiated in the health, population or nutrition categories. The distribution by activity was as follows:

<u>Project</u>	<u>Total</u>	<u>Number Initiated FY 1971</u>	<u>Number Initiated Prior Years</u>
Total	17	3	14 1/
Health	8	1	7
Population	7	1	6
Nutrition	2	1	1

1/ Four health and six population projects initiated in prior years required an obligation of FY 1971 funds.

The four health projects for which FY 1971 funds were obligated are shown by type of activity and country or other allocation in Table 10 on page . Health Services and Facilities projects were 82% of the total health activity; Other Disease Control, 11.9%; and Malaria, 6%.

As of June 30, 1971, A.I.D. had 51 health staff members on field assignment in East Asia. Thirty-eight were A.I.D. direct hire employees and 13 were provided by the Public Health Service through PASAs. The health disciplines and specialties were as follows:

<u>Discipline</u>	<u>Total</u>	<u>AID</u>	<u>PHS</u>
Total	51	38	13
Physicians	7	7	-
Public Health Advisors (nonmedical)	5	5	-
Population Officers (nonmedical)	5	5	-
Malaria Advisors (medical)	2	-	2
Malaria Advisors (nonmedical)	9	-	9
Malaria Training Advisor	1	-	1
Nurses	4	4	-
Sanitary Engineer	1	1	-
Sanitarian	1	1	-
Dentist	1	1	-
Health Educators	2	1	1
Medical Technicians	5	5	-
Medical Supply Advisors	3	3	-
Communications Media Advisors	2	2	-
Administrative Assistant	1	1	-
Statistical & Demographic Advisor	1	1	-
Social Science Research Advisor	1	1	-

The names, positions, and location of the A.I.D. and P.H.S. staff are given beginning on page

Table 9. Funds obligated for health and population projects by country or other allocation and percentage for each type of activity, East Asia Region, FY 1971*

Area	Total	% for		% for
		Health (thousands of dollars)	Health Population	
Total	\$18,128	\$5,446	\$12,682	70.0
Regional	2,592	649	1,943	75.0
Country Total	15,536	4,797	10,739	
Indonesia	1,759	--	1,759	100.0
Korea	1,660	--	1,660	100.0
Laos	4,668	3,743	925	19.8
Philippines	5,326	326	5,000	93.9
Thailand	2,123	728	1,395	65.7

Table 10. Funds obligated for health projects by type of activity and country or other allocation, East Asia Region, FY 1971.

Allocation	Total	Environ- mental Health	Health Manpower Development	Health Services & Facilities	Malaria Eradication	Other Disease Control
Total	\$5,446	--	--	\$4,471	\$326	\$649
Regional	649	--	--	--	--	649
Country						
Laos	3,743	--	--	3,743	--	--
Philippines	326	--	--	--	326	--
Thailand	728	--	--	728	--	--

(thousands of dollars)

Table 12. Funds obligated for health and population projects by country or other allocation and percentage for each type of activity, Latin America Region, FY 1971 ^{1/}

Area	Total	Health	% for		Population	% for
			Health	Population		
			(thousands of dollars)			
Total	\$26,316	\$11,276	42.8	\$15,040	57.2	
Regional	7,951	--	--	7,951	100.0	
ROCAP	209	209	100.0	--	--	
Country:						
Bolivia	335	--	--	335	100.0	
Brazil	163	163	100.0	--	--	
Chile	30	--	--	30	100.0	
Colombia	417	--	--	417	100.0	
Costa Rica	1,013	610	60.2	403	39.8	
Dominican Republic	107	107	100.0	--	--	
Ecuador	2,031	750	36.9	1,281	63.1	
El Salvador	439	--	--	439	100.0	
Guatemala	3,477	2,500	71.9	977	28.1	
Haiti	1,837	1,837	100.0	--	--	
Honduras	520	--	--	520	100.0	
Jamaica	580	--	--	580	100.0	
Nicaragua	397	--	--	397	100.0	
Panama	5,774	5,100	88.3	674	11.7	
Paraguay	471	--	--	471	100.0	
Peru	350	--	--	350	100.0	
Uruguay	190	--	--	190	100.0	
Venezuela	25	--	--	25	100.0	

^{1/} There were no active A. I. D. assisted nutrition projects in Latin America Region in FY 1971.

LATIN AMERICA REGIONProgram Plans

In the A.I.D. Presentation to The Congress for 1971, the President's statement was quoted that "The principal future pattern of assistance must be U.S. support for Latin American initiatives...." Latin American leaders have repeatedly reaffirmed the priority of developing agriculture and rural areas of their countries as well as expanding and modernizing the educational system. The FY 1971 A.I.D. program was to be concentrated in those areas.

Summary of Program Implementation

FY 1971 Foreign Aid funds totaling \$331.150 million were obligated for A.I.D. activities in the Latin America Region. Of this total, \$26.316 million (7.9%) was obligated for health and population projects. There were no nutrition projects. See Table 11 on page

The amount of funds obligated for health and population projects, by country or other allocation, and the percentage for both types of projects are shown in Table 12, page

There were 58 active health and population projects in Latin America in FY 1971. Ten of these were regional and 48 were in 20 of the 21 Latin American countries in which A.I.D. had programs.

The distribution by activity was as follows:

<u>Projects</u>	<u>Total</u>	<u>Number Initiated</u> <u>FY 1971</u>	<u>Number Initiated</u> <u>Prior Years</u>
Total	58	3	55 ^{1/}
Health	27	1	26
Population	31	2	29

^{1/} Nine health and 22 population projects initiated in prior years received FY 1971 funds.

