INTENSIVE IMMUNIZATION PROGRAMS

HEARINGS

BEFORE THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE HOUSE OF REPRESENTATIVES

EIGHTY-SEVENTH CONGRESS

SECOND SESSION

ON

H.R. 10541

A BILL TO ASSIST STATES AND COMMUNITIES TO CARRY OUT INTENSIVE VACCINATION PROGRAMS DESIGNED TO PROTECT THEIR POPULATIONS, ESPECIALLY ALL PRESCHOOL CHILDREN, AGAINST POLIOMYELITIS, DIPHTHERIA, WHOOPING COUGH, AND TETANUS, AND AGAINST OTHER DISEASES WHICH MAY IN THE FUTURE BECOME SUSCEPTIBLE OF PRACTICAL ELIMINATION AS A PUBLIC HEALTH PROBLEM THROUGH SUCH PROGRAMS

MAY 15 AND 16, 1962

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INTENSIVE IMMUNIZATION PROGRAMS

TUESDAY, MAY 15, 1962

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The committee met, pursuant to notice, at 10:12 a.m., in room 1334, New House Office Building, Hon. Oren Harris (chairman of the committee) presiding.

The CHAIRMAN. The committee will come to order.

Today the committee begins hearings on another important administration proposal, H.R. 10541, commonly referred to as the Vaccination Assistance Act of 1962.

As chairman of the committee I introduced the bill at the request of the Secretary of Health, Education, and Welfare made by letter, dated February 27 of this year, addressed to the Speaker of the House.

I think, for the record, at this point a copy of the letter should be included in the record, together with a copy of the bill.

(The letter referred to plus a copy of H.R. 10541 and agency reports follow:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, D.C., February 27, 1962.

Hon. JOHN W. MCCORMACK,
Speaker of the House of Representatives,
Washington, D.C.

DEAR MR. SPEAKER: I am enclosing for your consideration a draft of a bill to assist States and communities to carry out intensive vaccination programs against poliomyelitis and certain other infectious diseases.

This proposal legislation would carry out the President's recommendation for such assistance in his special health message.

Modern medical research has provided us with vaccines capable of conquering certain infectious diseases which have been major threats to the public health, and more such preventive agents can be anticipated in the near future. The purpose of this bill is to provide Federal leadership in assuring that these medical discoveries will be so utilized as to achieve the maximum benefits and protection to the public.

The draft bill would amend the Public Health Service Act to authorize a short-term program of special project grants to States and communities for intensive vaccination programs against poliomyelitis, diphtheria, whooping cough, and tetanus. It would also authorize similar aid for intensive programs directed toward other major infectious diseases when vaccines or other preventive agents become available which are capable of eliminating any such disease as a public health problem.

The need for this proposed authorization can be illustrated by a brief review of the development and application of the Salk vaccine for the prevention of poliomyelitis. Seven years ago medical research developed, for the first time, an effective preventive measure against this serious disease. As soon as the vaccine became available in adequate supply, the health resources of the Nation were mobilized in an effort to accelerate its distribution and to assure its availability to succeptible persons throughout the country. The results to date have been very gratifying, as indicated by the sharp drop in its incidences of poliomyelitis throughout the Nation in recent years.

Despite this progress, however, poliomyelitis has not yet been truly conquered in the United States, as evidenced by recent studies of the immunization status of our population. These studies reveal that large segments of the population in all parts of the country still have little or no protection against polio. The largest of these unprotected groups is comprised of children under 5 years of age. Although these children are particularly susceptible to poliomyelitis, substantially less than one-half of them have been adequately protected through vaccination. Apart from their individual susceptibility to the disease, these children, together with other unvaccinated persons, constitute a community epidemic hazard which must be eliminated if we are to complete our conquest of poliomyelitis.

This pattern of incomplete public protection, with large population groups remaining unvaccinated, is not confined to poliomyelitis. On the contrary, it is very closely paralleled in the case of other diseases for which effective vaccines are available—diphtheria, whooping cough, and tetanus. Indeed, the very same groups, and particularly the preschool children, who are lacking in protection against poliomyelitis are also unprotected against these other serious infectious diseases. This common problem arises from the fact that these groups are the most difficult to reach through ordinary vaccination programs.

If we are to overcome the public health hazards represented by this pattern of incomplete vaccination protection, a two-stage national effort will be required. First, and most immediately necessary, is a nationwide program of intensive community vaccination campaigns aimed at the coverage of all substantial groups of unvaccinated susceptible persons. Second, these intensive programs must be followed up with measures to strengthen regular ongoing vaccination programs, with particular attention to more effective coverage of the newly born each year.

The proposed draft legislation is directed primarily toward the first step in this effort. It would authorize special Federal assistance to stimulate and assist in financing intensive community vaccination programs initiated prior to June 30, 1965, which are directed toward elimination of our present deficiencies of vaccination against poliomyelitis, diptheria, whooping cough, and tetanus. Under the bill these programs must be so designed and conducted as to achieve the immunization of practically all susceptible persons in the community, particularly children who are under the age of 5 years. Convenience and inexpensiveness will be the deciding factors to many groups of individuals who have not been previously immunized. It will, therefore, be necessary for each program to provide enough public or nonprofit community vaccination facilities to vaccinate at no or low cost all who wish to avail themselves of this method of vaccination against poliomyelitis, diphtheria, whooping cough, and tetanus. or its administration. However, for those people who prefer to turn to their private physicians for their vaccinations, free vaccine purchased with the aid of Federal funds could also be made available to their physicians for vaccination of children under 5.

Federal grant funds could be used for the purchase of vaccine for children under 5 years of age and for the salaries and related expenses of additional State and local health personnel required to promote and organize intensive community programs and to maintain the epidemilogic and laboratory surveillance required. The States and communities, for their part, would be responsible for supporting, through public funds or otherwise, all other elements of the intensive programs—including the services of physicians, nurses, and other personnel required in the conduct of each community program, and the purchase of vaccine for persons other than children under five. The methods of organizing and conducting local programs—including the choice as to which of the available polio vaccines will be used for different groups—would be left to State and local determination.

With respect to the followup or vaccination maintenance programs, the draft bill specifies that an "intensive community vaccination program" shall include plans and measures looking toward strengthening of ongoing, community programs. * * *" Federal assistance under this proposed new program would be available only for the development and installation of such plans and measures, however. It would not be available for the continuing support of these ongoing programs. Whatever Federal aid may be required for this purpose would be provided, as it is now, through the regular matching grant programs authorized by existing provisions of the Public Health Service Act and by title B of the Social Security Act.

In addition to the provisions relating specifically to programs of vaccination against poliomyelitis, diphtheria, whooping cough, and tetanus, the draft bill also authorizes similar aid for intensive programs directed against other serious infectious diseases, such as measles, for which effective preventive agents may become available in future years. This "standby" authorization does not commit the Federal Government to participate in the costs of all immunization programs deriving from the discovery of new vaccines or preventive agents in future years. It is specifically limited to programs directed against an infectious disease which "represents a major public health problem * * *" and which is "susceptible of practical elimination as a public health problem" through the kind of intensive community programs for which grants would be authorized.

In our opinion, the provision of Federal aid to States and communities for the purposes authorized by the draft bill will greatly add to the protection of the Nation's health and will represent a forward step in assuring that future advances in medical research will be promptly and effectively applied toward this national objective.

We shall appreciate it if you will refer the enclosed draft bill to the appropriate committee for consideration.

In compliance with Public Law 801, 84th Congress, there is enclosed a statement of estimated costs and personnel requirements which would be entailed by enactment of the proposed legislation.

The Bureau of the Budget advises that enactment of this legislation would be in accord with the program of the President.

Sincerely,

ABRAHAM RIBICOFF, *Secretary.*

Cost estimate

[In millions of dollars]

	1963	1964	1965
New obligational authority:			
Grants	12.7	9.9	9.9
Vaccine	(8.5)	(5.7)	(5.7)
Other	(4.2)	(4.2)	(4.2)
Direct operations	.875	.875	.875
Total	13.575	10.775	10.775
Estimated expenditures: [1]			
Grants	8.845	12.480	9.9
Vaccine	(5.695)	(7.650)	(5.7)
Other	(3.150)	(4.830)	(4.2)
Direct operations	.656	1.007	.875
Total	9.501	13.487	10.775

[1] No expenditures are estimated beyond the 1st 3 years with respect to the polio, diphtheria, whooping cough, and tetanus vaccination programs except as completion of intensive vaccination programs begun during the 1st 3 years may require the rescheduling of some expenditures beyond June 30, 1965.

[H.R. 10541, 87th Cong., 2d sess.]

A BILL To assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Vaccination Assistance Act of 1962".

SEC. 2. Part B of title III of the Public Health Service Act is amended by adding after section 316 the following new section:

"GRANTS FOR INTENSIVE VACCINATION PROGRAMS

"SEC. 317. (a) There are hereby authorized to be appropriated for the fiscal year ending June 30, 1963, and each succeeding year, such sums as may be necessary to enable the Surgeon General to make grants to States and political subdivisions or instrumentalities of the States under this section. Such grants may be used to pay that portion of the cost of intensive community vaccination programs against poliomyelitis, diphtheria, whooping cough, and tetanus which is

reasonably attributable to (1) purchase of vaccines needed to protect children under the age of five years and (2) salaries and related expenses of additional State and local health personnel needed to promote and organize such programs, and personnel and related expenses needed to maintain additional epidemiologic and laboratory surveillance occasioned by such programs. Such grants may also be used to pay similar costs in connection with intensive community vaccination programs against any other diseases of an infectious nature which the Surgeon General finds represents a major public health problem in terms of high mortality, morbidity, disability, or epidemic potential and to be susceptible of practical elimination as a public health problem through intensive immunization activity over a limited period of time with vaccines or other preventive agents which may become available in the future.

"(b) For purposes of this section an 'intensive community vaccination program' means a program of limited duration which is so designed and conducted as to achieve, with the cooperation of practicing physicians, official health agencies, voluntary organizations, and volunteers, the immunization over the period of the program of all, or practically all, susceptible persons in a community, particularly children who are under the age of five years, and which includes plans and measures looking toward the strengthening of ongoing community programs for the immunization of infants and for maintenance of immunity in the remainder of the population. No grant may be made under this section with respect to an intensive community vaccination program against poliomyelitis, diphtheria, whooping cough, and tetanus which begins after June 30, 1965.

"(c) Payments under this section may be made in advance or by way of reimbursement, in such installments, and on such terms and conditions as the Surgeon General finds necessary to carry out the purposes of this section, and the Surgeon General may, if the applicant State or other political subdivision or instrumentality so requests, purchase and furnish vaccines and other preventive agents in lieu of making money grants for the purchase thereof.

"(d) The Surgeon General, at the request of a State or other public agency, may reduce the grant to such agency under this section by the amount of the pay, allowances, traveling expenses, and any other costs in connection with the detail of an officer or employee of the Public Health Service to such agency when such detail is made for the convenience of and at the request of such agency and for the purpose of carrying out a function for which a grant is made under this section. The amount by which such grant is so reduced shall be available for payment of such costs by the Surgeon General, but shall, for purposes of subsection (c), be deemed to have been paid to such agency.

"(e) Nothing in this section shall limit or otherwise restrict the use of funds which are granted to a State or to a political subdivision of a State under title V of the Social Security Act, other provisions of this Act, or other Federal law and which are available for the purchase of vaccine or for organizing, promoting, conducting, or participating in immunization programs, from being used for such purposes in connection with programs assisted through grants under this section."

DEPARTMENT OF AGRICULTURE,
Washington, April 9, 1962.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D.C.

DEAR MR. HARRIS: Thank you for giving us an opportunity to report on H.R. 10541, a bill to assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs.

We find upon review that this bill does not affect matters within the jurisdiction of this Department. However, since we consider this bill would benefit many children in the rural areas of the Nation we believe its adoption would be desirable.

The Bureau of the Budget advises that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely yours,

ORVILLE L. FREEMAN, *Secretary.*

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., March 28, 1962.

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: This is in reply to your letter of March 7, 1962, requesting the views of the Bureau of the Budget on H.R. 10541, a bill to assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs.

This bill provides for a 3-year program of grants to States and their political subdivisions for the immediate initiation of intensive community vaccination campaigns against poliomyelitis, whooping cough, diphtheri, and tetanus. The Federal funds authorized by the bill would be used for the purchase of the required vaccines for all children under 5 years old and for the salaries and expenses of the additional State and local health personnel required for the organization and promotion of the community campaigns and to provide epidemiological and laboratory surveillance of the program. In addition to the special provisions relating to these illnesses, the bill authorizes similar program against other infectious diseases which represent major public health problems when vaccines or other effective preventive agents become available.

This proposed legislation was prepared by the administration and would carry out the recommendation for a nationwide vaccination program contained in the President's message to the Congress on February 27, 1962, on health programs. I am authorized to advise you that the enactment of H.R. 10541 would be in accord with the program of the President.

Sincerely yours,

PHILLIP S. HUGHES,
Assistant Director for Legislative Reference.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, May 8, 1962.

B–74254

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR MR. CHAIRMAN: Your letter of April 4, 1962, acknowledged April 6, 1962, forwarded for our comments and report H.R. 10541, 87th Congress, entitled "A bill to assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs."

The bill would carry out the terms of the title clause by authorizing appropriations for the fiscal year 1963 and succeeding fiscal years to enable the Surgeon General to make grants to States and their political subdivisions or instrumentalities for this purpose. While grants may not be made for vaccination programs against poliomyelitis, diphtheria, whooping cough, and tetanus which begin after June 30, 1965, there is no time limit on other vaccination programs.

We have no special information on the subject of the proposed legislation and therefore, make no recommendation concerning the merits of H.R. 10541. However, we wish to comment on certain aspects of the bill.

The bill provides for an additional grant program to be administered by the Public Health Service. No provision is made in the bill nor in legislation applicable to other grant programs now authorized by the Public Health Service Act, as amended, to require a grantee to keep adequate cost records of the projects to which the Federal Government makes financial contributions, or specifically authorizing the Surgeon General or the Comptroller General access to the grantee's records for purposes of audit and examination. In view of the increase in grant programs over the last several years we feel that in order to determine whether

grant funds have been expended for the purpose for which the grant was made the grantee should be required by law to keep records which would fully disclose the disposition of such funds. We also feel that the agency as well as the General Accounting Office should be permitted to have access to the grantee's records for the purpose of audit and examination. We therefore suggest that consideration be given to amending the bill to include such requirements with respect to the proposed new program, or preferably to an amendment of the Public Health Service Act to cover all grant programs therein authorized. The latter could be accomplished by the following language:

"Records and Audit

"(a) Each recipient of assistance under this Act shall keep such records as the Surgeon General shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such grants, the total cost of the project or undertaking in connection with which such funds are given or used, and the amount of that portion of the cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

"(b) The Secretary of Health, Education, and Welfare and the Comptroller General of the United States or any of their duly authorized representatives shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipients that are pertinent to the grants received under this Act."

In administering the above provision we do not contemplate making a detailed examination of the books and records of every recipient of a grant, or even a major part of them. However, selective checks may be made to provide reasonable assurance that grant funds are being properly applied or expended.

Sincerely yours,

JOSEPH CAMPBELL,
Comptroller General of the United States.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
March 14, 1962.

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for a report on H.R. 10541, a bill to assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs.

H.R. 10541 embodies the administration's vaccination proposal. In the form of a draft bill it was transmitted by this Department to the Speaker of the House of Representatives on February 27, 1962, and was referred to your committee on March 5.

For the reasons given in our letter to the Speaker in support of the bill we recommend its early enactment.

Sincerely,

ABE RIBICOFF, *Secretary.*

DEPARTMENT OF LABOR,
Washington, April 4, 1962.

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN HARRIS: This is in further response to your request for comments on H.R. 10541, a bill to assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs.

There is little doubt as to the need for preventive measures for reducing the incidence of these diseases which cause unnecessary suffering or even death among our population, especially young children. The Department of Labor is vitally concerned with this situation, particularly in view of the fact that practical methods of preventing and controlling such diseases are now available. We, therefore, favor effective legislative action to deal with this problem.

As you know, the President in his message on health programs of February 27, 1962, stated that "the basic resource of a nation is its people. Its strength can be no greater than the health and vitality of its population. Preventable sickness, disability, and physical or mental incapacity are matters of both individual and national concern."

In view of the foregoing, the Department of Labor supports the enactment of H.R. 10541. We prefer, however, to leave comment on the technical aspects of the bill to those agencies directly concerned with its administration.

The Bureau of the Budget advises that there is no objection to the presentation of this report from the standpoint of the administration's program.

Yours sincerely,

ARTHUR J. GOLDBERG,
Secretary of Labor.

The CHAIRMAN. The purpose of the proposed legislation is to authorize a short-term program of special project grants to States and communities for an intensive vaccination program against polio, diphtheria, whooping cough, tetanus, and other major and destructive diseases as vaccines become available for them.

The members of the committee, who served on the committee when the Salk vaccine legislation was under consideration, will recall the tremendous interest which existed at that time in the new vaccine that promised to eradicate polio. We all know of the tremendous strides that have been made toward the achievement of this laudable objective.

Secretary Ribicoff's letter indicates, however, that many children under 5 years of age who are in the most susceptible age group are still unprotected against polio as well as other diseases for which vaccines are available.

The program proposed in this legislation is designed to bring about greater protection particularly for children in this age group.

Vaccination programs frequently arouse antagonism on the part of certain groups and individuals who do not believe in the wisdom of such programs. The proposed legislation is no exception.

I understand that some witnesses, who will testify this morning, are seeking assurances that the legislation if enacted, will not result in compulsory vaccination.

It is unusual for the committee to hear the opposition before hearing from the administration, which has reguested enactment of this legislation. Sometimes we have got to cut the cloth to fit the pattern, and today is no exception.

The Secretary, Mr. Ribicoff, will testify as a witness in support of the legislation on behalf of the administration, but he is unable to be here today. We felt, however, that we could not delay the beginning of the hearings because the committee has a very heavy schedule, and I have some difficulty in working out a program to accommodate all of the phases of our work, and enabling the full committee to discharge its responsibility and at the same time leaving opportunities for the important work of the subcommittees.

This morning our first witness will be Dr. Russell E. Teague, commissioner of health, representing the American Public Health Association.

Dr. Teague, we will be glad to hear your statement.

STATEMENT OF DR. RUSSELL E. TEAGUE, COMMISSIONER OF HEALTH, FRANKFORT, KY., ON BEHALF OF THE AMERICAN PUBLIC HEALTH ASSOCIATION

Dr. TEAGUE. Mr. Chairman and members of the committee, I am Dr. Russell E. Teague, commissioner of health, of Kentucky. I am a doctor of medicine with a specialty in public health.

I am chairman of the committee on public policy and legislation of the American Public Health Association, and am here today representing this group.

The American Public Health Association is composed of approximately 33,000 persons engaged by State and local and voluntary health agencies, working in the field of preventing disease amongst the population. We have four diseases for which we have excellent vaccines available. These diseases are poliomyelitis, diphtheria, whooping cough, and tetanus.

These vaccines are very effective in preventing these diseases, and our only thought is in getting everyone to take them and be protected. We need an intensive program to get children to take the vaccines that are available to them.

The States for many years have had programs, relying upon educational techniques and making vaccines available free to indigent children. Our medical societies have been active in promoting immunization programs, but we still have not accomplished the end that we could by applying what we know and applying these vaccines to the total population.

Diphtheria is still quite prevalent in many parts of our country. In fact, in the last 6 years I have had two serious epidemics of diphtheria. In Meade County, in 1957, we had 100 cases with 4 deaths amongst young children. In Georgetown, Ky., last year we had 50 cases with 2 deaths, and these were severe epidemics of the most virulent kind, and it took a lot of diligence to save the lives of the children who had the disease.

We are still having too much poliomyelitis. The effectiveness of the Salk vaccine has demonstrated that it can be eliminated but not enough children have taken the vaccine.

Studies made by the Public Health Service indicate that on a nationwide basis not more than 38 percent of children under 6 have had polio vaccine. Many communities have given more than this and many communities have given less than this, but this is on an average for the country as a whole.

Whooping cough is one of the most deadly diseases we have in children under 6 years of age, and especially under 2 years of age. It is a very serious disease in infants.

It quite often goes into pneumonia and causes death in the children. And, of course, tetanus is a very fatal disease that no one should have, because the tetanus vaccine is the best vaccine that has ever been devised.

Every man who has ever served in the military services has had tetanus vaccine but, unfortunately, so many of our young children do not get it.

Parents who employ pediatricians to look after their children usually see that they receive a combination of these three, DPT; that is diphtheria, pertussis, and tetanus vaccine.

And some general practitioners give it in their practice but the number of children that receive this is not enough. So the American Public Health Association, with its 33,000 members, does endorse this bill and agree with it in principle.

Mr. Chairman, there is one part of the bill we do not agree with, and——

The CHAIRMAN. Tell me, what did you say DPT meant?

Dr. TEAGUE. Diphtheria, pertussis, and tetanus.

"Pertussis" is the medical word for whooping cough.

The CHAIRMAN. Thank you.

Dr. TEAGUE. As I stated, the American Public Health Association agrees with your bill and endorses it in principle, and it thinks that it would be a good thing for the country.

We do feel, however, that the Federal Government should deal with the States rather than dealing with local political subdivisions and instrumentalities of the States, because the State health departments should coordinate their entire vaccinating programs within the confines of the State.

The constitutions of the various States puts the responsibility for the health of the people in the State, and in many areas the States have delegated this to local boards of health in local communities, but the States still have the responsibility of keeping track of these diseases that are occurring and taking steps to control those diseases.

Therefore, our organization would like to see H.R. 10541 amended to leave out the political subdivisions and instrumentalities within the States so that the grants would be made to the State, and let the State health departments arrange for the programs of distributing it within the borders of the State.

On the second page, lines 7 and 8, the words "and politcal subdivisions or instrumentalities of the States" should be deleted, we believe, with similar deletions in other parts of the bill where these words occur.

Our experience with the Public Health Service in other grant areas, where the State boards of health and the State health commissioners deal directly with the Public Health Service on formula grant bases, indicates this method does provide a good instrument for us to devise programs within our States to eradicate disease.

The competence for controlling disease lies within your State health departments, and the American Public Health Association believes that this bill would work better if the Public Health Services would deal with the State.

Again, I reiterate, the American Public Health Association endorses this bill and is in favor of it.

Thank you, sir.

The CHAIRMAN. Doctor, I want to thank you for your statement, and we appreciate your suggestions.

I shall be glad to consider further your suggestion with reference to the political subdivisions or instrumentalities of the States. I think consideration probably will have to be given as to whether or not the program will go through the States. I think it was intended that it be decentralized, so the people can go to their local health unit in their county.

Dr. TEAGUE. Oh, yes, sir. What I mean is that the formula grant for the Federal Government dealing with the community should be through the State.

The vaccine would be given at the local community level, and the money would be transmitted by the State down to the local communities, just as we do in all of the other formula grants that the States receive from the Public Health Service.

I did not mean that the vaccine would not be given to local communities, but this bill, the way it is written, would permit the Public Health Service to deal directly with a community within a State without the funds or the vaccine going through the State department of health.

The CHAIRMAN. I am not sure that was so intended, but we will pursue it and find out.

Dr. TEAGUE. Thank you.

The CHAIRMAN. Are there any questions?

Mr. MACK. Yes.

Doctor, how much money do you think would be necessary to carry out this bill?

Dr. TEAGUE. This is quite difficult to determine at the present time.

I think this bill contains a statement that this would be a short-range intensified program. An estimate that has been made by the Department of Health, Education, and Welfare would call for something in the order of $9 to $10 million for a period of 3 or 4 years to completely immunize all of the preschool children in the country. There are approximately 4.5 million children born each year, and this should be kept up. That would be 4.5 million children immunized each year.

Now, most of this immunization is done by private practitioners in their practice that is being given now, and these funds that would be made available under this act—it does not so appropriate but it would be required under this act—would be to fill the gap for those who are not now getting the vaccine from private practitioners, and to stimulate physicians to do more.

I think if we could start programs in the communities it would result in more immunizations by private practitioners.

The vaccine, according to this act, may be used by private physicians and practicing physicians, by official health agencies, voluntary health agencies, or any other group that can put on an immunization program.

I have no exact figures, sir. I believe Mr. Ribicoff would probably have these when the Department makes its presentation, but my best guess would be approximately 9 million a year for 3 or 4 years.

Mr. MACK. The individuals today are paying for these vaccinations; is that right?

Dr. TEAGUE. Yes.

Mr. MACK. Through the private practitioners?

Dr. TEAGUE. They do, but, as I stated in my testimony, only 38 percent of the children go to doctors and pay for it now.

So there is a large gap of unvaccinated children in the population.

Mr. MACK. You are suggesting, then, that we make these vaccines available to those who are not getting them today?

Dr. TEAGUE. I think the vaccines should be made available to the States by the Federal Government as an assistance to the States, to provide an impetus to get more children immunized.

This could be used or it could be given in public clinics. It could also be given by private physicians in their offices for which the physician might make a charge for administering the vaccine.

Mr. MACK. Today they charge for the vaccine as well as their services?

Dr. TEAGUE. The vaccine, yes, is bought through commercial channels today.

Mr. MACK. And if this bill were approved, then the vaccines would be made available free?

Dr. TEAGUE. For preschool children; yes, sir.

Mr. MACK. For all preschool children, including those who are today paying for it?

Dr. TEAGUE. No. I think the amount or the figure I gave you, of $9 million, was the difference between those now immunized and those who are not. It is enough to fill the gap.

Mr. MACK. Is it your idea that the people who are able to pay for it should continue to pay for it?

Dr. TEAGUE. Yes, sir.

Mr. MACK. And this bill would be for those people who are not financially able to take care of it?

Dr. TEAGUE. Partly, and partly as an incentive for those who are not now going to doctors to get it.