The health projects for which FY 1971 funds were obligated are shown by type of activity and country or other allocation in Table 13 on page Of the total obligated for health projects, \$11.276 million, 45.7% was for environmental health, mainly one loan project in Panama amounting to \$5.100 million; 28.7% for malaria; and 25.6% for development of health services and facilities.

The A.I.D. health staff on field assignment in Latin America, as of June 30, 1971, totaled 32. Fourteen were AID direct hire and 18 were provided by the Public Health Service under PASA's. The disciplines and specialties represented were as follows:

<u>Discipline</u>	<u>Total</u>	<u>AID</u>	<u>PHS</u>
Total	32	14	18
Physician	1	1	-
Public Health Advisors (nonmedical)	4	4	-
Sanitary Engineer	1	-	1
Health Educators	3	2	1
Malaria Advisors (nonmedical)	8	-	8
Entomologist	2	-	2
Epidemiologist	1	-	1
Medical Technician	1	-	1
Chemist	1	-	1
Research Biologist	1	-	1
Administrative Officer	1	-	1
Parasitologist	1	-	1
Population Advisors (nonmedical)	7	7	-

The names, position and location of A.I.D. and P.H.S. staff are listed beginning on page

Table 13. Funds obligated for health projects by type of activity and country or other allocation, Latin America Region, FY 1971

Allocation	Total	Environ- mental Health	Health Manpower Development	Health Services & Facilities	Malaria Eradication
Total	\$11,276	\$5,156	--	\$2,887	\$3,233
ROCAP	209	--	--	209	--
Brazil	163	56	--	71	36
Costa Rica	610	--	--	--	610
Dominican Republic	107	--	--	107	--
Ecuador	750	--	--	--	750
Guatemala	2,500	--	--	2,500	--
Haiti	1,837	--	--	--	1,837
Panama	5,100	5,100	--	--	--

(thousands of dollars)

Table 15. Funds obligated for health, nutrition and population projects by country or other allocation and percentage for each type of activity, Near East and South Asia, FY 1971.

A	B	C	D	E	F	G	H	I	J
	Total	Health	Nutrition	Population	Fund Allocation	% For	Population	% For	Population
		(thousands of dollars)	(thousands of dollars)	(thousands of dollars)	(thousands of dollars)	Health	(thousands of dollars)	Population	Population
Total	\$7,750	\$899	11.6	\$6,602	85.1		\$249	3.2	
Regional	1,409	--	--	1,409	100.0		--	--	
Country									
Afghanistan	2,022	282	13.9	1,750	86.0		--	--	
India	1,001	212	21.1	540	53.0		249	24.9	
Nepal	830	114	13.9	703	86.0		--	--	
Pakistan	2,381	291	12.2	2,090	88.0		--	--	
Turkey	77	--	--	77	100.0		--	--	
CENTO	40	--	--	40	100.0		--	--	

Table 16. Funds obligated for health projects by type of activity and country or other allocation, Near East and South Asia Region, FY 1971.

Allocation	Total	Environ- mental Health	Health Manpower Development	Health Services & Facilities	Malaria Prevention	Other Disease Control
Total	\$899	--	--	\$541	\$358	--
Regional	--	--	--	--	--	--
Country						
Afghanistan	282	--	--	282	--	--
India	212	--	--	212	117	--
Nepal	114	--	--	--	114	--
Pakistan	291	--	--	47	244	--

(Thousands of dollars)

NEAR EAST AND SOUTH ASIA REGIONProgram Plans

In FY 1971, A.I.D. technical assistance in the Near East and South Asia Region (NEASA) was to be concentrated primarily in Afghanistan, India, and Pakistan. The remaining technical assistance was to be programmed for Turkey, Nepal, Jordan, and regional programs. Agriculture, education, and population problems were to receive major support through A.I.D. funding. Development loan funds were planned for capital projects and program loans were to be emphasized.

Summary of Program Implementation

Fiscal Year 1971 Foreign Aid funds amounting to \$288,287 million were obligated for A.I.D. activities in the Near East and South Asia Region. Of this total, \$7.750 million (2.7%) was obligated for health and population projects in five countries. There was one nutrition project. See Table 14 on page

The amount of funds obligated for health, population, and nutrition projects, by country or other allocation, and the percentage for each category are shown in Table 15, on page

There were 24 active health, population, and nutrition projects in the Near East and South Asia Region in FY 1971. Sixteen were country projects and eight were regional. Three of the 24 projects were initiated in FY 1971. The distribution by activity was as follows:

<u>Project</u>	<u>Total</u>	<u>Number Initiated</u>	
		<u>FY 1971</u>	<u>Prior Years</u>
Total	24	3	21 ^{1/}
Health	9	0	9
Population	14	3	11
Nutrition	1	0	1

^{1/} One nutrition, five health, and nine population projects initiated in prior years required FY 1971 funds.

The amount of FY 1971 funds obligated for health projects by type of activity and country or other allocation is shown in Table 16 on page Funding for health activities in FY 1971 was limited to two categories, health services and facilities, and malaria eradication.