Many areas do not have pediatricians and have a shortage of general practitioners, and the physician is so involved in taking care of the sick that he does not have time to put on an immunization campaign. This is a function usually of the official health department of the community, to see that campaigns and public clinics are set up to administer the vaccine.

We have many counties in my State with only one physician, and he is involved in treating the sick, and he does not have time to do an immunization program. This is to implement what the practicing profession is now doing.

Mr. MACK. Well, would it not really be, in effect, though, making the vaccines available to all preschool children free?

Dr. TEAGUE. This is true. It could be that way, but it would take more money than the $9 million.

Mr. MACK. As a matter of fact, it would be very difficult to carry out the program without making it available free to those people who are——

Dr. TEAGUE. I would say this would vary from community to community, depending upon the tradition and the practices of that community.

Traditionally, in some counties all the physicians chip in with the local health department and give the vaccines free at the present time.

In other areas physicians give it to those who can pay, and charge for it, and give it to those who cannot, without charge. And State and local health departments are now buying vaccine in large quantities for the indigent.

We believe that we need the stimulation of Federal interest, Federal leadership, and Federal assistance to the States to give that little impetus necessary to get more children immunized.

Mr. MACK. Thank you, Doctor.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Doctor, at first blush, it seems as though you are proposing about $180,000 each for 50 States.

Do you think that it is economic for the States to come to the Federal Government to set up all of the machinery for a $180,000 stake?

Dr. TEAGUE. Sir, I am not quite sure that the money is as important as the Federal leadership to get a nationwide program going at one time to wipe out the four diseases.

I think the States, many of them, need the money that would be available through such grants because they just now do not have it available to furnish vaccine in large enough quantities.

If States do this independently and separately, which many of them have been doing for past years, there is a hodgepodge of disease control. We would like to see the Nation try to get a uniform program throughout the country.

I am sure you can remember that there was no uniformity in tuberculosis control or venereal disease control until the Federal Government came in with grants to get a uniform program throughout the country going and wipe out certain diseases.

And it takes this sort of coordinated effort on the part of the whole country to wipe out the disease.

Mr. YOUNGER. Then you are not concerned with the appropriation as much as you are with the philosophy of getting the Federal Government to promote it?

Dr. TEAGUE. That is right, and I think the grants are necessary because in this bill it provides not only for funds but the loan of Federal personnel to the States where personnel are not available.

The Public Health Service needs these funds to employ personnel and train them in the field of immunology, and assign them out in the States to help them get these programs going.

Mr. YOUNGER. Why do you advance the idea of segregation in this program?

Dr. TEAGUE. I do not. I do not know what you mean by that.

Mr. YOUNGER. Well, surely, you say that those who can afford to pay for it will receive it and those who cannot, will have to pay for it. Is that not segregation?

Dr. TEAGUE. No. I say that those people who want their children to be immunized should go to a physician and pay for it, and then those who are not motivated sufficiently enough to go to a physician and pay for it might go to a public clinic and receive this vaccine.

Mr. YOUNGER. Yes, but if you are going to have a program should you not furnish the vaccine to all doctors free, and let them participate in the program and vaccinate?

Dr. TEAGUE. I think this would be done insofar as this vaccine is available, but apparently this bill does not provide enough vaccine for everyone.

It only provides enough for children under 5.

Mr. YOUNGER. That is what I mean. But even children under 5, whatever is given——

Dr. TEAGUE. I would be in favor of that, sir, of providing the vaccine free to——

Mr. YOUNGER. Free to all of the practicing physicians to immunize children under 5 years old?

Dr. TEAGUE. I would be in favor of that, sir.

Mr. YOUNGER. You would advocate that?

Dr. TEAGUE. Yes, sir.

Mr. YOUNGER. So that it would be widespread and available to everybody. There would not be any one family who would have to go to the public health or another one having to go to the physician. They can go and get it each time. I should think that the doctors, if they participate in the program, they might very well say, "All right, all the children under 5 we will immunize or give them this vaccine for nothing." You might get that agreement I do not know, but if you are going to have a full program, throughout the United States, it seems to me that you are going to have to get the cooperation of all of the practicing physicians.

Dr. TEAGUE. Absolutely. This is why we are for this bill. We think this will do this very thing that you are saying.

Our objective is to eradicate these four diseases, to get them so controlled that they will just be rare.

We think we can eradicate some of them, and certainly this bill is a step toward doing this.

We have had diphtheria vaccine and whooping cough and tetanus vaccine for many, many years, and the States and communities and medical societies have been working together to try to do it, but we just have not done it.

And I think we need national leadership in the field of immunology to stimulate it, and one way is by providing Federal assistance, through funds and personnel, to provide vaccine for everyone.

Mr. YOUNGER. The only way now is that if you want to get a passport to go to a foreign country you have to have the vaccination——

Dr. TEAGUE. Yes; well, many States have compulsory smallpox vaccination and some States have passed compulsory laws requiring these four diseases to be.

For instance, in my State we have a law just passed by our last legislature, requiring every person from age 6 months to age 18 to be vaccinated against these four diseases.

This is enforced by entrance upon school. They are required to bring a certificate, showing that they have been immunized successfully against these four diseases and smallpox, and many States are passing such laws.

The Federal entrance into this field of promoting immunization would give impetus to more States taking this action and completely eradicating these diseases.

Mr. YOUNGER. For the record, could you furnish us with a list of States that have legislation in this field?

Dr. TEAGUE. Yes, sir.

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(The information requested is as follows:)

States with compulsory vaccination laws

Arkansas: Smallpox.
California: Polio, smallpox.
District of Columbia: Smallpox.
Hawaii: Smallpox, diphtheria, typhoid.
Kansas: Smallpox, diphtheria, pertussis, tetanus, polio.
Kentucky: Smallpox, diphtheria, pertussis, tetanus, polio.
Maryland: Smallpox.
Massachusetts: Smallpox.
Michigan: Smallpox, diphtheria, pertussis, tetanus, polio.
Missouri: Smallpox, diphtheria, pertussis, tetanus, polio.
New Hampshire: Smallpox.
New Mexico: State board of health specifies.
New York: Smallpox.
North Carolina: Smallpox, diphtheria, pertussis, tetanus, polio.
Ohio: Smallpox, diphtheria, pertussis, tetanus, polio.
Pennsylvania: Smallpox.
Rhode Island: Smallpox.
South Carolina: Smallpox.
Virginia: Smallpox.
West Virginia: Smallpox, diphtheria.

Mr. YOUNGER. That is all.

The CHAIRMAN. When you say "this field," you mean insofar as these four diseases are concerned?

Mr. YOUNGER. That is right.

Dr. TEAGUE. I will get that for you.

The CHAIRMAN. Mr. Rogers?

Mr. ROGERS of Texas. Doctor, has there been any discussion, in talking about these bills and this vaccination program, of Federal compulsion?

Dr. TEAGUE. No, sir; no, sir.

Mr. ROGERS of Texas. I notice that you said that this bill would be a step toward the solution of the problem, and I was just wondering if they were anticipating the use of Federal legislation in the same manner as you related is being used in the States to compel this?

Dr. TEAGUE. No, sir. The relationship of the U.S. Public Health Service to the States in the field of health has always been one of grant-in-aid and assistance, and stimulation to the States, and giving us advice and consultation services, and that type of help.

There has been no instance that I know of in which the Federal Government has taken or made any compulsory action except during the war when there was an act to control venereal diseases, by making prostitution illegal in certain parts of the country where troops were located.

That is the only Federal law that I know of in which the Federal Government has had any compulsory act.

Mr. ROGERS of Texas. What I had in mind was indirect compulsion, like you say to a family, "Now, your child cannot go to school unless it is vaccinated."

Dr. TEAGUE. Yes, that can be done at the State level but not at the Federal level.

Mr. ROGERS of Texas. Yes, I understand, but the fact is that you can say to the State, "Unless you do it out of compulsion or a compulsory vaccination law, then you will not be allowed to participate in these grant funds."

Dr. TEAGUE. This could be done but I would not favor that, sir.

Mr. ROGERS of Texas. Now, you say in your State you have a compulsory vaccination law with regard to five or four diseases.

Now, suppose you ran into a religious situation, where you have some people who have certain religious beliefs who do not believe in vaccination, and they say that they will not be vaccinated?

Dr. TEAGUE. Our State law provides for that in all diseases except smallpox. Everyone is required to have that.

But these other four diseases, on those, there is a section in the law that says that people who belong to certain national religious groups, and will present a certificate to the school that their religion, which is a national group, prohibits them from taking the vaccine, if they present this certificate they can be exempt.

These groups are in such small number that I do not believe that this exemption would affect the control of the disease.

However, the law goes further to say, in my State, that if there is an epidemic which occurs, the State board of health may take action to immunize everyone, including the religious exemptions.

Now, most of the States that have passed this law have put a religious exemption clause in it. This provides that if a person will present a statement that they belong to a nationally recognized religious group whose beliefs are against immunization they are exempt from the law.

Mr. ROGERS of Texas. Then the child can attend school?

Dr. TEAGUE. Yes, they can on the basis of that certificate.

But the small number of these particular religious groups in the population is not sufficiently large to affect the total or have any significant effect on the total effect of getting people immunized and eradicating the disease.

Mr. ROGERS of Texas. Now, Doctor, is it your plan under the proposal that this money be furnished the States and the States enter into this program any way they want to?

In other words, they could have mass immunization or they could turn this vaccine, that is purchased, over to doctors?

Dr. TEAGUE. I think I would like to see it left to the States to determine the kind of program that they want.

I would hope that the Public Health Service would offer consultation and guidance, and assistance, to the States in developing these programs. They are doing this already in some diseases.

Mr. ROGERS of Texas. Now, of course, the cost of immunization, if this is turned over to doctors, will depend upon what the doctor charges for inserting the needle.

I mean, one doctor may charge $10 and another $1.

Dr. TEAGUE. This is true.

Mr. ROGERS of Texas. So even though the vaccine is free to the doctor, the charge that the patient is subjected to depends upon what he wants to charge him.

Now, under this bill, Doctor, I notice that there is no limit, as I understand it, on the use of the funds for, we will say, advertising campaigns to get people to be vaccinated.

Is that correct?

Dr. TEAGUE. This would be one part of the total program.

The law specifically says that the Surgeon General shall determine methods of developing a program, an intensified program, to get people to take these vaccines.

So this would empower the Surgeon General to put on campaigns, I would say; yes, sir.

Mr. ROGERS of Texas. To put on television or radio campaigns to get the people to get vaccinated?

Dr. TEAGUE. Yes.

Mr. ROGERS of Texas. In other words, it would go far beyond just the purchase of the vaccine itself and the distribution of it?

Dr. TEAGUE. That is exactly right, and we need a mass educational program on this.

The television industry of this country donates a considerable amount of time now for what they call public service types of programs.

And I think it would be very well if we could get a nationwide mass media educational program for immunization, and it should be done. This bill would provide for that.

Mr. ROGERS of Texas. Thank you, sir.

The CHAIRMAN. Mr. Sibal?

Mr. SIBAL. Doctor, to go back to a point that Mr. Younger made, is it your feeling that an act of Congress would stimulate national attention and would, in effect, provide the missing link of approaching this to a total basis throughout the Nation?

Is that correct?

Dr. TEAGUE. Yes, sir.

Mr. SIBAL. I am concerned about the need for this, if this does not involve a great deal of financial burden on the individual States for the Congress to interject itself in this, and I am concerned with the idea that, in order for any program to be adopted on essentially a nationwide basis, even a program of health, that it takes a congressional act.

Do you not have interstate groups? Do you not have, for example, interstate associations of public health directors?

Dr. TEAGUE. Yes. They will be here to testify later this morning, sir.

The Association of State & Territorial Health Officers will be here, and the organization that I am representing, the American Public Health Association, has State associations in each State.

We have policies on these matters, but we feel that we need guidance from our Federal health department, our Public Health Service, and we think that if they were empowered to enter the field of immunization, to assist the States, that this would add stimulus to the entire program.

Mr. SIBAL. I know you feel that way, but I cannot quite understand why it is necessary.

Certainly you do not have a particularly difficult technical problem in terms of immunizing people with already existing vaccines.

And I would think that a joint effort, through your public health associations, and perhaps the Governors conference, would certainly get each State on the job in this.

And it seems to me that we talk all the time about bringing these things as close to the people as possible and yet, on the other hand,

we say, "Well, here we do not need the money; we do not need any great technical advice, but we need an impression, more or less, of national interest."

Frankly, I am not convinced that this is the kind of thing that is necessary for the Congress to act on.

Dr. TEAGUE. I did not mean to infer, sir, that we did not need the money. I think particularly States like Kentucky and Southern States do need financial assistance from the Federal Government——

Mr. SIBAL. Well, was——

Dr. TEAGUE. And the technical advice of it.

Mr. SIBAL. Well, what is the average cost——

Dr. TEAGUE. Our State health department? About $6 million a year.

Mr. SIBAL. We are talking about an average cost of less than $200,000 for each State.

Dr. TEAGUE. This is for the group of pre-school children under 5, and I think this would do it.

If an appropriation of something like $10 million a year for 3 or 4 or 5 years were made, that would be $50 million and you could eradicate these diseases, I believe, with the existing programs that we now have going on in private practice and so forth. This would be in addition to the existing programs that are now going on.

Mr. SIBAL. But you do not feel that this could be done without congressional action?

Dr. TEAGUE. No, sir. I speak from experience in other disease control programs.

We had a spotty VD control program and a spotty TB control program, and all kinds, until the Public Health Service was empowered to centralize the program and assist the States and get a uniform type of program throughout the country.

And I feel that this would be helpful in case of immunizations.

Mr. SIBAL. You look at the State services as essentially a coordinated part of the Federal service?

Dr. TEAGUE. Through the last 50 years the U.S. Public Health Service, the State health departments, and local health departments, have worked in a partnership arrangement up and down, right down through the grassroots and back up again.

This has been one of the most interesting relationships in government that I have ever witnessed, this partnership arrangement.

It needs coordination at the top level through the 50 States down to the 3,000 counties in the country. Actually, each State health officer is required by Federal law to come to Washington annually and advise the Surgeon General on the nationwide programs, and we do that.

I think this is a unique arrangement of Federal, State, and local partnership: Yes, sir.

Mr. SIBAL. Well, do you feel—well, I will withdraw that question.

The relationship which you describe as a partnership then essentially requires that any attack on health be done through the Federal Government with Federal leadership.

Is that right?

Dr. TEAGUE. It is better done if it is done nationwide at the same time rather than sporadically and spottedly by the various States and communities.

Mr. SIBAL. Well, how about the States who attack these problems within their own borders?

Would a program like this—while I recognize the money is not very great, the principle to me is—would a program, federally developed, in this area essentially put the money in the States which have done nothing rather than in the States which have shown some initiative?

Dr. TEAGUE. I would think not. This bill does not tell how the money—does not spell out how the money would be distributed.

But I would think that it possibly would be distributed on a formula grant basis, based upon population, per capita income, and the need of people, and this sort of thing, like all the other grants are made to us for health purposes.

The States that have done tremendous jobs in immunization are few. There are not many that have attacked this problem wholly.

There are some States that have better immunization programs than other States, and I think this would level it out.

Mr. SIBAL. It would tend to level it out?

Dr. TEAGUE. Yes; so that all the States would have good programs.

Mr. SIBAL. Would it tend to level it out in some areas, such as if a State is doing a superior job, it would level it out to an inferior——

Dr. TEAGUE. No, sir; I would not think so. It would tend to bring the others up to that level. I do not see how it could reduce what a State has already done.

Mr. SIBAL. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Rogers?

Mr. ROGERS of Florida. Mr. Chairman, I have just one question. As I understand it, your feeling is that this should be approached nationwide——

Dr. TEAGUE. Yes.

Mr. ROGERS of Florida (continuing). That it does not do too much good to immunize in just a few areas in particular States; that to really fight the disease and wipe out the disease, if immunization is going to be effective, it must be done all over.

Is that true?

Dr. TEAGUE. That is correct. For instance, you have eradicated polio in Miami by doing it all at one time. Now, why can we not do this for the Nation at one time? This is my belief, that it can be done.

Mr. ROGERS of Florida. I wondered if you had any figures on what the savings might be if we could eradicate these diseases?

Dr. TEAGUE. I do not have figures on that.

I am sure the Department of Health, Education, and Welfare could supply these, because I only have figures for my own State, but it would be a tremendous saving in life and illness, especially in infants who get whooping cough and this sort of thing.

Mr. ROGERS of Florida. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Jarman, do you have any questions?

Mr. JARMAN. No questions.

The CHAIRMAN. You do not pretend that there is any compulsion in this bill itself——

Dr. TEAGUE. No, sir; and I do not think there should be.

I think this should be left to the States and communities, because the enforcement would have to be tied into a school system or something of this sort, and this would be difficult from the Federal level.

The CHAIRMAN. Thank you very much.

Well, just a minute. I do have another question. You stated that you represent the American Public Health Association.

Dr. TEAGUE. Yes, sir.

The CHAIRMAN. Can you speak for the State public health officers?

Dr. TEAGUE. No, sir; not now. Dr. Gray will be here.

I think he is fourth on your list there, and he will be here to speak for the Association of State Public Health Officers sometime today.

The CHAIRMAN. I see. In other words, Dr. Gray represents the State public health officers, does he not?

Dr. TEAGUE. Yes, sir. Yes, sir.

The CHAIRMAN. All right. Thank you.

The next witness is Dr. James E. Perkins, managing director of the National Tuberculosis Association.

Mr. Perkins?

STATEMENT OF DR. JAMES E. PERKINS, MANAGING DIRECTOR, NATIONAL TUBERCULOSIS ASSOCIATION, NEW YORK, N.Y.

Dr. PERKINS. Mr. Chairman and members of the committee, I am Dr. James E. Perkins of the National Tuberculosis Association. I received my doctor of medicine degree from the University of Minnesota, and my master of public health and doctor of public health degrees from the Johns Hopkins University.

I have served as an epidemiologist in the Minnesota and New York State Departments of Health, as a district State health officer in upstate New York, as director of the Division of Communicable Diseases of the New York State Health Department from 1938 to 1946, deputy commissioner of the New York State Health Department in 1946 and 1947, and have been managing director of the National Tuberculosis Association since 1948.

I have a very brief statement here.

I have prepared a copy and have given it to the stenotypist. I shall read only certain portions of it.

I start out this way because I am sure you must be curious why someone from the National Tuberculosis Association is testifying with regard to this bill.

I will only state that, historically, the National Tuberculosis Association and its 2,500 affiliated associations throughout the country have been pioneers in the development of the child health programs and school health programs. So we have been interested for many years in this field of school health and child health.

Furthermore, for over a decade we have been very much concerned with regard to other respiratory diseases and not only with the eradication of tuberculosis. But we have not publicized this to a great extent because we feel there is already too much apathy with regard to the eradication of tuberculosis itself.

Today there are diseases of childhood for which human medicine has discovered no answer and in front of which we stand hopeless while the disease pursues its inexorable course.

Happily, the communicable diseases with which this legislation is primarily concerned have had their terror removed by medical progress if the necessary weapons are utilized, and new weapons will shortly be available, such as an effective vaccine against measles.

It is difficult for us to realize that diphtheria was considered a very serious public health problem only a few decades ago. And, as Dr. Teague has indicated, even today we have unnecessary epidemics of diphtheria.

When I started my public health career in the early thirties as an epidemiologist, first in Minnesota and then in New York State, it was one of my major concerns. Cases of and deaths from diphtheria have been dramatically reduced through immunization, but there should be none at all.

Mortality from whooping cough has been greater than that from diphtheria in recent years. In his classic book on preventive medicine, Rosenau stated that the indifferent attitude with which the public viewed whooping cough contrasted sharply with the fact that it is one of the most distressing and fatal of the acute infections of childhood.

Again, one of my major concerns in the late thirties and early forties was whooping cough, and a study of the value of vaccination against this disease in which I participated established the value of this preventive procedure.

At that time there was some doubt as to the effectiveness of whooping cough vaccine, and we conducted a carefully controlled study in Binghamton, N.Y. As far as I know, its value has never been challenged since, and the subsequent decline of whooping cough has been adequate testimony to the effectiveness of the currently available whooping cough vaccine.

So far as tetanus is concerned, only 445 cases were reported in the United States during 1960, but almost two-thirds of these persons died. And none of us need be reminded of the terror which strikes the average community when a single case of poliomyelitis occurs. Why do any of these diseases still occur?

In the final analysis, the responsibility for the adult's health must largely lie with the individual but this cannot be the case with the young child, whose protection depends on his family, the family physician, and his community's health department. Although this country in general has had a commendable record of response to public health measures, such as vaccination, there are parents who are not sufficiently convinced or concerned to seek actively such protection for their children.

Unless all possible efforts are made by public health authorities to offer services in as convenient a manner as possible and to organize community resources so as to encourage maximum acceptance, some children will remain at risk to these unnecessary serious and often fatal diseases.

The provision of Federal funds specifically for vaccination programs should enable health departments, increasingly pressed by the expensive burdens of chronic disease programs, to place increased emphasis on immunization services, one of their basic, elementary functions, without jeopardizing support of their other programs. It is known that the degree of coverage by recommended immunization varies with different localities.

In 1959, when one-third of the Nation's children under 6 had not yet been immunized with Salk vaccine, over a year after mass immunization had been urged, the NTA exhorted its associations to work with health departments to encourage better public participation in such campaigns. It has and is conducting similar activities with regard to influenza immunization.

Today, we know that coverage of the child population by polio vaccine has improved—80 percent of all the children under the age of 4 are believed to have received some polio vaccine and 66 percent have received the complete series of inoculations recommended for total protection. In a democratic society, this is probably a good record—but it is not good enough.

We are dealing here with communicable and preventable disease. Its prevention in children lies in the hands of others. Our discussion of these diseases has stressed their lethal qualities but we should not forget that such diseases are particularly distressing because of the frequency with which they cause permanent damage even when not fatal, such as paraylsis in poliomyelitis and chronic lung disease in the whooping cough victim.

Needless to say, all such illnesses are frightening and traumatic episodes for the child and his family, regardless of the outcome.

It is our belief that there should be no excuse for less then essentially complete immunization of our children with these tried and successful vaccines. To accomplish this, however, requires very careful planning and organization, and the cooperation and coordination of many groups in the community.

The program of the National Tuberculsosis Association and its medical section, the American Thoracic Society, is devoted to the control and, where possible, the eradication of respiratory disease which affects or is transmitted through the respiratory system. Today, eradication is possible in those diseases for which we have effective vaccines.

Because the proposed legislation, S. 2910 and H.R. 10541, should offer a considerable impetus to the goal of complete immunization of our child population from these dangerous diseases, it receives the unqualified support of our organization and it is our hope that it will receive favorable consideration by this committee.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Doctor.

Mr. Younger, do you have any questions?

Mr. YOUNGER. Doctor, your organization has done a very fine work in eradicating tuberculosis.

Has that been done under the aid or assistance of the Federal Government?

We have health institutes here, working all the time on research in tuberculosis.

What else has the Federal Government done?

Dr. PERKINS. A great deal, sir. In fact, I think we were partially responsible for the establishment of the tuberculosis program unit in the U.S. Public Health Service some years ago.

And we make Federal grants available now from the Public Health Service. I wish they were higher.

We have at the present time $3.5 million available in formula grants, plus $500,000 for special project grants for areas of special need in local communities throughout the country.

In my opinion, the provision of these grants was largely responsible for stimulating a much greater effort in tuberculosis control. Even though some of these amounts to individual States are pretty small—you divide $3.5 million by 50 and you can see what you get—nevertheless, these have been extremely helpful in stimulating control programs in these areas, plus the good advice which the State health departments and local health departments receive through the experts in the U.S. Public Health Service in this field.

Furthermore, some of the finest research work in tuberculosis is being conducted by the tuberculosis program of the U.S. Public Health Service. I am not talking about the National Institutes of Health. They are involved, too.

But there is a field research unit in the tuberculosis program which has done some splendid work and which at the present time is investigating the possible prophylactic use of our best drug, isoniazid, in further reducing the incidence of tuberculosis, particularly among household contacts and others exposed to tuberculosis.

Mr. YOUNGER. That field group, is that under the Surgeon General?

Dr. PERKINS. Yes, sir.

Mr. YOUNGER. That is all.

The CHAIRMAN. Doctor, thank you very much, and your entire statement will be included in the record.

Dr. PERKINS. Thank you, sir.

(The prepared statement of Dr. Perkins follows:)

STATEMENT OF THE NATIONAL TUBERCULOSIS ASSOCIATION TO THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE ON H.R. 10541

I am Dr. James E. Perkins of the National Tuberculosis Association. I received my doctor of medicine degree from the University of Minnesota, and my master of public health and doctor of public health degrees from the Johns Hopkins University. I have served as an epidemiologist in the Minnesota and New York State Departments of Health, as a district State health officer in upstate New York, as director of the division of communicable diseases in the New York State Department of Health from 1938 to 1946, deputy commissioner of the New York State Health Department in 1946 and 1947, and have been managing director of the National Tuberculosis Association since 1948.

The National Tuberculosis Association has always had a stake in child health. In the early days of the tuberculosis movement, preventoriums were maintained by tuberculosis associations to separate children from tuberculous families. Today, when the incidence of the disease has shifted to the older ages, vigilance is still maintained to find children who are tuberculin reactors, in order to prevent through the use of the newer antituberculosis drugs the development of clinical disease, especially meningitis, which was invariably a fatal disease until the discovery of streptomycin. Vaccination with BCG is recommended in certain highly exposed groups although other methods of prevention are more advantageous in most situations.

The interests of the voluntary tuberculosis movement in child health were never parochial. As early as 1917, associations were experimenting with methods of inculcating health habits in children by means of a school program called the Modern Health Crusade. In 1924, the NTA took the lead in supporting the report of the joint committee of the National Education Association and the American Medical Association, a report which was to mark the beginning of a new era in child health education by emphasizing the need to motivate the child as well as improve his environment.