As of June 30, 1971, A.I.D. had 35 health and population staff members on field assignments in the Near East and South Asia countries. Twenty-three were A.I.D. direct hire employees, six were PHS PASA personnel, four were provided on a Census Bureau PASA, one was provided on a Department of Agriculture PASA, and one was A.I.D. contract hire. The health disciplines and specialties were as follows:

<u>Discipline</u>	<u>Total</u>	<u>AID</u>	<u>PHS</u>	<u>Other</u>
Total	35	23	6	6
Physicians	2	2	-	-
Nurses	2	2	-	-
Malaria Advisors (nonmedical)	6	-	6	-
Population Advisors (nonmedical)	9	8	-	1 <u>3/</u>
Demographers	5	1	-	4 <u>1/</u>
Social Science Advisor	4	4	-	-
Soc. Development Information Advisors	2	2	-	-
Nutrition Advisor	1	-	-	1 <u>2/</u>
Program Analysts (Pop.)	1	1	-m	-
Auto Equipment Advisor	1	1	-	-
Supply Management Advisor	1	1	-	-
Communications Media Advisor	1	1	-	-

1/ Department of Commerce/Census Bureau

2/ Department of Agriculture

3/ A.I.D. contract

The names, positions, and location of A.I.D. field staff are included in the section of the report which begins on page

VIETNAMProgram Plans

In FY 1971, A.I.D.'s goals, within the context of overall U.S. objectives in Vietnam, were stated in the FY 1972 Congressional Presentation to be: "To facilitate Vietnamization by helping the Government of Vietnam bear the increased cost of the war; To prevent inflation and severe economic dislocations; To assist the Government in caring for refugees, civilian casualties and other war victims; and To help economic, social and political conditions in both rural and urban areas....."

Summary of Program Implementation

In FY 1971, Foreign Aid funds totaling \$387,722,000 were obligated for A.I.D. activities in Vietnam. Of this amount, \$20,931,000 (5.4%) was obligated for ten health projects. Two health projects: Municipal Utilities Loan Fund, 730-12-521-398; and National Rehabilitation Institute, 730-12-530-351, did not require FY 1971 funding. All but one of the 12 health projects were initiated in earlier years. The exception was Population, 730-11-580-405.

In addition to the 12 A.I.D. supported health projects there were six nonhealth projects that contained health or health related components. Information concerning these projects is given on pages

As of June 30, 1971, there were 103 A.I.D. health workers on assignment in Vietnam. This does not include A.I.D. contract personnel or third country nationals employed by A.I.D., but does include the seven health professionals provided by PHS under PASAs, and one Bureau of Census PASA employee.

The health disciplines and specialties represented on the U.S. staff in Vietnam were as follows:

<u>Discipline</u>	<u>Total</u>	<u>AID</u>	<u>PHS</u>	<u>Other</u>
Total	103	95	7	1
Physicians	11	11	-	-
Nurses	31	30	1	-
Public Health Advisors (nonmedical)	12	12	-	-
Health Administration Assistants	4	4	-	-
Malaria Advisors	6	-	6	-
Medical Education Advisor	1	1	-	-
Epidemiologist	1	1	-	-
Veterinarians	2	2	-	-
Sanitary Engineers	3	3	-	-
Population Advisors	1	1	-	-
Demographer	1	-	-	1 <u>1/</u>
Medical Technicians	4	4	-	-
Health Education Advisors	1	1	-	-
Communication Resources Advisor	1	1	-	-
Hospital Administration Advisors	2	2	-	-
Hospital Construction Advisor	1	1	-	-
Sanitariums	8	8	-	-
Medical Supply Advisors	3	3	-	-
Medical Equipment Advisors	6	6	-	-

1/ PASA with Bureau of Census

TESTIMONY SUBMITTED FOR THE SENATE INTERNATIONAL HEALTH, EDUCATION AND LABORSUBCOMMITTEE HEARINGS REGARDINGDEVELOPING NATIONS HEALTH NEEDS

Kevin M. Cahill, M. D., Director, The Tropical Disease Center
New York, and Professor and Chairman, Department of
Tropical Medicine, The Royal College of Surgeons in Ireland

I am grateful to the Committee, and to its Chairman, Senator Hughes, for once again drawing the attention of Congress and the American people to the health needs of the developing nations.

In this jet age, the health problems of any nation may profoundly affect our own national well-being. This contention is not derived merely from disease ~~of~~ experience of Americans overseas - be they military, tourists, or business men; Nor do I speak only of the potential transmission of infectious diseases from continent to continent, as evidenced in the current cholera pandemic that for the first time in many decades has swept from it's Asian home to strike terror across Africa, and through Russia and Israel and into Europe. Rather, I would like to call the attention of this Committee to the benefits that could emerge from a greater involvement by this great nation in the health needs of the developing world.

I believe that these benefits would accrue to the poor and suffering peoples of the Third World, and to the American People. Despite the temptations of neo-isolationism, the justifiable concern for domestic problems, the importunate needs of our inner cities and

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the financial pinch from inflation, I am convinced that this nation does not doubt whether we should be abroad, but asks how. Medicine is indeed an untapped resource that would permit the United States to demonstrate its capacity to adapt its thinking, goals and dreams to new problems and realities. As in the past we need to accept - and relish - this potent side of our character.

I approach the problem of the health needs of developing nations by first citing how intertwined those needs are with our own, since I am convinced that this is the only way serious Congressional attention can be focused upon the field of international health. If you gentlemen appreciate the potential good for America and the appeal that programs of excellence in international health can have, not only for those in developing worlds, but for your own constituencies,^{EN} ~~that~~ I am certain we as a nation could move further along a path that would eventually bring greater international understanding and peace, as well as health. In the magazine America (March 4, 1972) in an article titled " Medical Diplomacy" I wrote:

" Indeed at no time in America's history has the United States been in more need of a program for fusing its vast material resources with its enormous energies, for the good of the world at large. Moreover, if I read the nation right, Americans do not really question whether we should be involved abroad but only how we are to do it. We actively want an international involvement that reflects the nation's humanity, strength - the dignity and beauty - that we know are alive in our country. But we need to realize that this self vision by Americans is not the view of our country that is seen in Africa, in the jungles of Southeast Asia or - apart from American missionaries - in

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the Phillipines or Nigeria.

What would make a difference would be a clearcut unequivocal identification of ourselves as individuals, and America as a nation, with the priority needs of other peoples as they see these needs. We have medical and missionary and Peace Corps personnel working overseas in the field. As a nation, however, Americans have failed to identify with their own representatives abroad, so they work in isolation - a fact that those they are helping readily appreciate. Likewise, we have multiple federal departments involved in assisting the developing countries, but their work, at least in medicine, is often poorly coordinated.

To emphasize what is decent and human in American's heritage, and to speak of the brotherhood of man may seem simplistic and idealistic to some, but such emphasis may be what this country really needs today; emphasis, namely, on a return to basic values, with stress on planning in a generous spirit and for long term goals, rather than for expedient gains of the moment.

.....I say that, I trust, as a realist. Indeed the medical personnel who have worked in the tropics can not afford to live in an unreal world. The problems of life and death there are immediate and practical, and make realists of the first order. But realists of all can be the discovery in oneself of a transparent brother-to-brother feeling, out of sharing the raw hopes and woes that surface so abundantly in the new nations. I commend that discovery to Americans, first as a kind of measure of personal liberation. Secondly, I commend it as a basic reading of the American spirit, battered perhaps by present events but ready to stir again for a truly believable cause."

I offer the above comments to this Committee because I think they are relevant and significant ones in defining our interests in the health needs of the developing nations. How we can best accomplish this " unequivocal identification of America " with the needs of people as they see them - and health needs are, without question, the priority need as

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seen by the developing nations - was reviewed by a number of leading authorities in The Untapped Resource, translated into a specific Bill (HR 10042) and (S3023) under the leadership of Congressmen Carey and Fraser and many of their co-sponsors, and by Senator Jacob K. Javits. My testimony on behalf of that Bill explains clearly why I believe that particular approach is better than any alternative, and why I believe the formal identification of international health by Congress as a priority activity of the American people overseas is essential. I would ask the unanimous consent of the Committee to insert my remarks at this point:

During the six days of hearings in the House of Representatives leaders in the world of diplomacy (Mr. Harlan Cleveland, Ambassador John Badeau), international health (Dr. Edward O' Rourke, Dean of the School of Public Health in Hawaii; Dr. William Walsh of Project Hope; Dr. John Bryant; Dr. George Lythcott, Associate Dean of Columbia Medical School, and others), economics (Professor Mark Perlman), the voluntary agencies (Mr. Cregger of CARE, Bishop Swanstrom of Catholic Relief Services), and others testified on behalf of the Bill.

The health needs of the developing world are enormous, and have been enumerated and recited by many experts. But whether that recitation will move into action depends on you. At the conclusion of the hearings on HR 10042, Congressman Fraser kindly invited me to summarize.

I noted that: " It becomes increasingly obvious, more obvious to me now than it was when these hearings began, how appalling has been our gradual retreat from the opportunities as well as the responsibilities of international health. You have heard over the six days of hearings not only of the hungry and diseased people in the developing world crying out for help, but we have heard from America seeking to find a better way to present the decency and humaneness for which this country so desperately wants to be known for overseas.

..... It becomes almost apparent that the undergirding of the present system in health just is not going to work overseas. I have been impressed by the willingness of the voluntary agencies, so intent on their own autonomy, to come forth in support of this Bill. I think it is obvious that their altruistic motives in serving the recipient has motivated their willingness and their concern to be involved.

The decision obviously is yours, I am convinced that this opportunity to clearly and unequivocally identify America's commitment to

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a humane endeavor really transcends the issue of health, though that alone, God knows, is a sine qua non for any development. I think the Bill addresses itself to the very quality of life that we as a people here and around the world want.

I earnestly entreat the Members of the Committee and yourself to carefully consider this because I feel that if we do not take this opportunity we really are going to be less of a nation."

Senator Hughes, Members of this Committee, I thank you for devoting your energy and attention to this matter, and I submit that the health needs of developing nations are not an academic or esoteric topic. For the many reasons cited above, the attempt to resolve ^{these} ~~the~~ needs represents the most crucial - and noble - potential for our country and the world.

STATEMENT OF KEVIN M. CAHILL, M.D., DIR., TROPICAL DISEASE CENTER, ST. CLARE'S HOSPITAL, NYC; PROFESSOR AND CHAIRMAN, DEPT. OF TROPICAL MEDICINE, THE ROYAL COLLEGE OF SURGEONS IN IRELAND

These hearings are vital not merely to the health of people around the world, but to the very quality of life in America. They address themselves not only to specific disease problems, but to where we are going as a nation and how we will present ourselves in the years and generations to come in the newly independent nations of the developing world where the bulk of this planet's population does and will exist. I am, therefore, extremely grateful that in Sub-Committee on International Organizations & Movements of the Foreign Affairs Committee will consider this topic and this bill for it transcends the limited scope and goals of medicine—within which I proudly work—and encompasses the breadth of interests and opportunities and responsibilities that are properly the concern of all of us as American citizens today.