Examinations of preschool children for all disabilities and well-rounded medical programs within schools have been supported by tuberculosis associations throughout the years and many of these pioneer demonstrations led to establishment of full-time programs in schools. NTA staff continue to conduct workshops for the training of teachers in matters of health education and devote much time to other phases of school health, which in many areas are still given too little attention. Our justification for efforts beyond the consideration of tuberculosis alone is the obvious fact that the child's health cannot be compartmentalized and that the environment of the child and his early attitudes will often determine the future pattern of his health. Furthermore, for years the National Tuberculosis Association and its 2,500 affiliated local associations have been concerned with the control of all respiratory diseases and not only the eradication of tuberculosis.

Today there are diseases of childhood for which human medicine has discovered no answer and in front of which we stand helpless while the disease pursues its inexorable course. Happily, the communicable diseases with which this legislation is primarily concerned have had their terror removed by medical progress if the necessary weapons are utilized, and new weapons will shortly be available, such as an effective vaccine against measles. It is difficult for us to realize that diphtheria was considered a very serious public health problem only a few decades ago. When I started my public health career in the early thirties as an epidemiologist, first in Minnesota and then in New York State, it was one of my major concerns. Cases of and deaths from diphtheria have been dramatically reduced through immunization, but there should be none at all.

Mortality from whooping cough has been greater than that from diphtheria in recent years. In his classic book on preventive medicine, Rosenau stated that the indifferent attitude with which the public viewed whooping cough contrasted sharply with the fact that it is one of the most distressing and fatal of the acute infections of childhood. Again, one of my major concerns in the late thirties and early forties was whooping cough, and a study of the value of vaccination against this disease in which I participated established the value of this preventive procedure. So far as tetanus is concerned, only 445 cases were reported in the United States during 1960 but almost two-thirds of these persons died. And none of us need be reminded of the terror which strikes the average community when a single case of poliomyelitis occurs. Why do any of these diseases still occur?

In the final analysis, the responsibility for the adult's health must largely lie with the individual but this cannot be the case with the young child, whose protection depends on his family, the family physician, and his community's health department. Although this country in general has had a commendable record of response to public health measures such as vaccination, there are parents who are not sufficiently convinced or concerned to seek actively such protection for their children. Unless all possible efforts are made by public health authorities to offer services in as convenient a manner as possible and to organize community resources so as to encourage maximum acceptance, some children will remain at risk to these unnecessary serious and often fatal diseases.

The provision of Federal funds specifically for vaccination programs should enable health departments, increasingly pressed by the expensive burdens of chronic disease programs, to place increased emphasis on immunization services, one of their basic, elementary functions, without jeopardizing support of their other programs. It is known that the degree of coverage by recommended immunization varies with different localities. In 1959, when one-third of the Nation's children under 6 had not yet been immunized with Salk vaccine, over a year after mass immunization had been urged, the NTA exhorted its associations to work with health departments to encourage better public participation in such campaigns. It has and is conducting similar activities with regard to influenza immunization. Today, we know that coverage of the child population by polio vaccine has improved—80 percent of all the children under the age of four are believed to have received some polio vaccine and 66 percent have received the complete series of inoculations recommended for total protection. In a democratic society, this is probably a good record—but it is not good enough.

We are dealing here with communicable and preventable disease. Its prevention in children lies in the hands of others. Our discussion of these diseases has stressed their lethal qualities but we should not forget that such diseases

are particularly distressing because of the frequency with which they cause permanent damage even when not fatal, such as paralysis in poliomyelitis and chronic lung disease in the whooping-cough victim. Needless to say, all such illnesses are frightening and traumatic episodes for the child and his family, regardless of the outcome. It is our belief that there should be no excuse for less than essentially complete immunization of our children with these tried and successful vaccines. To accomplish this, however, requires very careful planning and organization, and the cooperation and coordination of many groups in the community.

The program of the National Tuberculosis Association and its medical section, the American Thoracic Society, is devoted to the control and, where possible, the eradication of respiratory disease which affects or is transmitted through the respiratory system. Today, eradication is possible in those diseases for which we have effective vaccines. Because the proposed legislation, S. 2910 and H.R. 10541, should offer a considerable impetus to the goal of complete immunization of our child population from these dangerous diseases. it receives the unqualified support of our organization and it is our hope that it will receive favorable consideration by this committee.

The CHAIRMAN. Dr. A. L. Gray. Is Dr. Gray not here?

Dr. J. Buroughs Stokes.

STATEMENT OF DR. J. BUROUGHS STOKES, MANAGER, CHRISTIAN SCIENCE COMMITTEE ON PUBLICATION, WASHINGTON, D.C., OFFICE, OF THE FIRST CHURCH OF CHRIST, SCIENTIST, BOSTON, MASS.

Dr. STOKES. Mr. Chairman——

The CHAIRMAN. Would you identify yourself for the record, Dr. Stokes?

Dr. STOKES. Yes, sir. My name is J. Buroughs Stokes. I am manager of the Washington, D.C., office, Christian Science Committee on Publication of the First Church of Christ, Scientist, in Boston, Mass. The Christian Science board of directors, the administrative head of the Christian Science denomination, has authorized my appearance before you.

The Vaccination Assistance Act of 1962 (H.R. 10541), we understand, is to assist States and communities by Federal grant to carry out an intensive vaccination program to protect their populations against certain diseases.

We do not disagree with the proposal of the bill as it applies to those who rely upon medical methods for the prevention and cure of disease. But, as you no doubt know, Christian Scientists rely solely upon prayer or spiritual means for the prevention and cure of disease. The Christian Science method of healing has for many years been recognized by the laws of the United States and those of every State in the Union. To a Christian Scientist the prevention and healing of disease is an integral part of his worship. Further, the prophylactic and therapeutic method of Christian Science depends on spiritual means alone and cannot be successfully combined with medical methods.

It seems to us that unintentionally the sponsors of H.R. 10541 have proposed the establishment of a program which, if instituted, would interfere with our right to depend solely on our religious practice for the prevention of disease. This by virtue of the sweeping and all-inclusive provisions of the bill which, in effect, propose the mass inoculation of the entire population regardless of religious convictions.

For example, throughout the bill reference is made to "an intensive community vaccination program" and specifically, in section 317(b), page 3, line 7, it states:

> * * * the immunization over the period of the program of all or practically all susceptible persons in the community.

Officials of the Department of Health, Education, and Welfare have assured me that it is not the intent or desire of the administration to foster a compulsory program. Nevertheless, by not stating this unequivocally in the bill, it is reasonable to assume that it may be so interpreted by health agencies, voluntary organizations, the local press, and publicity agents at the community and State level. Evidence that this will be the case is shown by the following quotation from the Washington (D.C.) Post of January 19, from an article commenting on the administration's medical program. It reads:

> The Kennedy proposal would require that every part of the Nation show a 100-percent protective factor, or as near that goal as anyone could reasonably expect.

While we can appreciate the purpose of this proposed legislation to prevent on a national scale the spread of communicable diseases, we are confident that the Congress would not wish to do so at the cost of violating existing religious liberties. In the great majority of States where immunization laws have been enacted, exemptions have been provided for those who object to vaccination on religious grounds. But undoubtedly the enactment of H.R. 10541 in its present form would operate to encourage States and communities to require 100-percent participation in the vaccination program, which certainly would be a blow to religious liberty in this country.

We know that it is not the intent of the administration, the members of your committee, or the Congress to make this a compulsory program or to interfere with or restrict the religious freedom of the individual. We hope, therefore, that you will agree to a specific provision being inserted in the bill to prevent such an invasion of rights and liberties.

The following amendment is proposed for this purpose:

Page 3, line 14, following the word "population," insert new sentence reading as follows:

> Nothing in this section shall be construed to require a State or community to have a compulsory intensive vaccination program, or to prevent the exemption of any person, and the child, infant, or ward of any person who objects to immunization on religious grounds.

Mr. Chairman, possibly it would be of interest to your committee to know that I have discussed in detail this amendment with Assistant Secretary of Health, Education, and Welfare, Mr. Wilbur Cohen. The Department has since assured me that it is not in disagreement with our amendment.

The opportunity to make this presentation before your committee is sincerely appreciated, and we ask your sympathetic consideration of this statement and the proposed amendment.

The CHAIRMAN. Thank you, Dr. Stokes.

Mr. Mack?

Mr. MACK. Dr. Stokes, the States which have passed laws normally give you this exception, do they not?

Dr. STOKES. That is correct.

Mr. MACK. I believe that the previous witness testified that the Federal Government did not have the authority to make this compulsory.

Do you agree with that statement?

Dr. STOKES. I have heard from the officials in the Department of Health, Education, and Welfare that they do not desire that this be made compulsory but, as you heard from the former witness, the effect of any enactment by the Federal Government stimulates interest at the grassroot level and may be misinterpreted so that the people, becoming overly zealous, would try to make the program compulsory and have everyone immunized and thus wash out the religious exemptions which have been given to us or to anyone who objects on religious grounds.

For that reason we ask that our amendment be included so that there will be no doubt that they know the intent of the administration and the pleasure of Congress in this matter.

Mr. MACK. Dr. Teague's statement included this provision, I thought, with regard to legislation to make this compulsory, and it was very clear in his statement that it was not to be compulsory.

Dr. STOKES. That is correct, and I so understand it to be that way, but we would like to have it in the bill, if possible, so there will be no misinterpretation.

Mr. MACK. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Schenck?

Mr. SCHENCK. Thank you, Mr. Chairman.

Dr. Stokes, I want to commend you for your very clear and fine presentation.

While I am not a member of the Christian Scientist Church, I have great respect and honor for their beliefs and their positions.

May I say that, perhaps, and I honestly regret this is so because I am sure such trips are helpful I am one of the few members of Congress who has not traveled outside of the United States or made application for a passport or permit or visa or anything of that nature, but I understand that, in order to travel outside of the United States and then return to the United States, you must have certain shots of one kind or another in order to reenter the United States after being in some certain areas of the world where certain diseases are likely to be contracted.

What does the Christian Science Church do in instances like that?

Dr. STOKES. That is very good question, Mr. Schenck.

In this matter the Public Health Service has been most cooperative. As you know, there is a provision in the law that any traveler, going abroad, can return to the United States and come in without submitting to smallpox vaccinations in the event he comes from an area where there has been no smallpox reported for 2 weeks.

In the event that there has been a smallpox epidemic in a particular country from which he is returning he may choose to come in under surveillance, which is not, in any way, objectionable except that the public officials at the quarantine station will state that you must be isolated if you come from a smallpox area, and report to the Public Health officials within a certain number of days in the event there is an outbreak on the body.

Now, for the Christian Scientist, when we have returned from the Continent or any part of the world, upon presentation of proof that we are Christian Scientists, and rely solely upon prayer and spiritual means alone for healing, the public officials have allowed us to come in without submitting to immunization, provided we indicate that we will be agreeable to report any physical outbreak after arrival.

Now, this applies not only to Christian Scientists, but to Presbyterians, Lutherans, Catholics, Jewish people, and so forth, as well. In fact, anyone can come into the country under this regulation because, as you gentlemen do know, there are many people who cannot submit to vaccination because of chemicalization and other reasons. We are protected in this manner, Mr. Schenck.

Mr. SCHENCK. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Moss?

Mr. Younger?

Mr. YOUNGER. No questions. But I want you to know, Dr. Stokes, I thoroughly agree with your program. I am not one of those who thinks the Federal Government is so all powerful and all knowing that we can prescribe for everybody.

Dr. STOKES. Thank you, Mr. Younger.

The CHAIRMAN. Mr. Dingell?

Mr. DINGELL. Thank you, Mr. Chairman.

I was wondering—you indicated you would like to have an amendment to create an appropriate legislative history, as a member of this committee, and one who has read this bill rather carefully, I do not construe it myself to mean that States would be compelled to—in the course of their very broad programs of inoculation—inoculate persons who did not agree with that as a matter of religious doctrine.

I was wondering—are there States which do, in compulsory programs, compel all persons, Christian Scientists, and others, who do not believe in vaccination as a matter of religious principle to be vaccinated right along with the rest of the population?

Mr. STOKES. Yes, sir; there are at the present time 11 States and the District of Columbia which have laws requiring children to be vaccinated in order to attend school, and do not grant any exemptions.

Mr. DINGELL. What is done by the Christian Scientists under this situation?

Dr. STOKES. Of course, this situation is quite understandable in many respects—if it has been on the books for a long time, not much can be done about it legislatively. We, of course, object to it. But we as Christian Scientists obey the laws of the land, and, therefore, submit. But we always request, if possible, exemption, because as one of the former witnesses said, the medical profession recognizes that it is not necessary to vaccinate everyone to prevent an epidemic—that if the vaccine is any good at all, from their point of view, the person who is vaccinated certainly is protected against the person who is not vaccinated. And so, therefore, there have been in some instances exemptions allowed. But, on the whole, if the law says that you must be vaccinated, then a Christian Scientist will obey that law.

Mr. DINGELL. Let me ask you this. Are you familiar with the practice of including in reports an interpretation of the statute?

Dr. STOKES. I don't quite understand the question, sir.

Mr. DINGELL. Are you familiar with the practice of including in the committee report, a document put out under the committee's title and heading and authority, interpreting the bills reported out by the committee, an interpretation of legislation? Would you be satisfied if we were to put substantially similar language into the report stating that it is not the intent of the committee here to——

Dr. STOKES. Mr. Dingell, that is very helpful and kind of you to say that. It would be helpful. But inasmuch as the committee report does not circulate through the entire country in the same way the law would, it would be therefore liable to misinterpretation, by the people in the local community areas, which we wish to prevent. Therefore, the protection would be greater if it was written into the law, since it would not harm the law, and since the administration has agreed that this will not in any way hurt the legislation. It would only be a safeguard to stand for religious liberties of the American people.

Mr. DINGELL. Thank you very much. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much. You do think that if the amendment were to be adopted, that there would be no feeling at all among your people.

Dr. STOKES. I agree, sir, that would be correct.

The CHAIRMAN. Thank you very much.

Dr. STOKES. Thank you, Mr. Harris, thank you, gentlemen.

The CHAIRMAN. I understand Dr. Gray has arrived. Dr. Gray, we would be glad to have your testimony. I believe you are from Jackson, Miss., representing the State public health division.

Dr. GRAY. That is right.

The CHAIRMAN. I am glad at this time to recognize the ranking Democratic member on this committee, your own Congressman, who is well known, beloved, and very able and highly respected here. He might want to have something to say to welcome you to this committee.

Mr. WILLIAMS. Mr. Chairman, thank you for recognizing me. I have known Dr. Gray for many, many years. As a matter of fact, Dr. Gray once rescued me on a lake when my motor had konked out on me, and he happened to come by, and towed me into the bank, it was just about dark. I don't know what might have happened to me if I had been left out there through the night.

Permit me to say that Dr. Gray has a very distinguished record of public service in the field of public health. I can assure you that there is no more devoted person in the country performing the work to which he has dedicated himself than Dr. Gray.

We are happy to have you with us, Doctor.

STATEMENT OF DR. A. L. GRAY, STATE HEALTH OFFICER, STATE OF MISSISSIPPI

Dr. GRAY. Thank you very much—Mr. Chairman, members of the committee, Congressman Williams.

I would like to say my business is saving lives. That is why I dragged him out of the lake over there.

Mr. Chairman, and members of the committee, I am Dr. A. L. Gray, State health officer of the State of Mississippi. I am here representing

the Association of State & Territorial Health Officers, in presenting testimony for this association, in regard to H.R. 10541. We appreciate the privilege of being heard.

This is the prepared statement.

Testimony of State and territorial health officers supporting the principles and objectives of H.R. 10541, Vaccination Assistance Act of 1962, and recommending revisions thereof.

The Association of State & Territorial Health Officers has for many years supported widespread immunization programs, and strongly supports the intent of the act as stated in the first paragraph of the bill, namely:

> To assist States and communities to carry out intensive vaccination programs, designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs.

We would like to suggest certain revisions which we believe would make the bill more effective in achieving the stated goals. The suggested revision are as follows:

HOUSE BILL, H.R. 10541, GRANTS FOR INTENSIVE VACCINATION PROGRAMS

1. Page 2, section 317(a), lines 7 and 8. Delete the words "and political subdivisions and instrumentalities of the States."

Page 4, section 317(d), line 2, delete the words "or other public agency."

Page 4, section 317(e), lines 14 and 15, delete the words "or to a political subdivision of a State."

This recommendation is made in recognition of the well-established and accepted relationships between the Public Health Service and the States. The State health departments, together with local communities, are in a better position to recognize and evaluate local needs for immunization, and to develop balanced programs within the State.

2. Page 2, section 317(a), line 13, insert after the word "years" and before the word "and," the phrase "and such other groups having special needs as may be approved by the Surgeon General." This recommendation is being made to make possible the inclusion of especially susceptible groups, such as 5- and 6-year-old preschool children, pregnant women, and certain hospital and institutional residents and staffs who may be particularly exposed and susceptible to communicable diseases.

3. Page 2, section 317(a), lines 17 and 18. After the word "surveillance," delete the words "occasioned by such programs," and substitute the words "and social science studies associated with such programs or necessary in such programs." This recommendation is being made because it is recognized that social science studies are needed in many areas to determine how best to reach certain groups of the population who have failed to take advantage of the immunization programs previously available to them.

4. Pages 2 and 3, section 317(a), lines 25 and 1. After the word "activity," delete the words "over a limited period of time." Page 3, section 317(b), lines 4 and 5, after the words "means a program," delete the words "of limited duration."

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Page 3, section 317(b), lines 14, 15, 16, and 17, delete the sentence

no grant may be made under this section with respect to an intensive community vaccination program against poliomyelitis, diphtheria, whooping cough, and tetanus, which begins after June 30, 1965.

These recommendations are being made, as it is the belief of our association that an intensified immunization program must be maintained over an extended period of time if it is to be completely successful. "Crash" or short-term programs do have value, but certain community resources may be lost in developing such programs, new population groups will need protection through immunization and booster type immunizations must me offered. The latter justify continued emphasis on immunization.

Page 3, section 317, after line 17, we would propose to add a new section, (c), to read as follows:

Such grants shall be made to States on a formula basis taking into consideration such factors as extent of the problem, population of children under 5 years of age and per capita income, with the provision that the States must submit a plan by the end of the first quarter of the Federal fiscal year for use of the funds, or any portion thereof, to carry out the intent of this act. If a State fails to qualify within this quarter, its allocation shall be made available to the remaining States on a similar formula basis.

That would be a new section.

We are recommending this amendment because we believe that every State has some need for extending the protection of immunization to its entire population, and every State should have the opportunity of qualifying for its fair share of these funds by writing an acceptable plan for use of the moneys.

Again, we would emphasize our support of the intent of this bill. We believe that if revised as we have suggested, it will make a real contribution to the Nation's health, particularly small children, and we appreciate the opportunity of presenting this testimony to you.

Thank you, gentlemen.

The CHAIRMAN. Dr. Gray, thank you for your testimony and your suggestions for language changes to carry out what your organization feels would be desirable to strengthen the program.

Mr. Williams, any questions?

Mr. WILLIAMS. I have no question, Mr. Chairman. I would like to compliment my good friend Dr. Gray on his splendid statement.

I feel indeed that the suggested changes in the legislation that he has offered are worthy of consideration by the committee.

The CHAIRMAN. Mr. Schenck.

Mr. SCHENCK. Thank you, Mr. Chairman.

I also wish to join my colleague, Mr. Williams, here, in commending Dr. Gray on his statement for his association.

Now, as I understand the general purpose of your suggested changes are based upon making this permanent legislation, based upon making it administered only through State health departments, and not through local communities.

Dr. GRAY. Not direct, that is right.

Mr. SCHENCK. Basically, that is the purpose of your suggested changes.

Dr. GRAY. Those are the chief difficulties we see in the proposed legislation at the present time. If I might, I would like to comment a little.

We feel that the State health departments in the various States, in working with local health departments, understand better the total and relative need from one area of the State to the other, and the total State, than might be developed from some central point in Washington. If it goes direct to some local community from the allocating agency, we feel there would be inequities throughout the State, and not a State level and properly balanced program throughout the State.

Mr. SCHENCK. Thank you.

Dr. GRAY. And so far as the permanence of the bill, we would not propose anything of a permanent nature at this time. But we realize that there are scientific facts that we cannot overcome within a 3-year period, and there are difficulties that come out of any kind of a crash program—people are just as likely to forget, or even more so, than they are to be stirred up at a given time over a problem of this type. So it takes continuity over a long period of time to do this kind of program.

Mr. SCHENCK. Thank you, Dr. Gray.

The CHAIRMAN. Mr. Dingell.

Mr. DINGELL. Thank you, Mr. Chairman.

I wonder—you favor the centralization of activities of this kind in the local State governments, do you not?

Dr. GRAY. Yes.

Mr. DINGELL. The theory, sir, would be that the State is better able to determine the needs of its people—am I correct—than the Federal Government operating from Washington—that would be your theory?

Dr. GRAY. Yes, sir.

Mr. DINGELL. Now, how are we to say, then, that the city or the county cannot better determine the needs of its people than the State?

Dr. GRAY. Well, I would say that the State health department and its executive officers throughout this country are overall responsible generally for the total public health program in the State.

Mr. DINGELL. Isn't that true of the Federal Government in Washington?

Dr. GRAY. Well, it probably is, yes.

Mr. DINGELL. In other words, they are responsible for the health of the whole people, and the excuse of the Federal Government operating in this field of endeavor at all is the fact that the Federal Government has a responsibility to all the people, and not just to the State agency; am I correct?

Dr. GRAY. Well, a given State agency represents all the people in that State.

Mr. DINGELL. And so does the local community health agency—am I correct?—represent all the people in the local community. For example, let's take my city of Detroit. They are, I assume, at least as keenly aware of the needs of the people of the city of Detroit as is the State agency; am I correct?

Dr. GRAY. They probably are.

Mr. DINGELL. And as a matter of fact, they are a good deal closer to the people, and probably more keenly aware of the needs of the people and the wishes of the people—am I correct—in regard to their local health problems.

Dr. GRAY. I presume so.

Mr. DINGELL. So why do we deny the cities and the local communities an opportunity to participate in this program?

Dr. GRAY. This wouldn't be denying them.

Mr. DINGELL. Let's take a very concrete example. You suggest that in the event the State shall refuse to come in under the program, that therefore the State should be excluded from the program, and if the State is excluded from the program, under your suggested amendment, every community, county, village, town in the State will be denied participation in the program. Am I correct?

Dr. GRAY. Well, in preparing this statement, the State health officers didn't anticipate that any State would refuse to come in.

Mr. DINGELL. Let's assume that in its wisdom the State legislature refuses to appropriate money for State participation in a program of this sort. But let's assume that a city like Detroit or a county like Wayne, in Michigan, were to desire to come in, and were to be willing to set up the money for a program of this kind. Isn't it a fact that your amendments, as suggested, would deny the city of Detroit and county of Wayne an opportunity to participate in this, simply because the legislature in its wisdom had refused to appropriate the money, or refused to authorize State participation in a program of this sort? Am I correct?

Dr. GRAY. Well, I presume that the State health officers, in their conference, based their statement only on the proposition that all States would come in.

Mr. DINGELL. But if they did not, if in the wisdom of the legislature they chose not to participate, and a State subdivision, like a city or county, did choose to, where would that city and county be, and where would the people who reside therein be? They would be excluded from the benefits of this program—which I assume are substantial, or you would not be here present endorsing the program.

Dr. GRAY. That is right. I would like to make this comment. As far as the relationships between our State health department and the Public Health Service, and the Children's Bureau, through which these moneys come, they have been most satisfactory all the way through the years. I would like to make a personal comment now. This is not for the association.

So far as this bill is at the present time, I support it. But we feel—the State health officers feel that these suggestions would help in the total administration of the program.

Mr. DINGELL. I want you to understand—I am a great champion of the State health officers. I think they are doing a splendid job. And I think you are doing an excellent job in your capacity both as a State health officer and as a witness today. But I do want to protect our people from the possibility of the very untoward circumstance which conceivably could happen in the case of my State or some of the other States if your amendments were adopted.

Dr. GRAY. Well, that possibility was not considered by the State health officers' association.

Mr. DINGELL. Our State legislature has on many occasions refused to participate in programs which would have conferred very substantial benefits for the people in our State. In one instance they refused to come in under the temporary ADC program, which would have allowed the children of the unemployed in the State to be treated

as ADC recipients. I can foresee a similar happening here. And that is the reason I am concerned about your amendments. And I want to explore this with you.

Dr. GRAY. Might I make this comment—another personal one now.

It seems to me that, as I understand it, this money that would be made available to begin with, in this 3-year period, would be nonmatchable. It wouldn't necessarily have to be matched.

Now in view of our feeling as State health officers that you cannot eliminate and control disease by a sudden gush of activity and then stop——

Mr. DINGELL. I am sure this is correct.

Dr. GRAY. In view of that, I feel that this would be a better bill if the 3-year program goes on, like you proposed, but that it have incorporated in the legislation a provision that after that 3-year period, then the States and communities begin to put up some money.

Mr. DINGELL. I see. I think that would be wholesome, that they should do that.

Dr. GRAY. I think they should, too.

Mr. DINGELL. Doctor, you have been most helpful. I hope you won't take any of my comments this morning as being unkind or in any way hostile, because they were not so construed.

Dr. GRAY. I understand the necessity of your line of query. I know your State health officer very well, Dr. Eustice, and he is an outstanding public health statesman.

Mr. DINGELL. Doctor, thank you very much.

The CHAIRMAN. Mr. Younger.

Mr. YOUNGER. Doctor, does your organization agree to the amendment proposed by Dr. Stokes?

Dr. GRAY. Dr. Stokes?

Mr. YOUNGER. Yes.

Dr. GRAY. I didn't get here in time to hear his proposal.

Mr. YOUNGER. That would give an exemption for those who object to vaccination on the grounds of religious belief.