In *The Untapped Resource: Medicine and diplomacy* (copies of which were sent to each of you), the philosophical basis for combining these disciplines was considered in some detail by a group of unusually qualified experts. Angie Brooks, then President of the United Nations General Assembly, speaks of the "millions of people in our world whose very existence is no more than a daily battle to keep alive" and concludes that medicine and "the physician, with his capacity to relieve suffering and to answer an immediately felt need, has a greater possibility of being accepted by a community. He is then able to set up the bridgehead from which the multi-pronged development battle can effectively be launched. Health effort in such a community must be appreciated also in terms of conserving and building up the major, sometimes the only, resource—the human resource. Development efforts can hardly take root in a disease-ridden community, where the only source of energy is muscle power.

Is such a program in international health diplomatically feasible? When inviting participants to contribute to the book, I turned to John Badeau who was our Ambassador in Cairo during the years I served in Egypt, and this most thoughtful man who will be testifying before the Committee later, wrote that "unless a diplomatic problem affects its most vital national interests, a great power must depend on its ability to persuade another power to accept a mutually satisfactory course of action. This means that *common interests* and *shared objectives* become central to diplomatic practice. In fact, he states, "in the last analysis, the success of the affluent western world in dealing with the emerging areas will not be determined by military might or diplomatic pressure. It will come from the success of the developed countries in identifying themselves with the urgent problems of new nations by contribution to their solutions." Without doubt, the *major priority to the individual citizen in every developing area*, according to a recent UNICEF study, *is health*.

Representing one of the poorest countries in Africa, Ambassador Farrah of Somalia, emphasized this point in another contribution to the book. If aid is to be effective it cannot be merely a transfer of our priorities and technological prowess, but an effort to assist the developing countries attain a standard of living and health that will permit them to develop in their way. The day is gone when we can or should even attempt to, define other nations' priorities and goals how much better, and more likely to succeed would be the application of our vast resources to the solution of their priorities and problems especially when there would appear to be absolutely no conflict between those in health in our own international aims.

The question of the political feasibility was considered in *The Untapped Resource* by Congressman Carey and it would be bringing coals to Newcastle for me to enlarge upon that theme in this audience. However, I too am an American citizen and proud to be so, and do not shy away from the obligation to foster my nation's interests while pursuing my own specific professional goals. In my first article on Medicine and Diplomacy seven years ago I wrote that "anyone working or even visiting in a foreign country becomes involved—willingly or unwillingly, wittingly or unwittingly—in the political exchange of his native and host nations." I have, quite obviously, thought long and hard about the political desirability of combining medicine and diplomacy and I, with all the humility of the Irish, would like to join Congressman Carey in his comments on this matter.

In fact, I believe that the American people, despite the normal human desires to retrench and devote the majority of our resources to the major problems that face America within its own shores, recognize that in 1971 there can be no retreat from our position as the prime international country in the western

world. I do not think, from my own contacts with other citizens, that anyone seriously denies that role, but the question is *how* we are to fulfill it. It seems to me that the American people have been fragmented and disillusioned by, and are discontented with, our foreign image and activities, and that it will take a decent foreign involvement to rejuvenate the spirit of this nation and to rekindle the confidence that we all had in our national destiny less than a generation ago.

This is why I stated at the beginning of this statement that I feel strongly that a program in international health, such as is called for here today, is as important to the American people as it is to the world. I believe that there must be a *clear identification of our national commitment* to the concept that we, as a people, are interested in and willing to concern ourselves with a humane endeavor overseas. I think it is not only the poor and the hungry and ill peoples of Africa and Asia and Latin America whom we will fail to reach by further military and commercial ventures, but it is the American people. I think we all, as American citizens, are seeking from our country's leadership a positive program to serve, at the very least as a balance to our present image around the world.

I do not address myself here to the question of whether or not our international military and commercial efforts were or are justifiable since that is not only beyond the scope of these hearings but of my competency. I am convinced, however, that regardless of the necessity of some or all of these activities there is a desperate need for a balance, and it seems to me that no endeavor of mankind is as easily understood by all sides as a medical one.

I have witnessed, and written about, the sensitivities and possible misinterpretations of recipient nations with other forms of aid. I have personally seen examples where our contribution to the construction of airports was interpreted as backing solely the present regime in a country, and when the next coup came as it does with almost mathematical inevitability in some African areas, we were held accountable for the bombs and the air attacks. I have seen the agricultural attaché blamed for destroying traditional farmlands, the dam builder for flooding the lands and the teacher for indoctrinating or deluding the young.

Few areas of overseas aid are immune to these possible misinterpretations. Few forms of aid—if well planned—can be offered with the assurance that both donor and recipient countries would experience the dramatic impact of immediate benefit, as well as the long term effect of hard-won mutual respect. Few projects can be completed with the assurance that later political changes will not confuse or diminish the good that was done. Medicine is a unique exception, especially in a developing world where infectious diseases and epidemics, remain the great scourge.

During the past decade I have had the privilege of intimate contact with numerous diplomatic efforts while being associated with and later directing American research teams working in tropical areas. From these experiences I became convinced that combining medicine and diplomacy represents a most natural vehicle for modern international communication. In Africa, for example, where the stability of government is a yet rare phenomenon, my own medical work served to form a bond between several successive administrations. In one country I had the pleasure of working under three different governments, and caring for the Prime Ministers and leaders in all three. There have been times when these men have sought my advice and assistance, not only as a medical practitioner. I think this personal experience could be enlarged upon and that view was the early basis of my endeavors to involve the nation as a nation in this movement.

It seems to me that combining medicine and diplomacy is in the finest heritage of the United States. It is hoped that we have the maturity, the wisdom, and, if necessary, the courage to jettison the standard, rigidly pursued, and often unsuccessful practices of past foreign policies, in order to seek new methods of presenting what is fine and decent in this land of ours to the developing world. If life is a series of alternatives, then this is a good one indeed.