Dr. GRAY. Well, our association did not even discuss that item, because we did not anticipate that the Federal compulsion would be involved. Certainly I would feel like that this kind of thing would necessarily need to be left up to the States and on down to the communities.

Now in our State we have a State law which authorizes school boards to require immunization. In that law, the school boards are authorized to exempt certain individuals. And one of them is those on the basis of religious faith, when that faith is certified to by the head of the church, whatever that church is.

Mr. YOUNGER. We have it under the draft laws also, that one is exempt from the draft, military service, on the grounds of religious belief.

I am somewhat concerned about your proposed amendment which would delegate to the Surgeon General the right to include such other groups which have a special need. Now that seems to open up the door for just unlimited procedure on the part of the Surgeon General. He can take any number, as this program is advanced, for the immunization of children, 5 years and under.

If you are going to make a program and say, all right, the Surgeon General can include any other group that he wants to——

Dr. GRAY. May I state one of the chief reasons why that was put in there. This bill states under 5 years of age. In every State, there are large numbers of retarded children—they are always preschool so far as school activity is concerned. But their age is 10, 15, 20. They need protection. They are more likely to get disease than anybody else, because of their lack of mental competency. That was the chief group that was discussed in this regard.

Mr. YOUNGER. It looks to me as though you could include that group with a more definite amendment, than to just open up the floodgate. Otherwise, in your amendment, you might as well abolish the bill and say that we are going to have immunization of any group that is picked out by the Surgeon General.

Dr. GRAY. If I may, I would like to give my personal opinion, again, and not speaking for the association.

For instance, I doubt seriously the wisdom of wasting a lot of time and money on giving polio vaccine to people over 40 or 50. And yet it is recommended nationwide. There is not enough polio there to justify it. It might lead to that sort of a possibility.

And so far as these special groups are concerned, I personally wouldn't be too concerned about them, because every State and community can get resources to take care of those most unfortunate groups.

Mr. YOUNGER. Then to meet those special groups, you would not personally—not speaking for the organization—actually need this broad authority in the Surgeon General.

Dr. GRAY. Well, so far as our State is concerned, if it is passed like it is, we will use what is given to Mississippi well, in the wording of the law.

Mr. YOUNGER. Thank you very much, Doctor.

The CHAIRMAN. Mr. Moss, I don't believe I gave you an opportunity to ask questions.

Mr. Moss. Doctor, you are speaking now for the State health officers of the 50 States.

Dr. GRAY. Yes, sir.

Mr. Moss. Were the amendments proposed, striking the political subdivisions or instrumentalities, concurred in by all 50 of the health officers?

Dr. GRAY. No, there were not all 50 at the meeting.

Mr. Moss. I am concerned, because of the fact that in some jurisdictions—and I would have to do some careful checking to be certain as to which ones—there is a very high degree of autonomy given to chartered cities and counties. I believe that is the case in California. And I don't know whether they are required, under law, at the present time, in my State, or whether the State could require them to coordinate their programs and submit them through the State government.

I am wondering if we might not encounter problems in some areas by imposing, as a result of an enactment of the Congress, a requirement on the States to change the law.

Dr. GRAY. That might be so. Incidentally, a representative from California was in this group that proposed these changes. And I know Dr. Merrill very well. That kind of an issue wasn't discussed in our deliberations.

Mr. Moss. The principal objective of those amendments is to secure the utmost coordination at the State level.

Dr. GRAY. That is right.

Mr. Moss. Couldn't we, by appropriate language, require coordination where it is possible—but where it is not, then permit the individual community to make its application—if that is consistent with the laws of that State?

Dr. GRAY. I would say—again speaking personally—that if a given State board of health, or State health department, didn't want to follow along, then the door ought to be opened to local communities.

Mr. Moss. Well, I was thinking of an instance where perhaps the State board of health might well desire to——

Dr. GRAY. Refrain?

Mr. Moss. No—to go along, but lacked the authority to handle the necessary coordination.

Dr. GRAY. Well, I realize there is tremendous divergence and variation from one State to another, from the standpoint of the organization of the public health program at the State level and on down to the communities, and other governmental ramifications. And that makes it increasingly difficult to make a law like this really fair all the way around. I understand that.

Mr. Moss. Don't you think that perhaps while constructing the bill in such manner as to seek the coordination in the State, and to try to have programs submitted only through the State, that there should be some escape hatch to take care of those areas where, because of various legal or political patterns, the local community has to go it alone.

Dr. GRAY. I personally believe that. But that is not my prerogative to state that for the State and territorial health officers.

Mr. Moss. I was interested in the last amendment you proposed. I was not able to take down the entire text of the amendment. "Such grants on a formula basis."

Dr. GRAY. That is right.

Mr. Moss. The formula to be devised by the Surgeon General?

Dr. GRAY. Yes.

Mr. Moss. And to take cognizance of special needs of the population and of the ability of the States or communities to underwrite——

Dr. GRAY. That is right.

Mr. Moss (continuing). A program from their own resources.

Dr. GRAY. That is similar to the present method of distributing other Federal health funds.

Mr. Moss. And you feel that under the pattern now existing in these other programs, that a completely equitable formula would be arrived at.

Dr. GRAY. I don't know that any formula was ever completely equitable.

Mr. Moss. Well, within reason.

Dr. GRAY. I believe the formulas we now operate under are just about as fair as can be made. The reason this was suggested was that it was brought out over and over that—just as an example—your State of California might well, under the present situation, get up good projects and make applications and take all the money, before the rest of us got to moving.

Mr. Moss. No, I don't think that would be proper. But I am interested in the ability of the Surgeon General to devise an acceptable formula. If there is already a general agreement that he had succeeded in the other programs in achieving an equitable allocation, then I have no objection.

Dr. GRAY. Well, I believe that the State health officers, in their regular association meetings, have repeatedly discussed these formula grants, and occasionally they find some little defect, they think—I am sure that the association feels that the formula grant basis that has been used in the past is a reasonably good method of distributing the funds.

Mr. Moss. That is all the questions I have, Mr. Chairman. I want to thank you, Doctor.

Mr. WILLIAMS. Mr. Chairman, may I be recognized for a question?

The CHAIRMAN. Mr. Williams.

Mr. WILLIAMS. As I understand it, Doctor—and correct me if I am wrong—generally speaking the purpose of the amendments that you suggested, to delete the words "and political subdivisions or instrumentalities," is to give recognition to the fact, whether it be admitted by most people or not, that the States are the basic units of government, and that the State health officers are better qualified, and in a better position to set up a coordinated program than Washington, which is a thousand miles away.

Dr. GRAY. That is right. And another point—bringing this down locally, Mr. Williams—if, for instance, Gulfport, in Harrison County, under the present law decided—the chamber of commerce decided "well, we are going to put on a big show down here" in this immunization program, and they could put pressures on you fellows to get allocations of money—where that area might be the least in need from the standpoint of all of the factors that determine need. Yet they would get the money—and Hollis Springs, in north Mississippi, and that county, might not be able to get any, where it might have the greatest need. And that is the reason we adhere to the principle of allocating through State health departments.

The CHAIRMAN. Doctor, as I told Dr. Teague earlier today, I do not know what was intended by this language which is included in the bill. We will have an explanation from the Secretary of HEW when he comes and testifies tomorrow, I believe. But I had the feeling that this language was intended to have the funds for this program channeled through the State, and from there to the local communities, which is usually the procedure. In other words, those political subdivisions are instrumentalities of the States. I believe that was what was intended.

Dr. GRAY. Well, presumably, then, State health officers misunderstood the intention, because they were afraid of, first, direct to community allocation, and secondly, they realized that in some States it might be possible for, for instance, a political school program, superintendent of education, for instance, to decide "Well, I am going to put on this immunization program, so I will get the money as a State agency."

The CHAIRMAN. You would have in mind, would you not, that the administration of this program be through the State health offices, and through that office to the county and local offices.

Dr. GRAY. That is right. It would create no problems in Mississippi, because of our organization down there.

The CHAIRMAN. We will explore that further.

Mr. SCHENCK. Mr. Chairman.

The CHAIRMAN. Mr. Schenck.

Mr. SCHENCK. Is the Hill-Burton hospitalization program handled upon that basis?

Dr. GRAY. I think every State has a governing group at State level to channel Federal funds down to the States, and the applications up to the Federal level. That is true in our State. The commission on hospital care, of which I am an ex officio member, is the reason I happen to know something about it.

Mr. SCHENCK. Mr. Chairman I was just trying to illustrate the point, that a great many programs are administered, such as the doctor indicates, such as interstate highway programs, and ABC highways within the States, and the Hill-Burton and so forth—many of them are administered through the State administrative officers. Is that not true?

The CHAIRMAN. That is true.

Mr. WILLIAMS. Mr. Chairman.

The CHAIRMAN. Mr. Williams.

Mr. WILLIAMS. Doctor, I would like to ask one or two questions in connection with the need for Federal assistance for this type of program.

What kind of programs do you now have in effect in Mississippi for vaccination?

Dr. GRAY. In the first place we have a full-time health service in every county, 82 counties in Mississippi, and have had for many years, the last 1 having been organized in 1952.

Now, those health departments, local health departments, are staffed from poorly to good. Some of them have no more than a full-time nurse and a clerk and a part-time sanitarian, and a little supervision from a district health officer. But in general it is good.

Now, one of their basic programs since public health started to move in Mississippi many years ago, under Drs. Leathers and Underwood, one of the basic programs has been immunization with every effective immunizing agent we could get our hands on and pay for, given to any person within a given described age group and so on, without regard to whether he had a Cadillac or went barefooted—we didn't have time to determine those things. Last year, for instance, 1961, our public health program administered well over a million injections of various immunizing agents, including polio, diphtheria, tetanus, and so on. But that is not enough. It is all our personnel could stir up—in other words—and all that we could get to with the cost of the vaccine and everything else.

We feel in our own State that the greatest need, which this bill would help provide, would be people—contact people, to add to the health department. Because these people that don't move for immunization when it is made available generally, and most people do—it takes personal contact with them by somebody—and that is expensive, to get them to come into the immunization center, whether it is a physician's office or health department office.

I think that kind of thing would be very helpful as it might come out of this legislation.

Mr. WILLIAMS. Doctor, did you include a request for additional personnel in your budget that was presented to the State legislature this year?

Dr. GRAY. Yes, I did.

Mr. WILLIAMS. Was it refused?

Dr. GRAY. Well, it looks like the State legislature is doing a little trimming on most all the budgets, and that includes ours—because of the critical financial situation they found themselves in.

Mr. WILLIAMS. Let's not discuss that publicly at the moment.

Dr. GRAY. But we have never had in all of the counties really adequate personnel in the first place. What we have had has been good, but there just was not enough of them. And of course the chief reason is money.

Mr. WILLIAMS. The thing that disturbs me about this type of program—I will be very candid—is the fact that the Federal Government is some $300 billion in debt, and the States, even the State of Mississippi, which is usually battling it out with the State of Arkansas to see which one is the poorest State in the Union each year, is in an infinitely better economic situation than the Federal Government. Of course I realize that it is not quite as simple as saying that the States should go ahead and finance all of this, because the Federal Government has preempted so many of the State's sources of revenue. But that is the thing that disturbs me about this type of program.

Public health, in my opinion, is initially and primarily, if not in fact exclusively, the responsibility of the States. As I say, that is the thing that disturbs me about this type of program. While I understand it is necessary on occasion, at the same time——

Dr. GRAY. May I disagree with you on one point?

Mr. WILLIAMS. Well, you won't be the first person that has disagreed with me.

Dr. GRAY. You say that public health is primarily the responsibility of the State.

Mr. WILLIAMS. Under the Constitution.

Dr. GRAY. All right. Now, here is the reason why the State can't assume all the responsibility for contagion control, because contagion doesn't recognize the line between Arkansas and Mississippi, particularly since everybody is going somewhere all the time now. Smallpox in London and Germany recently disturbed us in Mississippi. We didn't have any, but we kept our eyes open, and we had channels open to be sure that we didn't get it in Mississippi.

So I would say that Mississippi cannot possibly, no matter if we spent double what we are spending on contagion control, including immunization, and Arkansas and Louisiana and Alabama and Tennessee, which border us, didn't do the same thing, we couldn't possibly control the contagion in Mississippi.

Mr. WILLIAMS. Doctor, I will have to yield to you on that point. You have made a very persuasive argument in that respect. I am speaking basically of the philosophy of the Government that most of our people subscribe to, as you well know.

Dr. GRAY. That is right.

Mr. WILLIAMS. I realize that it can't be a completely rigid policy. But it does allow for flexibility.

However, I would go back to the proposition that I think that the primary responsibility, if not perhaps the exclusive responsibility—but the primary responsibility does rest with the local people to meet their local needs in this respect.

Dr. GRAY. I might point out in that regard, in our State——

Mr. WILLIAMS. If that were not true, then I am inclined to think that we should abolish our State health departments and set up simply a Federal health department.

Dr. GRAY. Well, that is what we are trying to keep you from doing.

Now, I would like to point out, though, that the counties in Mississippi have always put up substantial support for public health—up to 2 mills in every county in the State. That is an on-going thing. So the counties are putting in a good bit of money—even the towns. Then the State comes in with a considerable share of money. And then the Federal funds really save our lives. That includes yours.

Mr. WILLIAMS. Thank you, sir.

Mr. DINGELL. If my colleague would yield—Doctor, you are familiar with the work of the Communicable Disease Center and Public Health Service in Atlanta, are you not?

Dr. GRAY. Very well.

Mr. DINGELL. I assume your relationship with the Public Health Service has been very good, has it not?

Dr. GRAY. Absolutely.

Mr. DINGELL. Have you ever found them coming in and dictating to you?

Dr. GRAY. No, sir.

Mr. DINGELL. Is there any center which does or would be capable of doing the work of the Communicable Disease Center, in Atlanta, in terms of watching what goes on in the field of public health, with regard to influenza, diphtheria, typhoid, any one of the dangerous communicable diseases, which do start and move around the country?

Dr. GRAY. It is the most competent governmental unit in the Nation now for an overview of the total national problem as it relates to international problems, and vice versa. It has a staff of very competent consultants to advise with the States, the State health departments. We have worked with them for years, in a field training program, where they assign their new recruits, to get grassroots activity. They have been most helpful to Mississippi, and I am sure all other States.

Mr. DINGELL. One of the main functions of that agency is to watch the movement of these communicable diseases as they travel across the country. For example, in the wintertime they watch very closely different types of flu, as it moves across the country.

Dr. GRAY. That is right.

Mr. DINGELL. They also have the responsibility of watching, for example, polio, as it moves around the country, and it has definite patterns of movement, does it not?

Dr. GRAY. That is right.

Mr. DINGELL. It will originate in one area, and it will move, and you can almost trace the traffic of people as they move across the country carrying these viruses and so forth. Isn't that a fact?

Dr. GRAY. That is true as long as we have competent laboratory definitive measures. Now, there are some of these diseases that are very difficult to pin down on a pattern basis, because laboratory identification is terrifically expensive, and most States—a lot of States don't

have adequate laboratory facilities. But we do get reference laboratory work done by CDC—very helpful. Mississippi doesn't have a virus laboratory, I am sorry to say, because we cannot support it, so far.

Mr. DINGELL. Thank you, Dr. Gray.

The CHAIRMAN. Doctor, thank you very much. We are glad to have your statement.

Frances Adelhardt.

STATEMENT OF MISS FRANCES ADELHARDT, McLEAN, VA.

Miss ADELHARDT. Yes, Mr. Chairman.

The CHAIRMAN. Do you represent yourself, or any group or organization?

Miss ADELHARDT. Technically I just represent myself, although I do speak for the natural hygienists—society of natural hygienists.

The CHAIRMAN. You live in McLean, Va.

Miss ADELHARDT. Yes, sir.

The CHAIRMAN. Would it inconvenience you to come back at a later time, or do you want to go ahead now?

Miss ADELHARDT. Well, I have today yet, sir.

The CHAIRMAN. Well, come around.

Miss ADELHARDT. Thank you.

The CHAIRMAN. You may proceed.

Miss ADELHARDT. Mr. Chairman, and members of the committee, I am Frances Adelhardt of 5739 Carlin Lane, McLean, Va. I am here as a natural hygienist to oppose the bill, H.R. 10541. Because of the short notice of these hearings, we have not had a chance to prepare an official statement. I therefore speak only as a member of, but not in official capacity for the Natural Hygiene Society. I would like to point out, however, that my views and opinions on this subject are shared by the thousands of other natural hygienists. We oppose this Vaccination Assistance Act of 1962 for the following reasons:

1. We natural hygienists believe that health is attained and preserved only through natural means, that vaccines will not prevent disease, and that inoculation with serums and vaccines will itself cause illness.

2. We are opposed to the use of public funds to further a project which is based on the beliefs of only one segment of the population.

In order to clarify how this bill is directly opposed to our principles and practices, I will briefly explain the natural hygienists' convictions on the subject of health.

We believe that health is maintained through natural means—that is, materials and conditions normal to the organism. As a house is repaired with the same materials of which it was built, so the body is healed and kept in a state of health with the same materials that went into its creation—namely, natural food, pure water, fresh air, rest, exercise, sunshine. We believe that the forces of nature are always at work to maintain health and repair damage to the body, and that the only way that man can assist nature's healing process is to remove harmful influences and provide the conditions of health.

In striving for a high type of health by natural means, we eliminate from our lives all harmful and unnatural influences, among which are the vaccines in question. We do not believe that health is dependent

on rare and exotic substances or on knowledge attained by only a few, but that it is man's natural state, attainable by everyone through obedience to a few simple natural laws.

We believe that vaccines, which are made by inducing illness in animals, are poisonous substances, and that when they are injected into the healthy body they cause a reaction which is in itself a mild form of disease. This disease we believe, only drains the body of vital energy as any illness does. We believe that such vital energy, immunity to disease, and body strength can be built up only from the same building materials that create flesh, blood, and bone—namely, the beforementioned wholesome food, pure water, fresh air, etc. We do not believe that something can come from nothing, that strength can come from weakening influences, that power can be increased by expenditure of power; and since the body's vital energy is expended in counteracting vaccines, this vital energy or body resistance is lowered, not increased by the use of these vaccines.

We believe it is contrary to reason to sow poison and expect to reap health. For this reason we believe that to inject foreign substances into the blood stream is to violate the integrity of the body and to create a health hazard which varies with individual makeup. It has been reported that many children have contracted polio as a result of polio shots, that many have developed serious illnesses of either the same or of a different variety as a result of the vaccine that was intended to render them immune, and that some of these children died. I believe it is a crime to jeopardize the life of even one child in a vaccination program that has not been proved effective nor is endorsed by the population unanimously.

In view of these beliefs, we feel that it is an infringement on our liberty to be forced to participate in and contribute to this program of vaccination to which we are diametrically opposed. Let us not forget one of the principles on which this country was founded, that the Government shall protect the rights of the minority. Using our tax money in the furtherance of wholesale vaccination is denying the minority the freedom to direct their lives as they see fit. To pass this bill would perpetrate an injustice on thousands of natural hygienists, to say nothing of certain religious groups and others who may oppose vaccination. To kill this bill would harm no one, nor would it deny anyone the right or opportunity to seek treatment by these methods if he so believes and desires. And to those who feel that the unvaccinated present a problem of contagion, let me close with this thought: If vaccination is indeed effective, then the unvaccinated would be no health threat to the vaccinated.

I thank you, Mr. Chairman.

The CHAIRMAN. I thank you, Miss Adelhardt, for your statement. I would like to remind you that this bill was introduced on March 5 of this year. This is May 15. I think there would have been ample time for your group or organization, to have considered this proposal.

The committee will adjourn until 10 o'clock in the morning, at which time the Secretary of Health, Education, and Welfare will be the first witness.

(Whereupon at 12:15 p.m. the committee adjourned, to reconvene at 10 a.m., Wednesday, May 16, 1962.)

INTENSIVE IMMUNIZATION PROGRAMS

WEDNESDAY, MAY 16, 1962

HOUSE OF REPRESENTATIVES,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D.C.

The committee met, pursuant to recess, at 10:10 a.m., in room 1334, New House Office Building, Hon. Oren Harris (chairman of the committee) presiding.

The CHAIRMAN. The committee will come to order.

This morning, as we continue hearings on H.R. 10541, the mass vaccination bill, we are very glad to welcome back to this committee the distinguished Secretary of Health, Education, and Welfare the Honorable Abraham Ridicoff.

Mr. Secretary, we want to thank you for the courtesies that you have extended to this committee during your tenure of this important office.

We know, of course, full well that the time will come very soon when, by your own choice, you are going back home and will no longer serve in the capacity that you now occupy.

We hope that you will be back before this committee on other occasions before you relinquish your position. This is said to let you know that even though many of us might not be in wholehearted agreement with some of the things which you have proposed in representing the administration, you have been exceedingly helpful to the committee, and we want to thank you for it.

We are glad to have you here this morning on this important legislation.

Although we realize that this is a relatively small program moneywise, from the standpoint of the effect that it may have on the welfare and health of our people it is of tremendous importance.

We know that you are greatly interested in this program. We know that it is one of the administration's proposals that you have urged over a period of time, and we are glad to hear you this morning on this subject.

We are glad to have your testimony.

STATEMENT OF HON. ABRAHAM RIBICOFF, SECRETARY OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY HON. WILBUR COHEN, ASSISTANT SECRETARY FOR LEGISLATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; DR. CLARENCE A. SMITH, CHIEF, COMMUNICABLE DISEASE CENTER, PUBLIC HEALTH SERVICE, ATLANTA, GA.; AND DR. JOHN D. PORTERFIELD, DEPUTY SURGEON GENERAL

Secretary RIBICOFF. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I am pleased to appear before you in support of this legislation aimed at improving the health of the American people.

H.R. 10541, the bill under consideration this morning, was introduced by your chairman to carry out a specific recommendation in President Kennedy's 1962 health message to the Congress. Its immediate purpose is to stimulate a nationwide vaccination program to stamp out four serious diseases—poliomyelitis, diphtheria, whooping cough, and tetanus.

Although most people have the impression that three of these four diseases long ago ceased to be a threat, in 1960—the last year for which we have complete information—the four diseases accounted for more than 600 deaths, for many thousands of individual cases of sickness, and for a large percentage of these sick the threat that they would suffer lifelong effects of these diseases and consequently lose many millions of dollars of income.

From the standpoint of medical science, the status of each of these four diseases represents a scientific victory. Medical research has developed for each a safe and effective vaccine that can prevent the occurrence of the disease in vaccinated persons.

The most recent victory, you will recall, was sparked by the development of the Salk polio vaccine 8 years ago. In the few years since this scientific breakthrough took place, polio has dropped rapidly from its former place high on the list of killing and crippling diseases. In 1952, there were 21,000 new cases of paralytic polio. Last year there were only 829 new cases of paralytic polio reported for the entire United States. This is a gratifying accomplishment, a brilliant victory for medical science.

But the very figures that proclaim a victory also reveal a failure. However small the total figures may appear in contrast with those of a decade ago, each of these cases represents the same period of suffering, the same major expense, and the same fear of lasting crippling effect as any case occurring in earlier years. Indeed, these tragedies must have been especially bitter for the victims and their families to accept, because all—or virtually all—could have been prevented. A highly effective vaccine had been discovered. It was available in adequate supply in all parts of the country. Yet 829 persons—mostly young children—contracted this dread disease.

The reason for this failure that mars the victory is clearly revealed by recent studies of the immunization status of our population. These studies show that in all parts of our country large segments of the population still remain unvaccinated, or have only partial protection, against polio. The largest of these groups is comprised of preschool age children. Of some 21 million children under 5, only 7 million have received the full vaccination protection recommended for polio. Yet children in this age group are especially susceptible to the disease. In other words, the record is poorest in the specific area where it should be best. Each of these unprotected persons represents another potential tragedy. And, in combination, they also represent a community health hazard, for any such group of unvaccinated persons contains the potential of an epidemic outbreak.

If these figures related only to the status of polio immunization, it might be possible to comfort ourselves with assurances that time, plus the availability now of the new oral vaccine, will soon improve our record of protection. But similar studies—consisting of good samplings in every age group and in several sections of the country—

also revealed an almost identical situation for vaccination against three other diseases—diphtheria, pertussis (usually called whooping cough), and tetanus—and the irony of our failure is even stronger in these diseases because effective vaccines have been available for many years. With minor deviations, the very same group who are lacking in polio protection—with preschool children as the standout group—are also unprotected against the other diseases.

Another significant fact revealed by the nationwide study of polio vaccination is that the highest percentage of unprotected persons, in all sections of the country and in every age group, is found in neighborhoods in which low-income families live. In polio, for example, among some age groups the vaccination level in the low-income families is 25 percent lower than in high-income groups despite the many free clinics in recent years.

What these figures reveal is a failure, or a major shortcoming, in the planning and conduct of regular vaccination efforts in most communities. The existing vaccination programs conducted in many communities have been reasonably effective in reaching some groups of the population, but they have two major weaknesses. First, they have been so closely related to school admissions that they have provided poor coverage for preschool children. Second, they have been least effective in reaching families in low-income neighborhoods. This latter difficulty is not due simply to the cost barrier, for problems have been encountered in such neighborhoods even when vaccination is readily available without charge.

Whatever the cause, the essential ingredients of the remedy are clearly indicated. What we need is to revamp and reinforce the patterns of our established community programs with measures that will substantially eliminate our backlog of vaccination deficiencies and, at the same time, do a more effective job in providing new protection to the hard-to-reach groups. Here again, the know-how is already available. The problem is only one of application. In a number of communities in recent years, great success has been achieved through intensive communitywide polio vaccination programs developed for the specific purpose of reaching those groups and individuals who have not been covered by previous programs.

These campaigns have shown the validity of two objectives of this legislation: First, that machinery—people and funds and vaccine—is necessary for the push needed in a successful intensive communitywide effort; and, second, that properly set up and run such vaccination campaigns will result in establishing the atmosphere and organization for regular vaccination programs on a permanent basis after the campaign is over.