For generations Americans have worked in the medical field overseas, often in the most remote parts of the world, but they worked as Catholics or Lutherans or Baptists, or non-religious volunteers, and yet our country failed to identify itself with their efforts. Many times I have had the experience—as have others who have worked abroad in medicine—of being told that you are “dedicated” (and that word is vague enough that even I can accept it) but then to hear a tirade about America, its bombs and its colonialism and its might. When I would point out that I was American and proud of it, I would be justifiably asked was America supporting my efforts, or identifying themselves in any way with my work, the

answer, regrettably, was usually "no." I talk here in terms of a moral and philosophic identification and not necessarily a financial one.

We have paid lip service to the health needs of the vast population in the developing world. Unfortunately, even that lip service has not always been accurate. Two major reports have recently been issued that, unless corrected, may well serve as a false basis for foreign assistance programs in the 1970's.

The Pearson Report studied many ramifications of foreign aid and many of its carefully researched studies and conclusions were undoubtedly correct and desirable. Its view on health, however, was summarized recently by a group of European medical deans as "almost totally lacking in appreciation of the economic and social significance of public health in global medicine." The report, for example, at one point states that "malaria has been virtually eliminated by a worldwide campaign"—a total inaccuracy about a disease that remains a major medical threat to more than 100 million persons in malarious areas around the world.

The Pearson Report also states that the percentage of doctors per population has improved greatly and notes that in Africa in 1966 the range was 1 to 9,200. As Professor Maegraith of Liverpool responded, "I can only say that in 1969 in one of the better served areas in Nigeria (one of the best in Africa) the ratio was nearer to 1 to 40,000." My own experience in even more destitute areas of Africa and Asia would corroborate that or even a higher ratio.

In this country, the Peterson Report was commissioned by President Nixon in order to determine the future of American foreign assistance in the 1970's. Once again, the report paid lip service to health and the eradication of poverty and disease, but no specific health programs were proposed apart from a continuation of the contributions of surplus foods and the humanitarian assistance provided during disasters. New organizations and institutes and councils were suggested, but health was not mentioned as a proposed activity in a single one of them.

In the *Untapped Resource*, Bishop Swanstrom, Director of the Catholic Relief Service, the largest voluntary agency working overseas, and past Chairman of the American Council of Voluntary Agencies for Foreign Service, spoke, as he said, for "the dark underside of life—the isolated rural areas, the urban centers newly swollen with rural migrants, the refugee communities." So many of the voluntary agencies, with their intimate knowledge of the needy around the world, have developed from merely distribution centers for surplus food to programs where nutrition and maternal and child welfare is the basis of self-help projects. Bishop Swanstrom points out the need for unifying the individual efforts of this vast army of missionary personnel around the world and will be presenting a statement at these hearings on the desirability and necessity of coordinating through an International Health Agency in this country. In his concluding remarks in the book, he quoted a Russian philosopher that "the question of healing our neighbor in this global village is a spiritual matter. The spiritual eye must see the whole human family as eventually one, it must pierce us with pain at another's suffering."

How do we go then from these general philosophic thoughts to a specific program? Having written and thought about the broad issue for years, I felt that the first step was to bring together outstanding individuals from different disciplines to speak on the topic. This has been accomplished and presented in the book. But if, as Congressman Carey phrases, we are to be the "corpsman of mankind and not the policeman," and, if this is truly a "war we can win" in his words, or in those of Angie Brooks "the only war worth fighting" then how can we develop the organizational arrangement to begin not only a logical fight on disease but a clear and *unequivocal identification* of our own national commitment to this humane endeavor? I believe that it can be best done through the Carey-Fraser Bill that has been submitted by Congressman Carey and is before you today.

Enacting this proposal would clearly indicate our interest in international health, would permit our nation to serve the Americans working overseas under all auspices to improve the quality, and in many instances, the quantity of medical care delivered, would coordinate the extensive, federally funded medical programs now working in isolation—and often in ignorance—of one another overseas. It would evidence our national concern in international health activities and thereby improve our contribution to, and position in, agencies such as the World Health Organization (WHO), UNICEF, PAHO, and FAO.

I think that the need for a separate agency is partially answered by the alternatives. Could a program be developed within the Department of Health, Education and Welfare (HEW) that would accomplish what is possible in international

health, drawing upon all the voluntary agencies working overseas, the various federal departments active in the field. I think not. Although the Office of International Health in HEW has been a very effective unit it is, of necessity, a minuscule component of a domestic health agency. It cannot have the flexibility required for developing delivery systems for medical care in a hundred-odd countries. Many of the voluntary agencies would be justifiably hesitant in seeking coordination and direction from the small component of the behemoth that is HEW. The international health group in such a Department would be inevitably competing with the overwhelming—and politically more pressing—problems of ghetto medicine, and health insurance, et al in this country. Dr. S. Paul Ehrlich, Director of the Office of International Health in HEW, will be speaking before this Committee.

Is the Agency for International Development (AID) an existing activity where further Congressional interest in international health should be solely directed? History—particularly that of recent years—would indicate “no.” As remarkable as the achievements of AID in medicine have been, they have been greeted with an annual *reduction* in the health budget, and the majority of this expended in a limited number of countries, with population control now absorbing well over half the total sum. Part of the reason for this annual reduction may be the inability of the medical program of AID to be considered by Congress on their own merits, and not as is the case, as a relatively small component of a vast program where political, military, and economic factors are the determining points.

How can international health receive an adequate hearing, and how can one expect non-governmental organizations and individuals working around the world in medicine to willingly become part of an agency and entrust to them direction of future activities when such a very large percentage of all their personnel and funds serve only Vietnam? In fact 52% of all U.S. foreign assistance goes for security purposes and there is a great danger in combining international health activities with such a program, for health aid may then be employed—or at the very best misinterpreted—as but another component of a politically-motivated foreign assistance program. Ambassador Badeau, a man with great experience in diplomacy, addresses himself to that potential danger in *THE UNTAPPED RESOURCE*.

Are research organizations, such as the National Institutes of Health, or the newly-created Fogarty Center for International Health, an appropriate home for all the myriad of medical activities of America abroad? I think not. The research orientation does not adapt itself readily to the practical problems of the delivery of health care in rural areas or the medical aspects of disaster relief. The voluntary agencies have done heroic work and are justifiably suspicious of “yet another survey” and “yet another task force.” The Fogarty International Center at NIH is providing a place for high-level communication between advanced bio-medical scholars from overseas (Fogarty Scholars) and their American counterparts, and has a reception center for international visitors to scientific conferences here; although this is a very important initiative in the research and educational sectors, it is a long way indeed from the comprehensive international health activities with which we as a nation must be involved in the field if we are to have an impact on the current health needs of developing nations.

The Department of Defense maintains a number of research facilities in the tropics, and Congress directly funds the Gorgas Memorial Laboratory in Panama. It is unlikely that a truly international health program could be developed under the aegis of the Department of Defense—they may not want it and it is quite certain that other American agencies and individuals as well as recipient countries might well be more than suspicious of such a marriage. However, I firmly believe that these DOD facilities and activities could be developed and coordinated for more effective service to America, the host countries, and medicine through an International Health Agency dignified by Congress with a clear mandate to *involve* and *identify* the U.S.A. with medical needs around the world, with annual access to the halls of decision here with an opportunity to begin anew without the burdens of past reputation and failures, without being a token unit orphaned in a vast department. To succeed, the program envisioned needs that drive, commitment and recognition of those elected by the American people, the people who want so desperately to serve and be seen in a decent way overseas.

If one agrees that this philosophy is correct, and that we in America ought to become more involved in international medical activities, it is often asked “Is this not already being done by the World Health Organization?” And, if not,

shouldn't it be? First of all it is clear that it is not being done, and as I point out in the introduction to *THE UNTAPPED RESOURCE* the budget of the World Health Organization is one-tenth that of the New York City Health Department. The World Health Organization is an advisory body that, with few exceptions such as malaria, does not become involved in the delivery of health care or services. Certainly it cannot be expected to do so with its budget. Nor, do I believe, it desires to do so. The World Health Organization represents probably, the ultimate consensus of opinion on health problems, but it is unrealistic to think that consensus among 131 voting members is likely to come rapidly enough to respond to medical disasters, nor does it have the personnel, the funds or the mandate, even if it had the desire to do so. The United States is a leading member of the World Health Organization and we contribute 43% of the total budget. If we were to contribute, for example, the relatively modest amount of money requested by the bill before you today, we would then be contributing about 60%. Would that be a World Health Organization?

Although all people active in international health are firmly convinced that WHO represents one of the great successful endeavors by the family of nations—nothing in my comments should be taken as criticism of this organization. I nonetheless feel that to relegate all international health responsibilities and opportunities to WHO is as if we were washing our hands of the problem and moving it from one plate to the next. I think it avoids the opportunities, as well as responsibilities, that are offered to us as American citizens.

I know that there is a philosophic camp that believes that all international assistance ought to be through multilateral agencies—I just am not of that camp and feel we have a unique chance to serve America, and the peoples of the world as well as the international organizations, by becoming forcefully involved in world medicine through a newly created International Health Agency. This would in no way lessen the scope or role of the WHO, but it would clearly demonstrate America's willingness to contribute to that war we can win and in doing so so would provide the alternative we are seeking in our foreign image.

No reasonable person working—certainly not in medicine—in the developing countries seeks credit for every act, as a tit for a tat, but all of you know that there is, in many parts of the world, and sometimes with justification, a stigma on our name as Americans and it is the silent steady work of humane endeavors that will alter that impression, both at home and abroad.

Should health be separated from the other activities in development? That is a very good question and, if the world were perfect, I presume my answer would be no. But the history of our development activities overseas tells us clearly that medicine has either not been appreciated or has not demanded an adequate voice and has received an ever diminishing proportion of the development budget. As I pointed out above, security now accounts for 52% of our total foreign assistance program. There is nothing, certainly, farther from the goal of all people working in international health than the isolation of medicine from related developments in agriculture and education and industry and democracy. If the proposed International Health Agency were to work well, and surely if it were to be directed by thoughtful and knowledgeable people in international health activities, then coordination of efforts and cooperation with those in other disciplines would be guaranteed. Given the failure of health to be recognized as a priority item in foreign assistance, given the vast network of missionary and voluntary agencies working overseas who desire to be identified with America, but who are justifiably hesitant to do so through existing organizations and agencies, given the multitude of federally-funded medical programs working in isolation even from one another overseas, given the clear priority that health has in every developing country, and, most importantly, given the clear desire of the American people to be involved and identified with humane endeavors overseas—it seems to me, there is no alternative at the present time but that you, as our leaders, provide the organizational apparatus necessary to elevate international health to a position of significance and dignity in this country.