By way of illustrating such campaigns, let me briefly describe the program in Columbus, Ga., which was recently conducted, on a demonstration basis, with assistance from the Public Health Service.

The Georgia project was a cooperative effort between the Service and State and county public health officials and with the endorsement of the local medical society. A sample survey, conducted before the campaign, showed that almost half of the children under 5 and just over half of the people between 15 and 40 in low-income neighborhoods had not been adequately vaccinated.

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The local people in Columbus set out to vaccinate as many of their fellow citizens as could be persuaded by all methods of promotional ingenuity. The campaign consisted of 24 days of intense activity—spread over a 7-week period. As a result, over 90 percent of the preschool children in this low-income neighborhood has now had some vaccine and the number of young adults with some vaccine protection has increased from 50 to 80 percent.

Although the Public Health Service initiated this project and had a hand in its conduct, the drive was, in all important aspects, a local undertaking.

If comparable campaigns could be mounted throughout the country, we could complete the conquest of polio in the United States. With comparatively little extra cost and effort, these same community campaigns could also be broadened to include immunization against diphtheria, whooping cough, and tetanus. It is standard public health practice to administer a single combined vaccine, known as DPT—for diphtheria, pertussis (whooping cough), and tetanus—to provide protection against these three diseases. The schedule of administration for DPT vaccine can be readily dovetailed with that for either type of polio vaccine. Since studies show that the same preschool children who lack polio protection are also lacking in DPT vaccination, one intensive community immunization program could readily serve a fourfold purpose.

Finally, one additional public health gain could be achieved by well-planned and coordinated community campaigns of this type. Because the primary aim of the program in all communities would be protection for all children under 5 years of age, the groundwork would be laid for converting regular ongoing programs to a new emphasis on immunization during the first year of life. Such a shift in emphasis offers the best safeguard against serious vaccination deficiencies in future.

The principal purpose of H.R. 10541 is to encourage and assist States and communities to develop and carry out intensive community programs of this nature. Such a nationwide approach to the problem offers several advantages over an uncoordinated series of local actions.

First, the biggest obstacle to be overcome is one of inertia or lack of interest on the part of the public. The most effective approach to such an obstacle is to back up local initiative and action with a simultaneous national program which makes full use of the resources of national organizations—including professional and voluntary groups—and national communications media. In such a program the momentum and cumulative force of combined efforts give extra strength to every local program.

Second, a concentrated and coordinated attack has many advantages from the standpoint of overall program efficiency and economy. The services of expert consultants and specialists can be more readily obtained and more effectively used. Some educational and informational materials and programs can be used by a number of communities, either simultaneously or in a planned sequence. Equipment and supplies can be obtained and deployed more efficiently, as can certain laboratory services and facilities.

Finally, if we are to achieve the goal of virtual elimination of these diseases, a nationwide attack is necessary. In a country with such a

mobile population as ours, it would be folly not to approach disease elimination across the Nation in a relatively short period of time.

The bill would authorize a temporary program of Federal project grants to States or their local subdivisions to meet part of the costs of intensive community vaccination programs against poliomyelitis, diptheria, whooping cough, and tetanus.

Federal grant funds could be used for meeting the costs of the vaccine needed to protect all children under the age of 5 years and for the salaries and related expenses of additional State and local public health personnel needed to promote and organize community programs and to maintain laboratory and field evaluation in connection with the program.

These additional personnel to be paid out of Federal grant funds would be used in a wide variety of ways. They could be specialists trained in community organization whose job would be to mobilize the volunteers necessary to conduct the programs. They could be people with special talents to conduct surveys to determine areas of greatest need or to evaluate the results of the program. Or, for example, they could be virologists trained in the diagnosis of polio who would aid in evaluating the results of the elimination program.

In addition to this immediate grant program against the four specified diseases, the bill also contains a standby authorization for similar grant assistance for community vaccination programs against other infectious diseases which represent major public health problems and which are susceptible of practical elimination through preventive agents which may become available in the future.

Because of the inclusion of this "standby authorization," the bill contains no specific time or money limitations on appropriations authorized by this new section. With respect to the immediate four-disease programs, however, the bill does limit Federal aid to community programs which are begun within the next 3 years. Our best estimate of the costs related to this immediate program indicate—if there is complete nationwide participation—that the total Federal appropriations required would be approximately $13.5 million for the first year and $10.75 million for each of the next 2 years. Actual program costs would depend upon the degree of State and local participation.

There are two features of the statutory definition of an "intensive community vaccination program" that deserve special comment.

First is the requirement that such a program must be aimed at achieving the immunization of "all, or practically all, susceptible persons in a community." The principal purpose of this requirement is to make it clear that the Federal grant funds under this authority are for intensive programs only and cannot be used in connection with routine vaccination programs. It does not mean, however, that the program must undertake to vaccinate every person in the community. It is limited to "susceptible persons"—meaning those who are in the age groups which are most susceptible to disease attack.

Second, the requirement that an intensive community vaccination program must include measures for strengthening and improving ongoing programs is a key feature of the proposal. While Federal aid under this authority will not be available for such ongoing programs in future years, it is essential that the upgrading of these regular

programs be singled out for special emphasis. Otherwise, the beneficial effects of the intensive programs would be only transitory; they would wipe out existing deficiencies in community protection only to have similar deficiencies start to accumulate again because of inadequacies in the ongoing program.

The limitation on the use of Federal grant funds to the purchase of vaccine for children under 5 and to the salaries and related expenses of additional State and local health personnel does not mean that these are the only appropriate items of expenditure in connection with an intensive vaccination program. Rather, it represents an attempt to apply the principle of the matching fund requirement to the special needs and circumstances of intensive community vaccination programs.

The usual matching requirement—which specifies the number of State or local dollars that must be expended for every Federal dollar granted—is poorly suited to the needs of this program. A large and valuable part of the community's contribution will be in the form of voluntary services on the part of professional and lay workers. In some instances part of the money costs may be met from nongovernmental sources. Under these circumstances a statutory dollar matching ratio would lead to many complications and inequities. What is proposed, instead, is that Federal funds may be used to pay for the purchase of vaccine required for the most susceptible group of unvaccinated persons, and also for the additional health agency staff which will serve as the nucleus for planning and direction of the program. The States or communities would then be obliged to meet all the other necessary costs—either from public or private sources. Because of this large local contribution, not only in terms of funds but also of people's time, the Federal moneys would be truly stimulatory.

In a very real sense, the most important feature of this proposal is not to be found in the specific statutory provisions. Rather, it lies in the broad discretion left to State and local agencies in developing programs best suited to their local needs and circumstances. Let me illustrate how this legislation could work in a particular State or locality.

Under the legislation, the State or locality has the responsibility for developing a plan of action and submitting a grant application describing the program contemplated.

The applicant can be either a State health agency, if it wishes to participate in developing and coordinating community programs in the State, or it may be a single community if no statewide program is initiated.

One of the first local determinations to be made will be to define the particular local needs—what groups in what neighborhoods should be singled out for special attention and effort. In some communities only pre-school-age children may warrant such specialized efforts. In other communities some adult groups may require special program attention.

The applicant will also have complete freedom in the choice of vaccines to be used. For example, it will decide for itself what use will be made of the new oral polio vaccine or of the Salk vaccine.

It will also be up to each community, or each State, to determine where the vaccinations will be administered—in regular public health clinics, in temporary neighborhood centers, in mobile units, or in private physicians' offices. Common to all programs, however, will be the need for these facilities to be readily available to the parents of small children, whether they be in the shopping centers, churches, or on street corners.

Vaccine purchased with Federal funds could be made available to private physicians for vaccination in their offices of children under 5 as long as adequate free immunization services for these children are available. In nearly all communities, of course, the objectives of this program will require special emphasis on the availability of vaccination at little or no cost, since a high percentage of the susceptible groups will consist of persons in low-income areas. This would not, however, preclude a community from determining locally whether persons over 5 years of age should be charged for vaccination services provided during an intensive immunization program.

Finally, a great deal of variation is to be expected in the patterns and methods of promotional and educational campaigns employed to assure public awareness regarding the need for vaccinations and where and when they can be obtained. This is the most critical feature of the program, from the standpoint of final results, for the key problem in such a program is how to reach the hard-to-reach groups.

The provision of the bill that authorizes similar temporary grant assistance for intensive campaigns against other diseases for which effective preventive agents may be developed in future years is limited in two important respects.

First, it can be used only in connection with programs directed toward an infectious disease which represents a major public health problem.

The authorization is also limited to a disease which, through an intensive immunization program, is "susceptible of practical elimination as a public health problem." This would rule out programs built around vaccines which are administered annually or provide immunity for only a very limited period of time.

Finally, it should be noted that this provision is an authorization only. It does not in any way commit the Federal Government to participation in the costs of any or all new immunization programs resulting from future medical discoveries.

We believe, however, that some such standby authorization, limited as it is to temporary aid programs for the conquest of diseases which are major public health problems, would provide a useful means for insuring that future victories in medical science can be promptly and fully utilized in protection of the public's health.

In conclusion, Mr. Chairman, let me repeat a few key points for the sake of emphasis. Medical science has given us the means of eradicating polio, diphtheria, whooping cough, and tetanus, but we have yet to complete our conquest of these diseases. Regular immunization programs have cut the attack rates down, but intensive campaigns are needed to complete the job.

Until we make this special effort in all parts of the country, we will continue every year to pay a costly and unnecessary toll in terms of death, suffering, and lasting disabilities. H.R. 10541 offers a prac-

tical program for putting an end to this needless toll through a concentrated program of coordinated action. We urge its favorable consideration by your committee.

I am ready to answer questions, Mr. Chairman, and I have with me Mr. Wilbur Cohen, Assistant Secretary; Dr. Clarence A. Smith, Chief of the Communicable Disease Center, in Atlanta, Ga.; and Dr. John D. Porterfield, Acting Surgeon General.

The CHAIRMAN. Thank you, Mr. Secretary, for your statement. You have made a very clear presentation of the program.

As you know, however, we like to make a full and complete record and there are some questions, I think, that would be appropriate for that.

Before starting any questions may I acknowledge the presence of the sixth grade class, of the Stewart-Tuckahoe School, in Arlington, Va.

The teacher is Miss Costello.

We are pleased to extend a welcome to you, Miss Costello and your sixth grade class.

We are honored that you have come to the Committee on Interstate and Foreign Commerce to observe the session this morning.

We have the Secretary of Health, Education, and Welfare, the Honorable Abraham Ribicoff, who is now testifying on a bill that would establish a mass inoculation program in an effort to stamp out certain communicable diseases.

This is a temporary program, is it not?

Secretary RIBICOFF. That is correct, Mr. Chairman.

The CHAIRMAN. I observe that the bill itself is open insofar as the amount of funds that will be authorized and the time?

Secretary RIBICOFF. That is correct.

The CHAIRMAN. Actually, then from the bill itself it is permanent legislation?

Secretary RIBICOFF. Yes, except for the part that has to do with polio, diphtheria, whooping cough, and tetanus.

We contemplate 3 years for that period, and the rest is——

The CHAIRMAN. I wanted to ask about that section yesterday, but I thought I would wait until you arrived this morning.

On page 3, on line 14, insofar as the four diseases are concerned, it would not be effective after June 30, 1965?

Secretary RIBICOFF. Correct, Mr. Chairman.

The CHAIRMAN. This is a rather unique way of approaching the problem of what other diesases would be anticipated following 1965 that, maybe, should be met with this kind of program.

Secretary RIBICOFF. Well, right now I could give you one example. Some outstanding work is being done in the case of measles, and it could very well be, in the very near future, that an immunization program might be developed that would warrant the licensing of an anti-measles vaccine.

We feel that when this takes place we should have the authority to move in for an immunization program against measles.

The CHAIRMAN. Surely, Mr. Secretary, you would not want to deprive a child of the wonderful experience of having the measles, would you?

Secretary RIBICOFF. Yes, I would. I think it is an experience that most mothers and fathers and children would gladly forego.

I think some of us had measles in later years. And, of course, such research work is being done in so many other diseases that it could very well be that in the near future years a vaccine might be discovered for other diseases.

We think that, under those circumstances, we should be ready to move in fast with overall programs.

The CHAIRMAN. Well, has there been any progress made on doing anything about mumps?

Secretary RIBICOFF. Research is being done in mumps.

It has not gotten as far as to have field evaluation. Field evaluation is being done in measles but not in mumps.

But this, again, may be something that might come up in the future in the development of science.

The CHAIRMAN. I had mumps, I think, when I was about 14 or 15 years of age, and I think I spread them all over Arkansas. I also had a high fever with it.

Well, a lot of concern can be caused by many of these diseases.

Now, the total cost anticipated, as you indicated in your statement, is $13.5 million for the first year, $10.5 million for the second year, and $10.75 million for each of the next 2 years.

That would, of course, be the maximum amount to experience total accomplishment?

Secretary RIBICOFF. That is right. I mean, this is the maximum amount that we would anticipate.

If all of the States took advantage of this program this sum of money would be able to handle the whole program, but yet——

The CHAIRMAN. How many years would it take to eliminate these four diseases in your judgment?

Secretary RIBICOFF. Three years. The feeling is——

The CHAIRMAN. Or, actually, will they ever be completely eliminated?

Secretary RIBICOFF. I will let the Chief of the Communicable Disease Center answer that. He is a much greater authority than I am on this.

Dr. SMITH. Mr. Chairman, there is a possibility that the use of the live polio vaccine may depress the transfer of the wild virus in the community so that to all intents and purposes it will be eliminated.

The other three diseases can be eliminated as a public health problem by keeping the immune status of the population, particularly of the young children, to 80 percent or above.

The CHAIRMAN. While we are at this point, many years ago we started a program of total eradication of malaria. Now, do we have any malaria anywhere in this country any more?

Dr. SMITH. No, sir. There is no malaria in this country that developed in this country.

We have occasional cases——

The CHAIRMAN. When I was a little boy, I did take some chill tonic. That was for malaria. But we have progressed insofar as that disease is concerned, where we do not have to worry about it.

Is that true?

Secretary RIBICOFF. That is correct.

The CHAIRMAN. But there is no vaccine against malaria, is there?

Dr. SMITH. The protection in this country against malaria is due to

the gradual elimination of people carrying the disease-causing organism and mosquito control. Natural occurring cases seldom occur in this country at the present time.

The CHAIRMAN. But the fact is the people are not vaccinated against malaria?

Dr. SMITH. No, sir. When people in our population move to malaria areas they still may get malaria and may reintroduce it into the country.

The CHAIRMAN. Well, does that mean that we just about have wiped out the disease?

Dr. SMITH. We have wiped out the disease, and there is no longer, in this country, any exposure of the susceptible population.

The CHAIRMAN. And that is what you would do with these four diseases that you are trying to get at at this moment?

Dr. SMITH. It might be possible to compare the polio control objectives to this, but not that of the other three diseases.

Immunizations will have to be maintained, hopefully within the first year of life, indefinitely.

The CHAIRMAN. Could you supply for the record the number of cases that we have had reported in this country, say, within the last 2 or 3 years?

Secretary RIBICOFF. Yes, we can. In 1960 we had 2,525 cases of paralytic polio. We do not have the number of deaths for 1960. In 1959 there were 6,289 paralytic polio cases, with 454 deaths.

In 1959 there were 934 diphtheria cases with 72 deaths. In 1959 there were 40,005 cases of whooping cough with 269 deaths.

For tetanus there were 445 cases with 283 deaths.

Now, we can submit for the record, Mr. Chairman, the statistics from the years 1952 down through 1961.

The CHAIRMAN. You may do that.

(The information referred to follows:)

Total reported disease cases and deaths, United States

Year	Poliomyelitis paralytic		Diphtheria		Whooping cough		Tetanus	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1952	21,269	3,145	2,960	217	45,030	402	484	360
1953	15,648	1,450	2,355	156	37,129	270	506	337
1954	18,308	1,368	2,041	145	60,886	373	524	332
1955	13,850	1,043	1,984	150	62,786	467	462	265
1956	7,911	566	1,568	103	31,732	266	468	246
1957	2,499	221	1,211	81	28,295	183	447	279
1958	3,697	255	918	74	32,148	177	445	303
1959	6,289	454	934	72	40,005	269	445	283
1960	2,525	(1)	918	(1)	14,809	(1)	368	(1)
1961	829	(1)	591	(1)	(1)	(1)	(1)	(1)

[1] Not available.

The CHAIRMAN. Now about the administration of this proposal, you would leave it to the States and the localities?

Secretary RIBICOFF. The States; yes, sir.

The CHAIRMAN. Dr. Teague was here yesterday, the commissioner of health of Kentucky for the American Public Health Association,

and later Dr. Gray, representing the public health officials of the States. They recommended to strike the provision "and political subdivisions and instrumentalities."

What would be your reaction to that?

Secretary RIBICOFF. I would say this: I would be against that. I would be willing to say that, should any State come out with a statewide program, I would be willing to allow the State to run the whole program. The danger to striking that provision would be clear, if a State, which was unwilling to do this on a statewide basis, but had a number of communities in the State which desired a program.

Now I think it would be wrong to penalize communities in a State if, for any reason, some States decided against the statewide program.

But I certainly would say that if a State had a statewide program I would be willing to leave the whole matter to the State instead of the localities.

I think there should be a saving clause in there, if that is the committee's inclination. In the event the State did not have a statewide program, any locality would have a right to apply to the Public Health Service for a program of its own. I think it would be wrong to penalize individual communities if, for some reason, a State refused to develop the program.

The CHAIRMAN. Do you know of any State that does not carry on a fairly good public health program?

Secretary RIBICOFF. I think they all carry on a pretty good public health program, but I cannot anticipate at this time whether one State or another would refuse to go into the program.

And I see nothing lost by such a clause, because you would assure the States complete control but, in the event they refused to go into it, at least you would not deprive a local community from having that option.

The CHAIRMAN. I think there is some merit in the position. I do not want to usurp all of the time. I have taken more than I should have at this moment, but I think I will pass now.

Mr. Younger?

Mr. YOUNGER. Thank you, Mr. Chairman.

In the first place, as I understand from the testimony yesterday and this bill, as drafted, it is not a compulsory immunization program.

Secretary RIBICOFF. That is correct, Congressman Younger.

Mr. YOUNGER. Are you willing to accept the amendment which was proposed yesterday by Dr. Stokes?

Secretary RIBICOFF. Yes, we are.

Mr. YOUNGER. You are willing to accept that?

Secretary RIBICOFF. Yes, we are, Congressman Younger.

Mr. YOUNGER. What kind of a formula——

The CHAIRMAN. What was that? I am sorry, but I did not hear that.

Mr. YOUNGER. He is willing to accept Dr. Stokes' amendment with regard to compulsion or the elimination of compulsory immunization on religious grounds as proposed by Dr. Stokes.

The CHAIRMAN. Yes, I appreciate that, but I think there is nothing compulsory about this program, is there?

Secretary RIBICOFF. There is not.

The CHAIRMAN. In other words, I think it should be made rather clear. Is there any authorization whatsoever that makes this compulsory?

Secretary RIBICOFF. Nothing at all. This is completely voluntary and there is nothing compelling any child to be vaccinated.

The CHAIRMAN. I think that should be understood.

Mr. YOUNGER. I had, as a preliminary question, that particular point.

The question which I have is, to make it abundantly clear, and to accept the amendment that was proposed yesterday, there is no objection to it, and this is not a compulsory bill, and there is no——

Secretary RIBICOFF. I have no objection.

Mr. YOUNGER. What kind of a formula do you anticipate for the distribution of these funds among the various States?

Secretary RIBICOFF. It is not a formula at all. It is done on a project-by-project basis without a formula because we believe we have enough funds to take care of vaccinating all of the children of America under 5 years of age.

Therefore, there would be no need for a formula. Each community or each State would come in with its plan, submit it to the Surgeon General, and funds would be made available to take care of whatever specific program a State might have.

So we do not think that it is necessary to have a formula because, actually, you are arranging to take care of all of the children of America under 5 years of age. So no formula is necessary, and there is enough to take care of every State.

Mr. YOUNGER. In other words, you would anticipate that out of this $13.5 million that every State could be assured of enough vaccine for all children of preschool age?

Secretary RIBICOFF. Correct. Correct, sir.

Mr. YOUNGER. So there would be no need——

Secretary RIBICOFF. That is right.

Mr. YOUNGER (continuing). For any formula?

Secretary RIBICOFF. That is correct.

Mr. YOUNGER. That is, like the Hill-Burton formula?

Secretary RIBICOFF. That is right.

Mr. YOUNGER. In your statistics about the deaths from polio, were there any deaths recorded where the vaccine had been used?

Dr. SMITH. Yes, there are, Mr. Younger.

Occasionally this happens with all vaccines. The Salk vaccine at the present time is about 85 percent effective.

And so that, in those who have obtained the Salk vaccine, only about 15 percent are susceptible.

Mr. YOUNGER. In other words, it is, from your records, about 85 percent effective at the present time?

Dr. SMITH. Yes, sir.

Mr. YOUNGER. Is the oral vaccine any more effective than the Salk vaccine?

Dr. SMITH. We feel that the oral vaccine has failures too. In certain periods of the year particularly, the growth of the attenuated virus in the intestines of the child may be inhibited by other viruses growing there. For protection you have to insure growth of the attenuated virus, and our committee suggests that this be done by

adding a fourth dose at the end of 1 year, which will fill in any holes in the immunity against any of the three types of polio.

Mr. YOUNGER. Mr. Secretary, I was following your testimony, and I thought you left out one sentence, and I was wondering if there was any reason for it.

That is the last sentence in the paragraph where you say:

> It is also due in part to social customs and practices and to the difficulties of stirring some groups into action through the usual media of health information and education.

That sentence you did not read.

Secretary RIBICOFF. I did not? I suppose I missed it accidentally in reading it. No, I did not leave it out on purpose.

Mr. YOUNGER. It was no intentional oversight?

Secretary RIBICOFF. No, it was not. That should be considered part of the record.

Mr. YOUNGER. Now, there is one thing that I would like to get your opinion on.

As you know, this year we are faced with probably one of the largest deficits of any peacetime year in our history. We are also facing a very serious deficit of an undeterminable amount for the next fiscal year.

How many new programs do you think we can take on in the face of these continuing deficits?

Secretary RIBICOFF. Well, I would say that every nation and every president and every congress has to make its choices.

If we could wipe out these diseases for the small sums of money involved here, I think the United States should do so; and, as far as I am concerned, if it were to increase the deficit by $13 million, plus $10 million, plus $10 million, to wipe out these diseases and prevent death and suffering, I think we as a nation should do it.

Mr. YOUNGER. Well, do you think that in your Department you could cut down some of the work to save that $13 million? Would it be better spent in this way than in some other way that you now have in your Department?

Secretary RIBICOFF. I would say, sir, that I have found from my brief experience so far in this Department that usually Congress adds more money to our recommendations. So it is not a question of cutting down. We find Congress much more generous with its allocations of funds than even we seek.

So when people talk about this Department advocating the spending of money, may I respectfully suggest, sir, that this is something for Congress to be concerned with. We believe that we recommend to the Congress of the United States a sound budget, based upon what we consider the orderly growth in many of these matters which are for the general welfare of the people. But I find, in my experience, that Congress usually goes us a few better.

Mr. YOUNGER. In regard to your budget this year did the House appropriate more money than you requested?

Secretary RIBICOFF. I would say in certain categories they did——

Mr. YOUNGER. I mean, the overall appropriation. Is it larger than you requested?

Secretary RIBICOFF. I think this year they did not, but they might before they are through.

Mr. YOUNGER. You think that the other body might?

Secretary RIBICOFF. Not the other body. There are other matters still pending. The other day, on our welfare bill, this Congress voted $4 more per person under the public assistance program from the Federal Government to the States, which increased the amount to $140 million more than we asked for.

So we are faced with this and, for certain research programs, they voted more; other programs they cut, but usually it ends up, before Congress goes home, voting more than we have asked for.

Mr. YOUNGER. This year you were able to take $102 million into the reserve out of this year's appropriation?

Secretary RIBICOFF. That is right.

Mr. YOUNGER. So that this $13.5 million ought not increase your normal budget?

Secretary RIBICOFF. I am sorry. Will you please repeat that question?

Mr. YOUNGER. I say, this year you were able to set aside—as I recall in your testimony here before the committee at a prior time, $102 million was put in reserves.

Some of it has been allocated out of that reserve since then; I think $15 million or something.

Secretary RIBICOFF. Very little. I think it is somewhere between $14 and $15 million.

(The following information was submitted in clarification of this testimony:)

The Labor-HEW appropriations bill for 1963, as passed by the House, contained $4,879,380,000 for programs of the Department of Health, Education, and Welfare. The House allowance was a net decrease of $105,720,000 below the recommendations contained in the President's budget. This change resulted from increases over the President's budget amounting to $142,710,000, decreases amounting to $71,349,000, deferral of appropriations amounting to $98,481,000 contingent on the extension of expiring legislation, and deferral of payments to the OASI trust fund for past military service credit in the amount of $78,600,000.

Mr. YOUNGER. So that you could rather assure us that this $13.5 million ought not to increase your budget?

Secretary RIBICOFF. I cannot assure you of that, sir. I mean, it is very easy to make a speech as to how much money people are spending and then find that we are ordered or required to spend more money by way of grants or other means than we have advocated.

Now, I understand that the Congress voted some $70 million more in our budget than we had advocated. I mean the House.

Where that will end up before the other body gets through before you go into conference, I do not know.

Mr. YOUNGER. Do you think that is $70 million more than you need?

Secretary RIBICOFF. Let me say this: It is $70 million more than we asked for.

Mr. YOUNGER. Well, you asked for all you need?

Secretary RIBICOFF. We think we did.

Mr. YOUNGER. That is all, Mr. Chairman.

Mr. MACDONALD (presiding). Mr. Moss, do you have any questions?

Mr. Moss. Mr. Secretary, do you suppose the Department could come up with some language for the committee's consideration to bring in or to reconcile the views expressed yesterday by Dr. Gray and those expressed here today by you; namely, that where a State

has a program it would require that the program be administered through the State departments of public health?

Secretary RIBICOFF. That is correct.

Mr. Moss. But where the State does not have a program then it would be possible to deal directly with local communities?

Secretary RIBICOFF. That is correct.

Mr. Moss. I recall yesterday asking Dr. Gray whether he would agree that such a proposal was desirable and his answer was:

> I would say, again speaking personally, that if a given State board of health or State health department did not want to follow along then the door ought to be opened to local communities.

Secretary RIBICOFF. Well, then, I think that Dr. Gray and I agree with one another. I would say that we certainly would be willing to have such language written right into the measure.

Mr. Moss. The thing that I was concerned about was the possibility that in some of the States, without changing the law, it is not possible for the State necessarily to take on——

Secretary RIBICOFF. That is correct.

Mr. Moss. This assignment.

Secretary RIBICOFF. That is correct.

Mr. Moss. And by the striking of the language and permitting the dealing directly with local communities we would be dictating new policy to State government.

And I think we should avoid that wherever possible.

Secretary RIBICOFF. It is not a question of new policy. You might have a situation where a State legislature may not be in session, where a State might not be in a position to appropriate for their participation or where some conflict in the State legislature might prevent authorization and yet there may be nothing in the basic law in that State that would prevent a community from participating.

Let's say that there was a conflict in California and let's say the city of San Francisco or the city of Los Angeles wanted a program.

I think it would be tragic to deprive San Francisco or Los Angeles of this opportunity if the municipality itself, through its own council and own form of government, would want a program for its children.

Mr. Moss. Could you propose language for the committee——

Secretary RIBICOFF. Yes; we would be very pleased to submit language to the committee covering this.

Mr. Moss. There were a number of other amendments suggested by Dr. Gray.

One was striking such language on page 3 of the bill and making it a long-range program.

That is, striking the sentence beginning on line 14 through line 17.

Secretary RIBICOFF. Well, I would say this: I think we should make it clear that we should make a concentrated effort to wipe out these diseases within the next 3 years.

However, if there is an inclination on the part of the committee to have a continuing program after this time, I think that could be worked out, and I would be willing to do so. I think it would be unfortunate if we did not make it clear that there should be a concentrated attack to wipe out these diseases, and that we might be more generous in the first 3 years, because the objective is to wipe out these diseases on a national basis.

Now, you might, after the 3-year period, have a program of matching grants where the States and the localities, who wanted a program, would request and match Federal funds; but I think there should be some inducement to the States to move fast because what we are really trying to do with this legislation is to wipe out these diseases.

Mr. Moss. I think that was the recommendation again of Dr. Gray, that perhaps following the initial 3 years that there be some matching formula.

Secretary RIBICOFF. If the committee would like us to, we would be pleased to submit language to accomplish this for the committee's consideration.

Mr. Moss. I think it would be very helpful.

Secretary RIBICOFF. Yes; we will submit that.

Mr. Moss. And then there was a proposal to substitute language for a formula of allocating to the States.

I am trying to find that amendment here. Yes, there was a question raised yesterday by Dr. Gray of adding language, "and such other groups having special needs as approved by the Surgeon General."

Secretary RIBICOFF. Where would that be?

Mr. Moss. That would be on page 2, line 13, after "the age of 5 years" insert "and such other groups having special needs as approved by the Surgeon General."

Secretary RIBICOFF. I think, in talking to Dr. Smith, that what Dr. Gray was talking about were special groups that might be in State mental hospitals or in prisons confined close together and where the risk would be special.

This would be a very, very small number that would be involved, and we would have no objection to that if this is what the committee has in mind.

Mr. YOUNGER. Will the gentleman yield?

Mr. Moss. Yes; I will be very happy to yield.

Mr. YOUNGER. I think, Mr. Secretary, he defined that as a group of children, mental cases and so forth, that are over preschool age that still have not been vaccinated.

I think that is the class that he was defining yesterday.

Mr. Moss. That is correct. I think he particularly mentioned the retarded children.

Mr. YOUNGER. Yes; retarded children.

Secretary RIBICOFF. I would say that I think it is a very good idea and there would be no objection to that.

Mr. Moss. There is agreement between the Department and Dr. Gray in that——

Secretary RIBICOFF. Yes.

Mr. Moss. That this would deal with this limited group and would not be intended to broaden the scope of the——

Secretary RIBICOFF. That is right, and I think we could supply language to that effect. If it were a definition of this limited group we would have no objection.

Mr. Moss. I think that is all the questions I have, Mr. Chairman.

The CHAIRMAN. Mr. Devine?

Mr. DEVINE. Mr. Secretary, I regret that I was unavoidably detained, and did not hear your formal statement.

I have just one question. I am not fully acquainted with the provisions of this legislation.

Is this a compulsory or mandatory——

Secretary RIBICOFF. No; it is not compulsory. It is voluntary.

Mr. DEVINE. All right. Do you think on a voluntary basis you can get complete coverage?

Secretary RIBICOFF. Yes; I think we can.

If it were nationwide and there was a concentration with the cooperation which you would have from civic organizations, medical organizations, the Advertising Council of America, with what you were seeking to accomplish, I do believe that we would be very successful in these programs.

I think I showed an example, and I would like to leave with this committee an example of the publicity during the Columbus, Ga., polio campaign of how this was done in Columbus, Ga., on a trial basis. I think you might be interested.

I referred in my testimony to the Columbus, Ga., experiment, and we do believe that with a national push from the Public Health Service, and the local communities, and the State health departments for what you are trying to do for children, I do think that we would be very successful in this program.

Mr. DEVINE. Well, I do not wish to belabor the committee with something that you probably already covered in your testimony.

I know in my own community in Columbus, Ohio, we had a voluntary program by the local authorities on the polio vaccine, and we were quite successful with the number of volunteers.

Secretary RIBICOFF. Yes. I think the experience of the Public Health Service has been that where a community really means business and concentrates, and where you can get the community support, that this works out very successfully.

Mr. DEVINE. Thank you.

That is all, Mr. Chairman.

The CHAIRMAN. Do you have any questions, Mr. Macdonald?

Mr. MACDONALD. No, sir, I do not, Mr. Chairman, but I would like to compliment the Secretary on his fine statement.

I would also like to ask consent of the chairman that the position of Dr. Alfred L. Frechette, commissioner of the Department of Public Health of the Commonwealth of Massachusetts be inserted in the record.

Dr. Frechette states that the Massachusetts Department of Public Health wishes to record itself in strong support of this program. And I would like to have his letter inserted in the record following the testimony of the Secretary.

The CHAIRMAN. Without objection, let it be included in the record at the point referred to.

Mr. Nelsen?

Mr. NELSEN. Thank you, Mr. Chairman.

Mr. Secretary, this bill will be largely administered then, as I understand it, by the various States?

Secretary RIBICOFF. Correct.

Mr. NELSEN. Would it then require a greater amount of personnel to handle this?

Secretary RIBICOFF. No, we do not think so; very minor personnel, but what they need is auxiliary.

There is provision in this bill to pay, from these funds, this auxiliary what the States would need to put into effect, and we do not think that it would require very much in additional personnel.

We do anticipate, on most of these, that a lot of it would be voluntary. Civic organizations, medical organizations, school authorities, and such, usually cooperate and there are many volunteers in all of the communities that participate in such projects.

Mr. NELSEN. I am interested in knowing how many additional employees does Health, Education, and Welfare have, that have been added, we will say. The last figure I heard was some 7,000. What is it now?

Secretary RIBICOFF. It depends on what time you are talking about and how many programs you gentlemen authorize.

Mr. NELSEN. In this administration.

Secretary RIBICOFF. When you say administration, I want to make this very clear. The Secretary never adds people because he goes out in the blue and hires them. Congress votes programs and authorizes the Secretary to hire people to carry out these programs. So the Secretary needs the people to carry out the programs that Congress votes.

And then, of course, it is very easy to make a statement that under the administration of such and such a Secretary or such and such a President, so many thousands of employees have been hired. But may I say to you, sir, that it is only on funds voted by the Congress of the United States that personnel is hired.

Mr. NELSEN. I think that might be disputed some.

Secretary RIBICOFF. Well——

Mr. NELSEN. No more questions.

The CHAIRMAN. Mr. Dingell?

Mr. DINGELL. Thank you, Mr. Chairman.

Mr. Secretary, I would like to join my colleagues in welcoming you before the committee this morning. It is a privilege to have you here and to note the vigorous work being done in the public interest in the Department of Health, Education, and Welfare under your extraordinary and able leadership.

I am also proud to welcome an old friend and constituent, your able Assistant Secretary, a man of extraordinary capability and devotion to public interest, Mr. Wilbur Cohen, who is also an old friend, not only of myself but of my family.

I note that you have generally resolved the questions which were raised yesterday previous to your coming. I would like to just briefly have you discuss with the committee the extraordinary work being done by the Public Health Service in its Communicable Disease Center in Atlanta and the absence of this kind of service elsewhere in the United States.

I am sure this would be most helpful to the committee and to the record.

Secretary RIBICOFF. Well, as a matter of fact, we happen to have the Chief of the Communicable Disease Center right to my right, Dr. Clarence Smith, and I know of no man more qualified to do so.

Congressman Dingell, I am pleased to have Dr. Smith explain that to you, what is being done in the Communicable Disease Center in Atlanta.

Mr. DINGELL. Doctor, I think it would be very helpful.

Dr. SMITH. Thank you, sir. The Communicable Disease Center acts as the national coordinating point for all communicable disease, control programs and applied research programs in the country. In these particular diseases——

The CHAIRMAN. Talk up just a little bit, Doctor.

Dr. SMITH. Yes, sir. In these particular diseases we are running prototype community programs in polio and in maintenance programs for all four diseases. We have large field studies going on utilizing the two kinds of proposed measles vaccines, both singly and in combination, and we assist States in laboratory and epidemiologic surveillance of all communicable diseases in the country.

Mr. DINGELL. As a matter of fact, this Center is the repository of practically all knowledge on the progress of communicable diseases in this country, is it not?

Dr. SMITH. We try to add to the knowledge and be aware of all knowledge developed elsewhere, yes, sir.

Mr. DINGELL. As a matter of fact, is there any State agency which does or can duplicate the work done in the Communicable Disease Center?

Dr. SMITH. No, sir.

Mr. DINGELL. This is the only such center? Would I be fair in assuming as we were told yesterday by one of the State people that there really are no funds on the State level available to make this kind of information and service available to the other States and that the Public Health Service is the only organization in Government, Federal or State, which is capable of doing this and which does do this very valuable service?

Dr. SMITH. Yes, sir. I think this is quite right. The type of activities that we have at the Center would be impratical for such State to set up since our efforts extend over the whole gamut of communicable diseases any one of which may or may not be a major problem in a specific State.

Mr. DINGELL. Of course, the work done under this bill will largely be coordinated through your Communicable Disease Center in consultation with the States, am I correct?

Dr. SMITH. Yes, sir.

Mr. DINGELL. You have done some remarkable work in terms of following communicable diseases across the country, for example, flu and other diseases, even polio, as they progress across the country.

Do you recall any instances of friction between the Public Health Service and the States, with regard to programs of this kind or where Federal or State agencies have not worked together, where there have been complaints by the States, or where there has been duplication, waste, or overlap?

Dr. SMITH. I think in general we work very happily with the States. Our whole method of operation is based on complete cooperation. Much of the statistical information that we get in—all of the statistical information that we get in—is furnished to us at weekly intervals by the States.

We have a group of young epidemiologists who are available to the States on request for problems beyond their resources or requiring

more people than they have available for investigation. And because of this close working relationship practically on a day-to-day basis, I think we have good relations.

Mr. DINGELL. Thank you very much, Mr. Chairman.

The CHAIRMAN. Mr. Keith?

Mr. KEITH. No questions, Mr. Chairman.

The CHAIRMAN. Mr. Rogers?

Mr. ROGERS of Florida. Thank you very much.

Mr. Secretary, it is good to see you here and we appreciate your testimony.

Could you tell me just a little bit about the Federal Government's participation in the polio program? As I recall, there were funds expended in that program which are similar to what you would try to accomplish in this bill with other diseases. Is that correct?

Secretary RIBICOFF. Well, in 1955 Congress passed an act which was later extended on February 15 to June 30, 1957, in which the Public Health Service administered $53.6 million in grants-in-aid to States for the purchase of vaccines. Then in May 1960 there was a special appropriation for the purchase of oral polio vaccine to be used in control of epidemics. That is the extent of the Federal participation.

Mr. ROGERS of Florida. Some $50 to $60 million, probably, is that right?

Secretary RIBICOFF. About $54.5 million at various times.

Mr. ROGERS of Florida. Yes. And here you are asking for how much only?

Secretary RIBICOFF. We are asking for authorization for $13.5 in 1963, and $10.7 million in 1964 and $10.7 million in 1965.

Mr. ROGERS of Florida. Yes. Now, have you any estimate as to the savings that have been brought about as a result, for instance, in polio, the control of polio? As I understand it, in 1952 you had some 21,000 cases and last year, or in 1960, I guess it was, you had only about 800 cases.

Secretary RIBICOFF. Well, in the 4 years prior to introduction of the Salk vaccine an average of 17,000 persons were paralyzed by polio each year. If cases had continued at this rate, almost 80,000 additional cases would have occurred since the Salk vaccine became available and widely used in 1956. Assuming conservatively that 35,000 cases had been prevented in the past 6 years, a savings of over $82 million in patient care costs alone has resulted, and the preservation of human usefulness in terms of probable lifetime earnings exceeds $1 billion, let alone the pain and suffering and deaths.

Before you came in, the chairman requested us to put in a table showing the decline of polio for the past 10 years, and we are going to submit that for the purposes of the record to give you all the figures on this.

Mr. DOMINICK. Will the gentleman yield there?

Mr. ROGERS of Florida. Just one moment, and I will.

Well, I think this is a very good point to make and should be brought out, that the tremendous savings, of course, not only in life and suffering but a monetary saving to the economy of this Nation is very much involved in this type of approach.

Secretary RIBICOFF. And not only that, but I will give you the figures on deaths. In 1952 there were 3,145 deaths. In 1953, 1,450.

In 1954, 1,368. In 1955, 1,043. In 1956, 566. In 1957, 221. In 1958, 225. In 1959, 454. In 1960, estimate, provisional figure of 260.

And when you consider that there were, in 1952, 21,269 cases of paralytic polio and in 1961 there were 864 cases, you can see the fantastic progress that is being made. And if we can practically wipe out these diseases by the expenditure of such a small sum of money, I think that a very worthwhile and necessary project for our Nation.

Mr. ROGERS of Florida. I yield to the gentleman.

Mr. DOMINICK. Certainly, Mr. Secretary, you are not saying that the Public Health Service was responsible for stopping polio in this way.

Secretary RIBICOFF. No, sir. I am not saying that at all.

Mr. DOMINICK. That is the point I want to make. These figures are all very interesting, but it certainly isn't the Public Health Service that has been responsible for it.

Secretary RIBICOFF. I would say this, sir. I would say that it is the recognition and the encouragement of research. It is the cooperation of researchers, doctors, and Public Health people. I think the Public Health Service or its Communicable Disease Center has been one of the great guardians of the health of our Nation and the elimination of communicable diseases of many kinds. And I don't know of any substitute in the United States for the Public Health Service's Communicable Disease Center. There is nothing to compare with it any place in the world, and I think all of us in the United States should be very proud of the services rendered by the Public Health Service and what they have achieved in their years of service to this Nation.

Mr. YOUNGER. Will the gentleman yield for just one question?

Mr. ROGERS of Florida. May I say one thing, and then I will give up the floor?

I do want to say, Mr. Secretary, that I think this Congress has recognized the efforts that the Public Health Service has played in this field and certainly by carrying on this program and getting the results of the vaccine to people, it has cut down the diseases, which is shown by the facts and figures. So I commend the Public Health Service very definitely for a great part.

Secretary RIBICOFF. I would say this.

Mr. ROGERS of Florida. A great part in this program.

Secretary RIBICOFF. I am not taking credit for it. The Public Health Service is one of the oldest arms of our Federal Government and I would say that there is nothing in America that can compare with the continuing crusade of the Public Health Service for the overall health of the American people. I think that this is something that all of us should be very proud of.

Mr. ROGERS of Florida. Yes. Thank you.

Thank you, Mr. Chairman.

Mr. MACDONALD (presiding). Mr. Curtin?

Mr. CURTIN. No questions.

Mr. MACDONALD. Mr. Hemphill?

Mr. HEMPHILL. Thank you, Mr. Chairman.

I was called to the phone when Mr. Harris was asking you some questions, and if you have already answered this, sir, please tell me.

On pages 8 and 9 of your statement you explained the amount of money which you say will be necessary for a full implementation of

the 3-year program, and you say on page 8 in the third paragraph that the standby authorization has no definite amount of money which you would expect at this time.

Secretary RIBICOFF. That is other infectious diseases.

Mr. HEMPHILL. And Mr. Harris asked you what other infectious diseases, and I was called to the phone and you were discussing mumps.

Secretary RIBICOFF. Yes. Well, the one that is almost ready for use for the American people is measles. Mumps is more indefinite. But there is so much being done in research, we don't know when there will be a break through in others. But we would hope that a vaccine for immunization against measles would be very soon available to the American people.

Mr. HEMPHILL. Well, I had in mind at that time our responsibility because the legislation proposes on page 2, line 6, it merely says, "such sums as may be necessary" to enable the Surgeon General to administer this particular program. And nowhere in the legislation as I see it is there any limitation on the amount of the authorization. Am I correct in that?

Secretary RIBICOFF. That is correct. Of course, that would be up to the Appropriations Committee. We can give you our estimates for polio, whooping cough, tetanus, and diphtheria. The figures that we gave you the new authority for the first year of $13,575,000, for 1964, $10,775,000, in 1965, $10,775,000, we believe is ample to take care of the needs. We couldn't estimate at the present time for any future diseases for which we do not have a vaccine.

Mr. HEMPHILL. Well, I had in mind the fact that if this legislation was reported out of the committee and we went to the Rules Committee and then to the floor with it, the questions are going to be asked us every time.

Now, what objection will the Department have to us writing into the legislation the amounts over the 3-year period as we have done in other legislation?

Secretary RIBICOFF. No objection at all, sir.

Mr. HEMPHILL. Now, then, the next question is in connection with the standby authorization, and I have every sympathy with your position, but shouldn't we have some figure because it occurs to me that in the field of national health, while Congress wants some limitation of authority, and actually I think once you prove your case you are not going to have any difficulty getting the necessary appropriation, but I think when we authorize it, we ought to have some figure to shoot at. Is it possible to give us any figures?

Secretary RIBICOFF. I would have to be honest with you. If you said, "What would you anticipate for measles?" The answer would have to be a guess. We know we can figure out the costs for polio. We know what the costs are for the other three diseases. We can figure out how many susceptible children there are. But we are not in a position to tell you in honesty, if we have a breakthrough in measles next year, what it will cost to eradicate measles. Therefore I am not in a position to tell this committee the cost of the standby authorization.

Mr. HEMPHILL. Would the effort necessary to get special legislation on that seriously delay such a program?

Secretary RIBICOFF. My feeling is this: Knowing the Congress, should the breakthrough come in measles, and if we came before this committee, I do believe that your committee would act fast.

Mr. HEMPHILL. I don't think you would have a bit of trouble.

Secretary RIBICOFF. I really don't think so, either.

Mr. HEMPHILL. Now, one other question was proposed in connection with your statement on page 6 in connection with the DPT program. I have been concerned, and perhaps unnecessarily so, for some time over the possibility that if the fanatics of the Communist world decided on a chemical warfare or biological warfare, what preparations we have made insofar as the civilian population is concerned for some sort of mass immunization. Has that been taken into consideration in connection with this legislation?

Dr. SMITH. At the present time, the vaccine cost for use in the adult population—the diphtheria-tetanus combination—will not be taken care of.

On the other hand, the promotional cost, the implementation cost, for a campaign including these age groups can be supported from this legislation.

Mr. HEMPHILL. Well, maybe I didn't pose my question right, sir. The thought occurred to me that if we were to get in a big war of some kind, not necessarily global but it could almost be of that proportion, and involved with chemical and biological warfare which would be spread of diseases which might not kill but might incapacitate, cripple, or irritate, something similar to either getting at the psychology of the American people or reducing their usefulness or their desire to win, what preparations, if any, has your Department considered in connection with this defense problem? And if it is something that is classified, I don't want to know it, but if it isn't I would like to know it.

Dr. SMITH. I think our particular responsibility is in the field of communicable diseases and any immunization of the overall population under the conditions you described would be of great advantage.

Mr. HEMPHILL. Would I be fair in surmising that in the big picture of this legislation, you contemplate the experience which will give you something to go on in the event that you found that necessary in a national emergency? Is that contemplated?

Dr. SMITH. I think it would give us experience in community organization and fast implementation of programs of immunization.

Mr. HEMPHILL. Could you make a statement today that the Department has that concept as part of its concept in connection with this legislation?

Dr. SMITH. Within this legislation, the direct relationship would be in tetanus. The American College of Surgery's Civil Defense Committee is very anxious for States to consider this need when this program is available to them.

Mr. HEMPHILL. Thank you, sir.

Mr. MACDONALD. Mr. Secretary, before I recognize Mr. Sibal of your home State, I would just like to say this, and I don't know whether this is appropriate because all I know is what I read in the papers, but it might be the last opportunity that I would have to sit in while you testify before this committee.

I would like to say—I can't speak for the committee but certainly on behalf of myself as a member of the committee, I would like to compliment you on the tremendous job you have done while you have been in this position.

I think that the whole Nation and your home State owes you a debt of gratitude and I would like to publicly say so.

Mr. Sibal?

Mr. SIBAL. Mr. Chairman, I have no questions; but I would like to take this opportunity to join with my colleague in welcoming Secretary Ribicoff, an old friend and a very distinguished citizen of my State of Connecticut.

Mr. MACDONALD. Mr. Dominick?

Mr. DOMINICK. Thank you, Mr. Chairman.

Mr. Secretary, on page 2 of your statement, at the bottom, you say that of some 21 million children under 5, only 7 million have received the full vaccination protection. I presume that out of this 21 million a good number have started on it, is that correct?

Secretary RIBICOFF. That is correct.

Mr. DOMINICK. Is there any indication that they are not going to complete it?

Dr. SMITH. The figures are these: In the 0 to 4 age group, 20 percent have no immunization whatsoever. Approximately 80 percent have some protection and 34 percent have adequate protection—four or more.

Mr. DOMINICK. You mean four or more shots?

Dr. SMITH. Yes. Of the Salk vaccine.

Mr. DOMINICK. Now, you have no figures on the other diseases?

Dr. SMITH. No, sir. We arrive at national figures by analogy. In the areas where we have completed statistical surveys and checked them for accuracy in general the people who have not had complete Salk vaccination have not had complete vaccination with DPT. These have been done in many areas of the country and in different socio-economic groups. Always the comparability is close.

Mr. DOMINICK. If you don't have any figures, Doctor, how do you know the comparability is close?

Dr. SMITH. We have in many selected areas. We don't have results of a national survey. The figures for polio were obtained by the Census Bureau at our request and were developed from interviews of 45,000 householders.

These figures we think are firm. Our smaller studies in different areas of the country lead us to believe that the figures for the other diseases are comparable because in every place we have studied it they have been comparable.

Mr. DOMINICK. So your figures on a nationwide basis, then, are developed from a survey of 45,000 families on polio alone?

Dr. SMITH. Yes, sir.

Mr. DOMINICK. Secondly, Mr. Secretary, what information do you have that the States don't have sufficient funds to conduct a program of this kind on their own?

Secretary RIBICOFF. The only information we have is that they are not doing it. And we do believe that the health of our people is a national problem, and unless they have this stimulation that it won't be done. We do believe that the Federal Government's program in

1955, with its some $50 million-odd for vaccine, was what triggered the action of the States to undertake the vast mass inoculation program with Salk vaccine. This sum is so small that it is important to stimulate the States.

The States aren't doing it generally. Since they are not doing it, we think it is important that it be done for the health of our people.

Mr. DOMINICK. In other words, you feel that the Federal Government should step in and take over this program by virtue of the fact that the States are not doing what you consider an adequate job on this at this point?

Secretary RIBICOFF. I would say frankly that this is the case. Since health and communicable diseases are so important to the national condition, since communicable diseases certainly jump across State lines it is important that this be done for the general welfare and health of the people of all 50 States and the territories.

Mr. DOMINICK. Now, Mr. Secretary, this bill is limited to children under the age of 5, is it not?

Secretary RIBICOFF. That is correct.

Mr. DOMINICK. Presumably anybody over the age of 5 who didn't get immunized this way would still be spreading these diseases, would they not?

Secretary RIBICOFF. I think the difference is that the largest number of unimmunized is in this age group. Many States do have vaccination programs connected with their school program and they see to it that school-age children are immunized as part of the local and State health programs. The great problem we have is that under the age of 5 before these children go to school they are not immunized and are susceptible.

Mr. DOMINICK. Let me ask you this question. Do you have any figures indicating what the incidence of disease is on those under 5? In other words, it seems to me that you have given us some figures in here on the overall population but not on those whom you propose to treat under this bill.

Dr. SMITH. You would like to have cases and deaths under 5?

Mr. DOMINICK. Well, I just thought if we were going to be dealing with children under 5 we ought to know what we are dealing with.

Dr. SMITH. All right, sir. In 1956 there were 4,295 total cases of polio reported, with 2,842 of them paralytic and with 127 deaths.

In 19——

Mr. DOMINICK. This is under 6 or under 5?

Dr. SMITH. Under 5.

In 1957, the total number was 1,633; paralytic, 1,118; deaths, 53.

In 1958, the total was 2,138; paralytic, 1,707; 57 deaths.

In 1959, 3,130; 2,624 paralytic; 87 deaths.

In 1960, 1,246 total cases, 1,073 paralytic cases, and the deaths are not in yet.