I pointed out in the introduction to my book how not all medical programs overseas are successful. During my time in Egypt one of the major projects carried on at that time by our government was on zinc metabolism in Egyptian dwarfs. I still recall how both Egyptian physicians and political leaders, knowing of this "research", asked whether we had chosen that topic to offend when it was quite obvious that they had enormous other medical problems preventing them from developing as a people and a nation. Better direction and coordination of our medical activities overseas, and a clearer recognition of local needs and priorities, is sorely needed.

During my discussions regarding the bill before you, the question has been raised—can we afford it? I think the question really should be—for the many reasons given above—can we afford not to do it? As obliged as you are to carefully consider expenditures, I can only submit that appropriations requested for international health activities by a new agency will almost assuredly pay dividends beyond any expectations of a government accustomed to substantial outlays of funds.

Unless we address ourselves to the health problems of the developing world, can we expect them to economically develop? This will be considered in more detail by Dr. Perlman before your Committee. If we do not try to assist the developing nations towards better health, can we expect the economic growth that will be necessary for American export markets in the years to come, and, even more importantly, can we expect the world stability that we seek? If we do not involve ourselves overseas in international health problems we will be, in this jet age, more and more the recipient of those problems on our own shores. If we do not assist the developing countries in solving their health problems, we will surely have more importations of human, as well as animal, diseases. The rapidity with which infections, such as the equine encephalitis currently spreading in the southern United States, can afflict man and animals, and the economy of an area, is so obvious that it hardly needs comment.

This country sees 140 million international travelers every year; would it not be less expensive—if we even consider the problem solely at that mundane level—for us to concern ourselves beforehand in this battle to contain infections rather than treat them on our shores?

We certainly do not have all the answers. We do know, however, that the major diseases of the developing world are the infectious diseases for which, in many instances, we do have specific vaccines and medicines that can radically alter the epidemic status of afflictions that have cursed mankind for centuries. Dr. Lythcott will review some of his own experiences with smallpox eradication in West Africa and I could tell you of my own work in epidemics in East Africa and Asia. In most instances, we do have the diagnostic tools available for rapidly defining the presence and incidence of the major diseases. For the past seven years I have worked on and off in Somalia—at the invitation of the Somalia government—helping to define their diseases so that they could use data on local diseases to devise a health system *within their own framework for their own local problems*.

Many of the studies in this program were done at our National Center for Disease Control in Atlanta, Georgia, as a personal cooperative work between myself and a colleague, but that type of laboratory support could be made available so that people working around the world might better define local problems so that local solutions could be devised. Missionaries could be educated and directed to rechannel some of their energies from the emotionally satisfying therapeutic ventures to those in community health that will have greater, more long-lasting impact. I have assisted quite a few missionary workers around the world, and I know that there would be few, if any, of that group who would not readily alter their approach to better serve their constituents if the means to do so were explained and provided.

I concluded the report on the study in Somalia with an old Somali poem:

"Is not he who never fails you in your weakness one of the brethren?"

That, after all the words, is what this is all about. It is whether we, as a nation, are going to identify ourselves clearly with the priority need of people around the world as they see it. We have personnel working in this field all over the world but we, as a nation, have failed to identify with them and so they work in isolation. We have federal programs working overseas but they are uncoordinated. We have international health sections in vast departments, such as HEW and AID, but they are small and, often for justifiable reasons, are unlikely to be able to expand or have the flexibility to encompass the challenges and opportunities that are present. We have international organizations and these should be supported, but they are not, the final or sole answer for America's involvement in the international health arena. We have the war and we can win it, but it will take your direction and mandate to accomplish this.

I have limited my comments here, at the suggestion of the Committee and Legislative assistants to a broad over-view. Other speakers will address themselves to specific problems and opportunities in medicine and diplomacy and economics.

I shall be happy, needless to say, to answer any specific questions that any of the Members may have.

Response to Question posed by Senator Javits

Prepared by Drs. C.E. Taylor
J. Bryant

Question: "What is an appropriate mix for U.S. assistance to international health activities?"

The key to finding an appropriate balance in U.S. funding for international health activities is to better define the functions and responsibilities of the various organizations involved and their interrelationships. Adjustments in the funding mix can then be made on a flexible and continuing basis.

The public organizational mix of U.S. Government agencies is in special need of attention. The prospects for getting a single U.S. agency to assume all responsibility for international health do not seem good even if it were desirable. There are too many existing legal and organizational complexities and vested interests. Particularly baffling is the polarization between the need for technical linkages with health professionals as represented by HEW and the diplomatic constraints which require international programs to be part of the Department of State and AID. It seems increasingly evident the more we study this problem that a single official international health agency would probably be less able to cover all the required functions effectively than an appropriate mix of agencies. An effort has, however, been made to provide coordination of private activities through the new National Council for International Health and the proposed General Assembly for International Health.

While a detailed proposal developing an acceptable organizational structure will require more study, a tentative suggestion is to develop a stronger health unit in AID with earmarked funding similar to that already provided for population activities and another strong unit in HEW with clear distinction in their functions. Then there should be a joint coordinating body with senior representation from AID, HEW, the National Council for International Health and other agencies. This group could set policy, maintain communications and advise Congress and the Administration on the continuing mix of funding and programs. It could also help in U.S. relationships with multilateral international agencies, especially those related to the U.N. and WHO. Appropriate mechanisms can then be worked out for adapting the response of the various U.S. agencies to the particular needs and resources of less developed countries and for collaborative arrangements with the more developed countries.

October 3, 1972

Senator HUGHES. The hearings are closed.
(Whereupon, at 12:50 p.m., the special subcommittee recessed, subject to the call of the Chair.)



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