Mr. DOMINICK. That is a fairly small percentage, is it not, Doctor?

Dr. SMITH. Yes.

Mr. DOMINICK. And this is the only disease for which you have those figures except by analogy?

Dr. SMITH. No, sir. We do have actual count of deaths in the other diseases, and I can submit them for the record or read them if you would like.

Mr. DOMINICK. Mr. Chairman, could we have those submitted for the record on the other diseases?

The CHAIRMAN. Yes. If the Secretary can make that information available, it will be included in the record at this point.

Secretary RIBICOFF. We will be pleased to do so.

(The document referred to follows:)

Disease cases and deaths under 5 years of age, United States

	1956	1957	1958	1959	1960
Poliomyelitis:					
Total	4,295	1,633	2,138	3,130	1,246
Paralytic	2,842	1,118	1,707	2,624	1,073
Deaths	127	53	57	87	(1)
Diphtheria:					
Cases	378	328	263	262	235
Deaths	47	43	30	36	(1)
Pertussis:					
Cases [2]					
Deaths	252	173	173	263	(1)
Tetanus:					
Cases [2]					
Deaths	97	93	105	99	(1)

[1] Not available.
[2] Not available by age classification.

Mr. DOMINICK. Thank you, Mr. Chairman.

I want to say right here that I have a vast respect for the Public Health Service and have been working with them fairly constantly in my own State. The point I was making when I asked Mr. Rogers to yield was simply that I thought that perhaps Dr. Salk ought to be given some credit for the decrease in polio.

Secretary RIBICOFF. We are quite sure about that.

Mr. DOMINICK. It was not just the responsibility of the public health department that did it.

Now just a few more questions here. I notice that there is no restriction or requirement as to the number of additional personnel that would be added for the purpose of this bill in any State or locality.

Do you feel that there should be any such restriction?

Secretary RIBICOFF. No, because in the first place, you don't know the extent of the program in any one State. You have population differences. You have different problems. We believe the projects submitted will show the additional employees needed to assist in these projects. These applications will be examined by the Public Health Service.

They will be State employees and not Federal employees, either.

Mr. DOMINICK. How many do you estimate will be necessary to be added?

Dr. SMITH. We won't be able to make a total estimate until we get the State plans and know the number of State employees that will be needed to implement the State program.

Mr. DOMINICK. Well, then, how did you arrive at your estimated cost of $13.5 million for the first year?

Dr. SMITH. We arrived at that by pricing out the vaccine costs for all children under 5, using total population for polio, and susceptible population for DPT; developing broad plans to support the laboratory and surveillance needs of the State in relation to their present competence and ability in the laboratory and epidemiologic areas.

Mr. DOMINICK. So would it be fair to say that your estimate of costs does not include the salaries and related expenses of additional State and local health personnel needed to promote and help and organize the program?

Dr. SMITH. No, sir. I think this program will support a nucleus operation in every State. There was no attempt to try to price out the total program which we hope can be done with present facilities, with volunteers, with such organizations——

Mr. DOMINICK. Let me ask you this, then, Doctor. If there is a need for putting additional people on, will that be an additional expense over and beyond your $13.5 million?

Dr. SMITH. No, sir. This is a part of the picture and will vary according to the State plans.

Mr. DOMINICK. I don't see how it can be part of the picture if you haven't included it in your estimate. I am really confused on this. You say that you did it by the cost of the vaccine as related to the various States and then you say that there won't be any additional costs for personnel even though it is provided for in here.

Dr. SMITH. No, sir. I was talking about personnel when I talked about community organizers, laboratory and epidemiological surveillance, this sort of thing.

Mr. DOMINICK. I see. Now is there any indication in the States that people are not becoming vaccinated because there is no available vaccine or funds for the vaccination?

Dr. SMITH. In every area where we have made studies, the fact that there are in particular population segments large groups who have not been vaccinated does not mean that the community hasn't got vaccination facilities available. These are the people who do not respond readily to health maintenance programs. Particular efforts and particular campaigns pointed to these specific population groups have to be mounted in order to get them out to accept the vaccine.

Mr. DOMINICK. And have the States failed to take the initiative in conducting such campaigns?

Dr. SMITH. I think the States are doing a big part of the job. When you look at the number of school-age children who have been completely immunized, it is an impressive picture. The fact that they have not been able to get to the preschooler—and particularly the preschooler in the lower socioeconomic area—is not because they wouldn't like to but because they haven't had programs to point to this particular critical area.

Mr. DOMINICK. And whose responsibility is that, do you feel?

Dr. SMITH. I think in communicable diseases it is a joint responsibility. I don't believe the Public Health Service has any intention of taking over this responsibility.

Mr. DOMINICK. You missed the point of my question, Doctor. Whose responsibility within the States is it that they have not done this?

Dr. SMITH. The State health officer is administratively responsible for his whole area. Most of them have communicable disease control officers who take the immediate responsibility.

Mr. DOMINICK. Is it your feeling that a State agency could create a campaign which would be sufficient to get these people to be immunized?

Dr. SMITH. Yes, sir. I believe they can.

Mr. DOMINICK. If they can do that, then is there any necessity for the Federal Government getting into it?

Dr. SMITH. This is a problem of augmenting ongoing programs with Federal funds to make it possible for the combined efforts of the State and Federal Governments to be applied to these areas.

Mr. DOMINICK. I understand the purpose of the bill all right. What I am trying to find out is if we mounted a campaign on a State-by-State basis, do you thing the States have the funds and the ability to handle these programs?

Dr. SMITH. To handle their part of it?

Mr. DOMINICK. Without any Federal funds?

Dr. SMITH. No, sir; I do not believe they would.

Mr. DOMINICK. Do you have a breakdown in the States showing which ones could not do this?

Dr. SMITH. We see the total State plan of the State each year and we can assemble information showing how much money each State is applying to this particular purpose. I think it would take an immense study to see if funds could be redirected within the States, which is really the responsibility of the State health officer, not the Public Health Service.

Mr. DOMINICK. How much effort has the Public Health Service made to cooperate with the State health officers to mount campaigns of this kind?

Dr. SMITH. Except on a demonstration basis, very little.

Mr. DOMINICK. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Younger?

Mr. YOUNGER. Mr. Chairman, could I ask just two questions? I had forgotten about Dr. Salk. Was he in private practice or was he in public health or what was his background?

Secretary RIBICOFF. I thing he was professor of experimental medicine at the University of Pittsburgh—research and development.

Mr. YOUNGER. At the University of Pittsburgh when the vaccine was discovered?

Secretary RIBICOFF. At the University of Pittsburgh.

Mr. YOUNGER. One other question. You mentioned about Congress adding all of these new programs. Can you name a program that Congress has put into an appropriation bill that was not recommended by——

Secretary RIBICOFF. Not the new——

Mr. YOUNGER. By the administration?

Secretary RIBICOFF. Not a new program, but adding on to the program, Congressman Younger. If you want us to give you the figures from last year's budget—I don't have them in front of me—of how much more Congress voted than we advocated, I would be pleased to supply that for the record.

Mr. YOUNGER. And any new programs that were added by Congress that were not recommended by the administration?

Secretary RIBICOFF. I think it is a matter of degree. I think you haven't added any new programs but you have expanded programs that we have advocated.

Mr. YOUNGER. Without recommendation by the administration?

Secretary RIBICOFF. That is right.

Mr. YOUNGER. Will you furnish those, please? I would like to have them for the record.

(The following information was submitted for the record:)

The Labor-HEW Appropriation Act for 1962 included appropriations for the Department of Health, Education, and Welfare amounting to $4,260,429,000. This represented total increases of $203,012,000 above the President's budget estimate, with offsetting decreases of $137,419,081 for a net congressional increase of $65,592,919. The major elements of the decrease were $100 million in grants to States for public assistance, and $27 million in vocational rehabilitation grants, the latter of which represented essentially a bookkeeping adjustment. A supplemental estimate for public assistance grants for 1962 is now before the Congress.

The funds added to the HEW budget by the Congress were distributed among many of the programs of the Department. The major components of the increase, however, were $155 million for the extramural and intramural medical research programs of the National Institutes of Health, $25 million for hospital construction grants, $5 million for grants for the construction of cancer research facilities, $3 million for research and training in the field of vocational rehabilitation, $1.5 million for radiological health, $4.3 million for grants for maternal and child welfare, and $1.8 million for shellfish sanitation. Increases of smaller magnitude were made in a variety of other programs.

Mr. NELSEN. Mr. Younger, will you yield?

Mr. YOUNGER. Yes.

Mr. NELSEN. The proposal that we are hearing today I feel has merit and I like the part of it where the States are to become a great part in the administration of it. But as the record will read, according to Secretary Ribicoff's answer to my question, added employees are a result of what Congress has forced on HEW. I ran an agency and I found out you could reduce personnel in some areas and might have to add some in another. My question was how many employees you have added and I think it is important and I think we have a right to know not only in your department but all departments.

I did not get an answer and, Mr. Chairman, if the staff would get the information for me, I would appreciate it. I would like to know how many employees have been added in Health, Education, and Welfare.

I think I am entitled to an answer, Mr. Chairman.

Secretary RIBICOFF. I mean I can't give you that in all the departments off the top of my hat. I will be pleased to submit them with a breakdown of what programs and purposes they were used for. This I will be pleased to submit to you, Mr. Chairman. They are a matter of public record and we will be pleased to supply that to you.

(The information requested follows:)

As of March 31, 1962, the total employment of the Department was 74,577. This represents an increase of 4,237 during the first 9 months of fiscal year 1962 over the total employment as of June 30, 1961.

The major portion of this increase has taken place in the Social Security Administration, and is related to the additional workloads in the Bureau of Old-Age and Survivors Insurance created by the enactment of the 1960 and 1961 amendments to the Social Security Act. This accounts for approximately 2,800 of the full and part-time employees who have been added to the Department's staff.

The other major element of increase is approximately 1,200 employees in the Public Health Service. These are engaged mainly in the extramural, intramural, and technical support programs of the National Institutes of Health, the environmental health programs of the Bureau of State Services, and the medical care programs of the Division of Indian Health.

The remainder of the increases in employment in fiscal year 1962 have been divided among the Food and Drug Administration, the Office of Education, St. Elizabeths Hospital, and the Office of the Secretary, and are related to the expanding programs of those agencies.

Mr. NELSEN. That is all.

The CHAIRMAN. Mr. Secretary, what is the difference between project grant and a formula grant?

Dr. SMITH. The project grant is a grant to the State made on the basis of an application that describes the activity. The amount of a formula grant is commonly determined on the basis of extent of the problem, the State population, and the per capita income in the State.

This means that in formula grants, every State, whether ready or not for this program, would receive its share of the total appropriation each year.

In project grants, the moneys can be distributed over the 3-year period according to the need and readiness of the particular State involved.

The CHAIRMAN. In other words, you prefer the project grants?

Dr. SMITH. Yes, sir.

The CHAIRMAN. And a formula grant under this program, you do not think would be suitable?

Suppose the costs of the program submitted by the States were to exceed the amounts that would be obtained from the bill. What would happen then?

Secretary RIBICOFF. In this case we don't believe so. We have very carefully figured out by the costs of the vaccine and previous experience that there is enough money to take care of all the children under 5.

The CHAIRMAN. In other words—I know, but if you didn't get what you asked for, would it be then administered pro rata?

Secretary RIBICOFF. Then you would have to cut back the program. In other words, if Congress did not give you what you had requested, then, of course, you could only take care of a smaller number of projects. Then, of course, if you had a formula, instead of a project grant, you might have a problem. Money might be allocated for State X who had no program and you might have State Y who would not have enough; and there might be some children who could have been inoculated and weren't because money was set aside for a State that didn't seek it.

The CHAIRMAN. This money would be for the purchase of the vaccine?

Secretary RIBICOFF. For the State personnel to ——

The CHAIRMAN. To be administered?

Secretary RIBICOFF. To administer and to do the job, yes, sir.

The CHAIRMAN. You would have in mind making vaccine available without charge to doctors?

Secretary RIBICOFF. The State would have its own policy. In other words, we would give the State money. It could purchase its own vaccine or we could purchase vaccine for the States, depending on the State preference. The State then would come up with its plan for the locality—to supply it to doctors or to public health centers or to school systems—whatever system or program the State itself or the locality developed, Mr. Chairman. But it is contemplated that

if a State wanted vaccine to go to private physicians to be administered, the vaccine would be supplied to the States for distribution to the private doctors.

The CHAIRMAN. Mr. Secretary, let me on behalf of the committee thank you very much. We appreciate your appearance this morning and the testimony on this part.

Secretary RIBICOFF. Thank you very much.

(The following letter was later received from the Department of Health, Education, and Welfare:)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, May 28, 1962.

HON. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: In response to the committee's request, I am enclosing a draft of two amendments to the proposed Vaccination Assistance Act of 1962 (H.R. 10541) which would reconcile the bill more closely with two suggestions for revision proposed by the Association of State and Territorial Health Officers.

The first amendment relates to the question of direct grants to local political subdivisions. We feel it important that such local communities not be denied the opportunity to participate in the vaccination programs proposed in the bill when a State for any reason is not prepared to take leadership in a statewide program. On the other hand, we agree that it would be desirable to obtain the approval of the State health authority in such cases. The amendment suggested would retain this authorization for direct grants to local areas, but would require the approval in such cases of the State health authority.

The second amendment would modify the limitation contained in the bill with respect to the age group of children eligible to receive free vaccine under the program. It would recognize that there may be some other selected groups of children in addition to those under 5 years of age who are not normally served by school vaccination programs. The amendment would authorize the Surgeon General by regulation to extend the eligibility for free vaccine to such groups.

We have also given further consideration to the suggestion discussed during the hearings that the legislation be amended to provide special Federal financial assistance for continuing vaccination programs against polio, diphtheria, whooping cough, and tetanus after the 3-year intensive programs now covered by the bill. It is our recommendation that such an amendment should not be adopted at this time because there are already two authorizations for grants to States which can be and are being used for this purpose. These are the maternal and child health grants appropriated under authority of title V of the Social Security Act, and the grant funds appropriated under authority of section 314(c) of the Public Health Service Act. We believe that with these two existing authorizations no additional continuing authority would be needed.

I am also enclosing for inclusion in the record, a statement on the national defense implications of the proposed vaccination program which more fully answers the question asked on this subject during the hearings.

Sincerely yours,

WILBUR J. COHEN, *Assistant Secretary.*

Enclosures.

AMENDMENTS TO H.R. 10541

(Requested of Secretary Ribicoff by Congressman Moss at May 16, 1962, hearing on bill)

(*1*) *Approval of State health authorities*

Page 2, line 7, insert the following before "political": ", with the approval of the State health authority, to".

(*2*) *Purchase of vaccines for additional groups*

Page 2, line 13, insert the following after "years": "and such additional groups of children as may be described in regulations of the Surgeon General upon his finding that they are not normally served by school vaccination programs".

NATIONAL DEFENSE IMPLICATIONS OF THE VACCINATION ASSISTANCE ACT OF 1962

H.R. 10541 has many implications important to the Nation's defense.

At the present time the adult population of this country has a low level of immunization against tetanus and diphtheria. In time of disaster these two diseases could be of major importance.

It is estimated that 70 percent of the casualties of a nuclear disaster would have traumatic injuries. Many of these injuries will be penetrating wounds, contaminated with dirt. The spores of tetanus are universally present in the soil, and therefore many of the wounded will be potential cases of tetanus Even with intensive hospital treatment, which will not be available in time of disaster, less than 50 percent would survive.

The crowded living conditions in shelters, would be conclusive to diphtheria. Diphtheria was a major health problem during the saturation bombings of Germany.

Therefore, establishing immunity to these two diseases now would be of immeasurable importance in time of disaster. The health mobilization activities of the Public Health Service and the disaster committees of medical societies strongly endorse the concept of immunization for the Nation's defense.

The provisions of H.R. 10541 would provide the basis for widespread vaccination of children under 5 years of age and, through the promotion and organization of intensive community vaccination programs, greatly stimulate the diphtheria and tetanus vaccination of the adult population. In addition, the experience gained from conducting such intensive community programs would be of considerable value in terms of emergency.

Thus the bill, while not designed as a general defense measure, would be of substantial benefit in this regard.

The CHAIRMAN. We have a statement here from Dr. Alfred Frechette and if there is no objection, it will appear at this point in the record.

(The statement of Alfred L. Frechette, M.D., commissioner of public health, Commonwealth of Massachusetts, follows:)

STATEMENT OF ALFRED L. FRECHETTE, M.D., COMMISSIONER OF PUBLIC HEALTH, COMMONWEALTH OF MASSACHUSETTS

The President's proposal to provide Federal assistance to State and local programs for immunization of preschool children is praiseworthy and timely. The value of such a program lies in the impetus that it can give to local programs which in many cases do not provide sufficiently thorough coverage of young children with regard to the immunizations that they should have. The Massachusetts Department of Public Health wishes to record itself in strong support of this program.

When the percentage of immunized schoolchildren is only moderately good there is a continuing danger that outbreaks of diphtheria, whooping cough, smallpox or poliomyelitis may occur. Such outbreaks are dangerous to all persons, young or old, who are not immune, and also their control is far more expensive and time-consuming than their prevention by means of thorough preschool immunization. In such a program, tetanus toxoid immunization should also be included, not only to protect individual children against this dreadful disease, but eventually to eliminate the need for tetanus antitoxin with its risk of severe reactions.

This comment is not intended to be critical of local programs; indeed the essence of effective public health activity—as with all similar activities—is local interest, initiative, and participation. Ths has been abundantly proved—if proof was needed—by the various community drives for mass oral poliomyelitis immunization which have taken place in many other areas, and recently in Massachusetts. In all such programs the degree of success is very much dependent on the extent to which the community takes active responsibility for the program.

However, dedication and enthusiasm are not in themselves enough. Futhermore, the lack of sufficient funds frequently kills of such enthusiasm before it can take root; and the lack of adequate technical guidance and careful surveillance of local programs often spells failure for such programs. As pointed out above, the emphasis must be on the importance of excellent rather than merely

"good" immunization programs. And it is in maintaining excellence that Federal support can be most valuable. Past experience has shown repeatedly that Federal participation in the support of State health programs has often made a critical difference in the chances of achieving success in such programs. This principle will certainly apply to State and local immunization programs, since the provisions of H.R. 10541 and S. 2910 for assisting vaccine purchase, epidemiologic and laboratory surveillance, etc., are exactly what is generally needed to convert an inadequate program into a really effective one.

The proposed bill would presumably operate in basically the same way as the already well-tested Federal programs to support State and local control of venereal diseases, tuberculosis, etc. The principle of State and local planning and action, with Federal fiscal assistance and technical guidance, is a sound and accepted one. If applied to immunization, as proposed in these bills, it should make it possible to eliminate poliomyelitis, diphtheria, whooping cough, and eventually tetanus as public health problems.

The CHAIRMAN. It is now 12 o'clock. The House is in session.

May we have order just a minute.

I would like to see what we can do about hearing the other witnesses. We have four witnesses yet to be heard. I wondered if those witnesses who are to be heard could be back at 3 o'clock this afternoon?

We will undertake that, then, and see if we can't——

Dr. DAILY. I'm sorry, I cannot.

The CHAIRMAN. What is your name?

STATEMENT OF EDWIN F. DAILY, M.D., VICE PRESIDENT, HEALTH INSURANCE PLAN OF GREATER NEW YORK

Dr. DAILY. Dr. Daily from New York.

The CHAIRMAN. Dr. Daily, we are going to have a rollcall right away. We can't go on now. We will just have to arrange some other convenient time for you. I had hoped to get through with this this week if we could. I assume that it will not be satisfactory just to submit your statement?

Dr. DAILY. I would be very happy to. It is ready for submission. I can submit it to you now.

The CHAIRMAN. Very well. We will be glad to have you submit it for the record, and you are Edwin F. Daily, vice president of the Health Insurance Plan of Greater New York, and also representing Group Health Association of America, 625 Madison Avenue, New York 22, N.Y.

You may submit your statement for the record.

(The prepared statement of Dr. Edwin F. Daily with attached resolution follows:)

STATEMENT BY EDWIN F. DAILY, M.D., VICE PRESIDENT, HEALTH INSURANCE PLAN OF GREATER NEW YORK

I am Dr. Edwin F. Daily, vice president of the Health Insurance Plan of Greater New York, a nonprofit health insurance plan providing comprehensive medical care for 630,000 men, women, and children. I speak today both for HIP and for the Group Health Association of America, of which HIP is a member organization.

I wish to endorse the bill and commend the Members of Congress who are interested in furthering such legislation. The purpose of the bill—to protect all the American people against diseases such as poliomyelitis, diphtheria, whooping cough, and tetanus—is admirable.

In my own organization, HIP, we have made a major effort to immunize our large insured population. Studies have shown that our infants are 95 percent immunized for smallpox, diphtheria, whooping cough, and tetanus before they are 1 year of age.

In organized medical care plans, such as HIP and the other prepaid group practice plans affiliated with the Group Health Association of America, standards of care can and are established and carried out, families can be regularly informed about immunizations, and all participating physicians gladly carry out our immunization efforts. Since our physicians are paid on a salary basis rather than fee for service, there is a very real incentive to prevent illness and thereby lessen the need for medical care during illness.

Last year HIP decided to provide, without charge to its subscribers, all materials used for immunization. The cost of some vaccines can be a deterrent to a family with several children. For example, the Salk vaccine had cost us approximately $1 per injection and, with three injections per person, the cost to a family with two parents and five children would be $21.

When the Surgeon General of the U.S. Public Health Service recently approved type III oral vaccine for polio, HIP, with the advice of eminent epidemiologists, decided to immunize promptly as many of its insured persons as possible. In less than 5 weeks we had (*a*) sent special letters to all of our subscribers telling why they should have the new vaccine and where and when it would be provided by the 31 HIP medical groups; (*b*) solicited bids and purchased the vaccine needed; (*c*) rehearsed with the staff of each of the 31 medical groups every detail for carrying out a large-scale mass immunization program; and (*d*) requested and received the cooperation of the police department in handling anticipated traffic problems.

On a Saturday and Sunday early in May, over 150,000 men, women, and children took the new oral vaccine for polio from small paper cups and, for infants, by a dropper directly into the mouth. It was a joy to see these families happily participating in a well-planned immunization program. No one had to wait more than a few minutes since 1 nurse can easily feed the vaccine to over 1,000 persons per hour.

I have told you about this one effort at mass immunization because it is a clear cut, timely example of what you are desirous of accomplishing under the provisions of H.R. 10541.

I heartily endorse this legislation.

I also wish to present the following resolution adopted unanimously at a meeting of the Group Health Association of America now in annual session in Washington, D.C.

(At its annual meeting today in the Hotel Shoreham, Group Health Association of America voted unanimously to adopt the following resolutions in support of the Vaccination Assistance Act of 1962 (H.R. 10541 and S. 2910):)

"Whereas it is a basic tenet of the Group Health Association of America, Inc., that preventive medicine is one of the keystones of high quality medical care; plans affiliated with GHAA, with a total membership exceeding 4 million persons, have long implemented this conviction by utilizing all available techniques for the prevention of unnecessary illness and premature death; activities toward this end have frequently included leadership and cooperation in broad community immunization programs; and

"Whereas there are still large numbers of people who are not yet adequately protected against certain preventable communicable diseases, and who apparently cannot be reached by conventional immunization programs that have been tried in the past; and

"Whereas the proposed Vaccination Assistance Act of 1962 would 'assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs'; and

'Whereas it can be expected that programs carried on with aid provided for by the Vaccination Assistance Act of 1962 could effectively eliminate preventable communicable diseases: Therefore, be it

"*Resolved*, That the Group Health Association of America, Inc., urges the prompt enactment of the Vaccination Assistance Act of 1962, (H.R. 10541 and S. 2910); and be it further

"*Resolved*, That GHAA urge its member plans to cooperate fully in the implementation of local community programs that can be expected to be undertaken under the provisions of the Vaccination Assistance Act of 1962."

The CHAIRMAN. Off the record.

(Discussion off the record.)

Mr. DINGELL. Mr. Chairman, I wonder if the Doctor could just tell us whether he favors the legislation or not?

Dr. DAILY. I am completely in favor of the legislation.

Mr. DINGELL. Do you have any suggestions or amendments or changes?

Dr. DAILY. I do not suggest any amendments or changes in the language.

Mr. DINGELL. You have been very helpful. Thank you.

The CHAIRMAN. The committee will adjourn and will be back here at 3 o'clock.

(Whereupon, at 12 o'clock noon the committee recessed, to reconvene at 3 p.m., on the same day.)

AFTERNOON SESSION

The CHAIRMAN. The committee will come to order.

Off the record.

(Discussion off the record.)

The CHAIRMAN. We are very glad to have as our next witness Mr. Andrew J. Biemiller.

Mr. Biemiller, we are glad to welcome you back to the committee. It is always a pleasure to have a former member of this committee return and give us the benefit of his wisdom, counsel, and good judgment.

STATEMENT OF ANDREW J. BIEMILLER, DIRECTOR, DEPARTMENT OF LEGISLATION, AFL–CIO; ACCOMPANIED BY LISBETH BAMBERGER, ASSISTANT DIRECTOR, DEPARTMENT OF SOCIAL SECURITY, AFL–CIO

Mr. BIEMILLER. Thank you, Mr. Chairman.

For the record my name is Andrew J. Biemiller. I am the director of the AFL–CIO Department of Legislation, and my office is at 815 16th Street NW., in Washington.

I am accompanied by Miss Lee Bamberger, assistant director of the AFL–CIO Department of Social Insurance.

The support of the AFL–CIO for the Vaccination Assistance Act of 1962, H.R. 10541 is based on a very simple premise. We have at hand the scientific tools to eliminate entirely the suffering and death caused by polio, diphtheria, whooping cough, and tetanus. We have had these tools available for a number of years. But until now these tools have not been employed effectively enough to accomplish the job—the total eradication of these diseases.

It is clear that the methods used up to now to provide protection against these inflectious diseases have simply not reached large numbers of the Nation's citizens—and what is particularly deplorable, vast numbers of children have been left unprotected.

The children who are adequately immunized today are the fortunate ones. A breakdown of vaccination statistics shows that the protected ones are fortunate not only in that respect, but that they tend to be the children blessed with other advantages as well.

Take protection against polio, for example. Among children under 5 in Harrisburg, Pa., 65 percent of the upper socioeconomic group had received three or more Salk vaccine shots, compared to 35 percent in the lower socioeconomic group. In Atlanta, Ga., 78 percent of the children under 5 in the upper group were protected. For the lower group the figure was 30 percent.

Maps that plot the geographic location of cases of paralytic polio in recent years graphically tell the story of our failures. Before the advent of vaccine, cases of polio were spread out quite evenly, throughout a city. Today, cases of paralytic polio are concentrated in a city's central core. This is where the poorer, the less privileged, the minority groups are to be found, and this is where the unvaccinated remain.

At the 1960 midwinter clinical sessions of the American Medical Association, Dr. E. Russel Alexander, Chief of the Surveillance Section of the U.S. Public Health Service Communicable Disease Center, gave a report on the distribution of cases of paralytic polio since the discovery of Salk vaccine. We find this report profoundly disturbing. I am now quoting from it:

> Fundamentally, there is a concentration among preschool, lower socioeconomic children in crowded urban areas and selected rural localizations. This pattern was first seen in 1956, after widespread use of vaccine * * * a rather general distribution in Chicago in 1952, (contrasts) with a well demarcated concentration among lower socioeconomic groups in crowded slums in 1956, predominately Negro in this instance.
>
> This year in Providence, R.I., poliomyelitis was concentrated in children in lower socioeconomic housing developments, where failure to utilize the available vaccine, completely, has resulted in islands of susceptibles in an otherwise well-protected community. In Baltimore, the localization in crowded slums was even more evident; the attack rate in Negroes was approximately twice that in the white population, and large suburban areas remained free of disease.
>
> When the occurrence is in other than urban areas the pattern persists. Besides the concentrations among Negroes and Puerto Ricans in cities, we find concentrations in poor farming areas, among Indians, and isolated religious sects. In all instances the pattern of polio is the pattern of the unvaccinated.

The bill now before you represents the first proposal of sufficient scope and vision to deal effectively with this situation. With its enactment we can expect finally to reach those who have remained beyond the reach of the programs that have been attempted in the past, and thus to eliminate at last class differences in the protection of children against preventable infectious diseases. Attempts at the application of scientific diseases. Attempts at the application of scientific developments to prevent these diseases have depended until now on a combination of hopes, uncoordinated and loosely organized local campaigns, and on often chaotic distribution of vaccine supplies. This bill seeks to supplement the efforts which have not wholly succeeded with a program where the resources of the Federal Government can be utilized by local communities to make vaccines available and to provide needed organizing skills.

From the experience of the AFL–CIO in many community vaccination drives of the past, we are led to agree with the observation of the Secretary of Health, Education, and Welfare that "convenience and inexpensiveness will be the deciding factors to many groups of

individuals who have not been previously immunized." We support heartily Secretary Ribicoff's conclusion that it will be—

> necessary for each program to provide enough public or nonprofit community vaccination facilities to vaccinate at no or low cost all who wish to avail themselves of this method of vaccination and, in the case of children under 5, without charge for the vaccine or its administration.

The executive council of the AFL–CIO has reviewed the proposed legislation, and acted on April 27 to give its unanimous endorsement in the following statement:

> The executive council is most gratified to note that the President has proposed a program to eradicate polio, diphtheria, whooping cough, and tetanus from the Nation, and that legislation to put this program into effect has been introduced in the Congress by Senator Lister Hill and Representative Oren Harris.
>
> This country has the resources to eliminate these diseases, but these diseases are still causing disability and premature death. We are not applying our technical know-how, and we must.
>
> Improved techniques to control infectious diseases have not, up to now, benefited all Americans. For example, while the advent of Salk vaccine has greatly reduced the incidence of paralytic polio, among children under 5—a group particularly susceptible to polio—less than half have been adequately protected through vaccination. Children who live in slums and other blighted areas remain unprotected in even larger numbers, and these are the areas where the remaining cases of polio are predominantly to be found.
>
> The President's program, incorporated in the Hill-Harris vaccination assistance bills (H.R. 10541 and S. 29010), would authorize Federal funds to cover the full cost of vaccine for all children under 5 years of age, and to assist in meeting the cost of organizing vaccination drives.
>
> The AFL–CIO has long urged that more be done to make the benefits of medical discoveries widely available to all the American people. We are gratified that the Federal Government is exerting its leadership in this direction. We heartily support H.R. 10541 and S. 2910, and expect to cooperate with other voluntary groups and public agencies in implementing in all communities the immunization program contemplated by this legislation.

In conclusion, Mr. Chairman, on behalf of our members and their families, we strongly urge this committee to act promptly and favorably on this program, so that we may hasten the day when suffering and death from polio, diphtheria, whooping cough, tetanus, and other infectious diseases will no longer coexist with the scientific techniques which could prevent them.

The CHAIRMAN. Thank you, Mr. Biemiller.

Mr. Hemphill, have you got any questions?

Mr. HEMPHILL. No, thank you, Mr. Chairman.

The CHAIRMAN. Mr. Younger, do you have any questions?

Mr. YOUNGER. No.

The CHAIRMAN. We appreciate having your support for this program. There have been a good many questions that have cleared up some of the things in the program and you heard the testimony of the Secretary this morning. Would it be appropriate to say that you share approximately the same views that he expressed with reference to some adjustments that could be made to this bill?

Mr. BIEMILLER. Yes, Mr. Chairman, that is correct. I sat through practically all of the Secretary's testimony and I would concur in the views that he expressed this morning on certain adjustments that you think are needed in the bill.

We in the labor movement have known for years that almost any piece of legislation can be improved and sometimes modifications are needed here and there. Certainly I saw nothing in the testimony of

the Secretary this morning that I think would do harm to the bill, and any improvements that will hasten its passage are devoutly to be desired.

The CHAIRMAN. Thank you very much. We do appreciate your appearance here.

Mr. BIEMILLER. Thank you very much, Mr. Chairman.

The CHAIRMAN. And the lady with you, Mr. Biemiller.

Miss BAMBERGER. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Clinton R. Miller, assistant to the president, National Health Federation, here in Washington.

Mr. Miller, you may proceed.

STATEMENT OF CLINTON R. MILLER, ASSISTANT TO THE PRESIDENT, NATIONAL HEALTH FEDERATION, WASHINGTON, D.C.

Mr. MILLER. Mr. Chairman, for the record I am Clinton Miller, assistant to the president of the National Health Federation. Our main office is 709 Mission Street, San Francisco 3, Calif. Our Washington office is at 1012 14th Street, Washington, D.C.

Mr. Chairman, in order to save the time of yourself and the committee, may I request that my statement be included in the record and I should like to confine my oral statement to a few brief remarks.

The CHAIRMAN. Mr. Miller, under the rules, that is the procedure that we have here which, of course, is part of the Reorganization Act of 1946, and therefore I was going to suggest that you might pursue this course and your statement will be put in the record at this point.

(The document referred to follows:)

STATEMENT BY CLINTON R. MILLER, REPRESENTING THE NATIONAL HEALTH FEDERATION

The National Health Federation is a nonprofit, health rights corporation with its main offices at 709 Mission Street, San Francisco, Calif. Our Washington office is in the Continental Building, 1012 14th Street, NW., Washington 5, D.C.

The National Health Federation is a national organization, composed of thousands of members who believe in freedom of choice in matters of health where the exercise of that freedom does not violate the equal freedom of another.

We wish to appear as a witness and to file a statement for the record. The presentation of testimony by the National Health Federation in opposition to H.R. 10541 does not mean that the National Health Federation is opposed to vaccination as a means of protection of individuals against poliomyelitis, diphtheria whooping cough, tetanus, and other diseases which may in the future become susceptible of practical elimination through vaccination.

The National Health Federation has members who believe in the efficacy of vaccination, who have had themselves and their children vaccinated, and who urge others to do likewise.

Their urging, however, would stop short of supportiing legislation to make their own views the official views of America. They would stop short of supporting legislation to require other members of the National Health Federation and of America, who do not believe in vaccination to pay the cost of intensive community vaccination programs through taxation to support Federal grants.

They believe in freedom of choice in matters of health with the same intensity that they believe in freedom of choice in matters of religion. The only time they would feel justified in violating an American's exercise of his freedom of choice in matters of health would be when such exercise of freedom violated the equal right of another. Clearly at the present time no one is denied vaccination for themselves or their children if they desire it. Therefore, citizens who exercise their freedom of choice by choosing not to be vaccinated are not denying an equal right to another by the exercise of this freedom.

This principle of freedom is a superior and more fundamental consideration than that of vaccination. There are those people who so stoutly believe in the principle of vaccination that their enthusiasm leads them to an intolerance of anyone who just as stoutly does not believe in it.

So long as the Government maintains a neutral role, and allows the exchange of ideas on vaccination or other health beliefs to be between individuals and groups of individuals, there will be a healthy exchange of ideas and approaches which will lead to practical elimination of the specific diseases mentioned in H.R. 10541, and others.

It is granted that this insistence on freedom will allow some to make mistakes. It is acknowledged that some will make bad choices. But isn't that what freedom is?—the right to be wrong? If we are not free to make wrong choices, then we are not free. The tyranny that forces a man to be healthy is as much to be feared as the tyranny that forces a man to be good.

To those who would argue that freedom in economic matters is one thing, but that a mistake in the matter of vaccination can be fatal, we would agree that this is true. Those who defend freedom must be prepared to share the responsibility for those who suffer from poor choices. But we would point out that if a person makes a poor choice in religion, some claim that they might be consigned to an eternity of torment. Yet we allow people in this country freedom in such an important matter.

This does not mean that we are indifferent to God as a nation, or are unaware that individuals will make bad religious choices. It does mean that we believe as a nation, and the founders of our Constitution believed that the protection of the freedom of choice in these matters is the best way for the most people to make the right choice. It has the refreshing defense that those who make the wrong choice have only themselves to blame, and are the only ones to suffer.

Those who believe in freedom of choice in matters of politics, religion, and health, emphasize that minority views of one generation become majority views of another. History has a wonderful lesson to teach us here if we will learn it. History will record a man of one age as a wise man, even though subsequent research might prove his theories to be in error, if he refrained from force of any kind in sharing of his beliefs with his disciples and contemporaries. But it will record the same man with the same theories as a fool or a tyrant, who uses, or allows to be used, force of any kind—not the least of which is governmental force—to gain acceptance for his beliefs.

Humility about the extent of one's knowledge, or of the collective knowledge of any age is always the mark of greatness, progress, and understanding. It breeds tolerance, love, unity, and all the other human virtues that make for a happy existance while we individually and collectively live our earthly existence.

Freedom in matters of religion were not lightly come by, for history records many martyrs who died to explain this yearning for freedom to later generations. The problem is still unresolved as to which martyr died for the truest religion, but it is clear that there was a unity among all martyrs in their belief that "Congress (the state) shall make no law respecting an establishment of religion or prohibiting the free exercise thereof * * *". It remained for American patriots to embody this belief in a Constitution.

Dr. Benjamin Rush a signer of the Declaration of Independence, and Congressman is quoted as saying "The Constitution of the Republic should make provision for medical freedom as well as for religious freedom. To restrict the art of healing to one class of men and deny equal privileges to others will constitute the bastile of medical science. All such laws are un-American and despotic. They are fragments of monarchy and have no palce in a Republic."

We maintain that this right was implied, if not written. If his suggestion had been embodied in the Constitution as one of the Bill of Rights, we would be considering this legislation in a different light today. Substitute the phrase "intensive religious programs" for "intensive vaccination programs" in the bill H.R. 10541, and you will see how clearly it would have violated such an amendment, had it been written, and included in the Bill of Rights.

But the fact is that it was not written, and we are left to argue that it was certainly implied. At the time Benjamin Rush made this plea, it was argued that this "right" was assumed by the guaranteed freedom of religion and didn't need to be codified. This was true for his time. Dr. Rush's concern was for the future, not the then present possibility of abuse in this matter. Incidentally, Dr. Rush was a strong believer in vaccination theories of Jenner, but emphasized the greater need for freedom in all health matters. It has fallen the lot of this

generation to solve this problem. The bill H.R. 10541 is one testing ground for the limitation or extension of governmental control in matters of health.

Dr. Herbert Ratner, M.D., director of public health, in Oak Park, Ill., and associate clinical professor of preventive medicine and public health, Stritch School of Medicine, Chicago, has raised some penetrating questions on the Salk vaccine and mass vaccination. In my written statement, I have included his letter to the editor published January 21, 1956, in the Journal of the American Medical Association (vol. 160, No. 3, pp. 231–232). At this time (1956) Dr. Ratner was a rather lonely voice, critical of the Salk vaccine promotors inadequate information to the medical profession. He charged "We should recognize that only one side of the ledger is being presented by the promoters of this vaccine."

Other prominent medical doctors, biostatisticians, and scientists were found to share Dr. Ratner's concern to have both sides of the ledger fairly presented. The Illinois Medical Journal of August 1960 (vol. 118, No. 2), printed a panel discussion entitled "The Present Status of Polio Vaccines." This was presented before the section on preventive medicine and public health at the 120th annual meeting of the ISMS in Chicago, May 26, 1960. I have included this article with bibliography and notes in my written statement. The distinguished panelists were Herald R. Cox, Sc. D., Pearl River, N.Y.; Bernard G. Greenberg, Ph. D., Chapel Hill, N.C.; Herman Kleinman, M.D., Minneapolis; Paul Meir, Ph. D., Chicago.

In this article, Dr. Herbert Ratner points out that—"In the fall of 1955 Dr. Langmuir had predicted that by 1957 there would be less than 100 cases of paralytic polio in the United States. As you know, 4 years and 300 million doses of Salk vaccine later, we had in 1959 approximately 6,000 cases of paralytic polio, 1,000 of which were in persons who had received three, four, and more shots of the Salk vaccine. So you see, expectancy of the Salk vaccine has not lived up to actuality, and Dr. Langmuir was right when he said the figures of 1959 were sobering."

A quote by Dr. Langmuir pointed out the reason for the panel. He was in charge of polio surveillance for the U.S. Public Health Service, and had been an ardent proponent of the Salk vaccine even prior to the Francis report of 1955. In a symposium on polio in New Jersey the previous month, he had stated that a current resurgence of the disease, particularly the paralytic form, provides "cause for immediate concern" and that the upward polio trend in the United States during the past 2 years (1958 and 1959) "has been a sobering experience for overenthusiastic health officers and epidemiologists alike."

Dr. Ratner pointed out that "Prior to the introduction of the Salk vaccine, the National Foundation defined an epidemic as 20 or more cases of polio per year per 100,000 population. On this basis there were many epidemics throughout the United States yearly." After its introduction, a community was considered to have an epidemic when it had 35 cases of polio per year per 100,000 population. No reason is given for changing the rules. But in a community that before Salk vaccine release and by the old rules (of 20 per 100,000) would attract headline attention because of an "epidemic" could have the same number and more cases after 1955, and not a word woulld be printed. Indeed, there were less "epidemics" after the introduction of the Salk vaccine in 1955. But it was because they had changed the definition of an epidemic. It was not a real, but a semantic elimination of epidemics. It is no wonder that some physicians who remained skeptical about the original theories behind the vaccine, became increasingly bold in exposing the fallacies used in its evaluation.

Dr. Bernard Greenberg, the panel's statistician states: "as such (a statistician), my primary concern, my only concern, is the very misleading way that most of this data (on the Salk vaccine) has been handled from a statistical point of view."

He deals a devastating blow to the arguments of the Public Health Service that the increase in paralytic polio for 1958 and 1959 could be blamed on those who refused to be vaccinated (about 49 percent of the American population). Professor Greenberg is head of the Department of Biostatistics of the University of North Carolina School of Public Health and former chairman of the Committee on Evaluation and Standards of the American Public Health Association. Follow carefully his excellent argument, for it is a sound rebuttal against the need for the mass vaccination bill, H.R. 10541.

Dr. Bernard Greenberg: "There has been a rise during the past 2 years in the incidence rates of paralytic poliomyelitis in the United States. The

rate in 1958 was about 50 percent higher than that for 1957, and in 1959 about 80 percent higher than in 1958. If 1959 is compared with the low year of 1957, the increase is about 170 percent. At the same time, the rates for nonparalytic polio have been declining in relation to the 1957 base.

"As a result of this trend in paralytic poliomyelitis, various officials in the Public Health Service, official health agencies, and one large voluntary health organization have been utilizing the press, radio, television, and other media to sound an alarm bell in a heroic effort to persuade more Americans to take advantage of the vaccination procedures available to them. * * *

"One of the most obvious pieces of misinformation being delivered to the American public is that the 50-percent rise in paralytic poliomyelitis in 1958 and the real accelerated increase in 1959 have been caused by persons failing to be vaccinated. This represents a certain amount of doubletalk and an unwillingness to face facts and to evaluate the true effectiveness of the Salk vaccine. It is doubletalk from the standpoint of logical reasoning: If the Salk vaccine is to take credit for the decline from 1955 to 1957, how can those individuals who were vaccinated several years ago contribute to the increase in 1958 and 1959? Are not these persons still vaccinated?

"The number of persons over 2 years of age in 1960 who have not been vaccinated cannot be more, and must be considerably less, than the number who had no vaccination in 1957. Yet a recent Associated Press release to warn about the impending threat referred to the idea that the 'main reason is that millions of children and adults have never ever been vaccinated.' If they were never vaccinated, undoubtedly many more than were reported were unvaccinated during 1955, 1956, and 1957 when the same officials were claiming that the reduction in rates was due to the vaccine. * * *

"A scientific examination of the data, and the manner in which the data were manipulated, will reveal that the true effectiveness of the present Salk vaccine is unknown and greatly overrated."

Dr. Greenberg further reveals two instances where the PHS revealed bias in faulty statistical manipulations in the poliomyelitis surveillance unit study. The PSU had reported about 80 percent effectiveness in North Carolina for a single shot when in fact one dose was practically ineffective.

But the most incredible discovery is a change in the rules by changing the definition of "paralytic poliomyelitis" before and after the 1955 introduction of the Salk vaccine. It is like comparing a sneeze and pneumonia. "Prior to 1954," Joan Beck, in reporting this same panel in the Chicago Sunday Tribune (Mar. 5, 1961), observes, "any physician who reported a case of paralytic poliomyelitis was doing his patient a favor because funds were available to help pay his medical expenses (from a large voluntary health organization). At that time most health departments used a definition of paralytic poliomyelitis which specified "partial or complete paralysis of one or more muscle groups, detected on two examinations at least 24 hours apart." Laboratory confirmation and the presence of residual paralysis were not required.

"In 1955, these criteria were changed. Now, unless there is paralysis lasting at least 60 days after the onset of the disease, it is not diagnosed as paralytic polio.

"During this period, too, Coxsackie virus infections and aseptic meningitis have been distinguished from paralytic poliomyeltis," explained Dr. Greenberg. "Prior to 1954, large numbers of these cases undoubtedly were mislabeled as paralytic polio."

One cannot expect these startling facts to be kept under cover in America, no matter how strong the national desire to believe in the Salk vaccine. As I have indicated, the Chicago Sunday Tribune featured a three-page article by Joan Beck entitled "The Truth About the Polio Vaccines" (Mar. 5, 1961) which I have included in full in my written statement.

This was followed by "A Note on Polio" in the Saturday Review on April 1, 1961. I have included the note in full with its chart in my written statement, but a significant political tie-in is worthy of note here—I quote the Saturday Review:

"During the month of March 1961, the President of the United States, John F. Kennedy, announced that in the name of the American people he had authorized a gift of Salk 'killed virus' polio vaccine to the people of Cuba to fight a polio epidemic on that unhappy island.

"At least one physician who heard of the President's action wired the White House an immediate warning that the Salk vaccine is known to be ineffective in stopping the spread of a going epidemic.

"The warning wire pointed out that the Russian wooers of Cuba's Fidel Castro are well acquainted with the superior effectiveness of oral live vaccines (the Sabin vaccine is only one of three) developed in this country and used widely in the U.S.S.R. but not yet available here.

"It was after that wire was delivered that President Kennedy asked the Congress to appropriate special funds for a standby supply of oral live virus polio vaccine.

"Who gave the President the poor advice that led to the meaningless gift to Cuba?

"SR's science editor does not pretend to know. But normal routes of responsibility in such matters lead to the U.S. Public Health Service, which, along with the National Foundation for Infantile Paralysis, has been pushing the Salk vaccine.

"Around the same time that the President was being taken off balance, the Journal of the American Medical Association published, in answer to a doctor-reader's question, a statement by Dr. Herbert Ratner, public health officer of Oak Park, Ill. (largest village in the world), that "it is now recognized that much of the Salk vaccine used in the United States has been worthless. * * * because it is an unstandardized product of an unstandarized process."

It should be observed here that H.R. 10541 is an amendment to sec. 2, part B, of title III of the Public Health Service Act, and we assume would be administered by the PHS. A subsequent issue of the AMA Journal carried a series of articles by three U.S. Public Health officials admitting that the Salk vaccine's value had been greatly overestimated, but still insisting that it was highly effective. Now we are faced with the possibility that it causes cancer. In the Chicago Sun-Times, Monday, April 16, 1962, there is an article by Earl Ubell on SV–40, a newly discovered "something" in Salk vaccine. The article contains this conjecture:

"Conjecture No. 1: SV–40 may cause cancer in human beings. This, of course, is the most frightening idea. Millions of persons have received Salk injections (killing the polio virus does not mean killing SV–40).

"Now the latest work shows that SV–40 can grow in the tissue of human beings and can make cells grow faster. But many viruses can do this without causing cancer. However, the report on the chromosomes makes the cancer possibility somewhat stronger."

Now the purpose of the NHF in reading this testimony into the record is not, we again emphasize, that we are opposed to vaccination, and certainly not to the Salk vaccine as singled out from the others. As strong a case can be made against the oral vaccines (there are now three), and the vaccines used for diphtheria, whooping cough, and tetanus, the other three specific concerns of the bill. We simply want to be sure there is a clear understanding that there is far from unanimity of thought in America on the subject even among those who believe in the principle of vaccination. To rush through H.R. 10541 without fully amending it to allow no whisper of force or coercion to be exercised against those who might oppose the particlar vaccination approach chosen would be less than wise.

Here we wish to point out that in local and State laws, it has been customary to allow those who have contrary religious convictions to be allowed to refrain from participation in otherwise compulsory vaccination programs. We believe that this protection (of religious conscience) should be included in any legislation on vaccination, but further, that it should clearly specify that a person can refuse vaccination if it is contrary to his beliefs. They do not have to be religious.

We are aware that there is no provision for complusion in H.R. 10541, but the phrases "intensive community vaccination programs (p. 2, lines 3, 10, 19, etc.), and "the immunization over the period of the program of all, or practically all" (p. 3, lines 7, 8, and 9), and especially, "and which includes plans and measures looking toward the strengthening of ongoing community programs for the immunization of infants and for the maintenance of immunity in the remainder of the population" (p. 3, lines 10 and 14), raises questions of compulsion. Many "ongoing community programs have compulsory requirements, often tied into registration for public schools. This would be a possible place for the insertion of the amendment "provided that any person may refuse vaccination for themselves, their children, or wards if it is contrary to their belief, which includes, but is not restricted or limited to, religious belief."

If, in the light of all the testimony given to this committee, it is decided by the majority that the bill is desirable, we most strongly urge that this guarantee of freedom be included as an amendment.

We further urge that no money be granted to support an "ongoing community program" unless that local program carries the protection of this freedom-of-conscience amendment.

People feel very deeply about their religion, health, and politics, and should have freedom under the law from compulsion in these fields, so long as by the exercise of this freedom they don't endanger the health of others and thereby deny them an equal freedom. Clearly, a demand for protection against force or compulsion to participate in mass vaccination programs does not deny any citizen an equal right to participate in them nor the protection that such participation provides.

THE QUESTION OF SIDE EFFECTS OF SERA AND VACCINES

At this point in my written statement, I have included seven pages from the book "Side Effects of Drugs" compiled by L. Meyler, M.D. This reports on the unwanted effects of drugs, sera, and vaccines, as reported in the medical literature of the world during the period 1958–60. It was published in 1960 by the Excerpta Medica Foundation, Amsterdam, London, and New York. We have reprinted pages 194–200.

The bill does not concern itself with the matter of side effects of vaccines. It assumes that there is either a broad general knowledge among the public of this ugly, dangerous (and sometimes fatal) side effect of vaccination, or else that such information is not needed or wanted by the mass of U.S. citizens to be vaccinated. We disagree with either assumption. We insist that the American public have the right and the intelligence to evaluate the good with the bad of any vaccination program. They should be fully informed of the expectations, limitations, and most certainly the side effects of vaccination. The critic of the program should have the same right to file a "minority report" which should accompany press releases lauding the efficiency and stressing the urgency of any particular vaccination program. This should be a built-in safeguard of check and balance in medical experiments with mass populations. There is no more validity here for the argument that "this is a matter for the experts" than there is in the field of politics. After all, in politics we are concerned with a possible loss of freedom, and in vaccination programs with loss of life or health. There are some cures that are worse than the disease.

Consider the following from page 197 of Dr. Meyler's book:

"Pertussis vaccine (whooping cough). Up to now some 100 cases of encephalitis have been reported. In half of the cases, the phenomena set in within 6 hours after the injection, and never later than 72 hours. About half of the patients made a complete recovery, about one-third had serious permanent neurological lesions, and about one-sixth died. The increased susceptibility to poliomyelitis is stressed. The value of pertussis immunization is stressed, but so is the grave danger of further inoculations when a previous one has produced any suggestion of a neurological reaction.

"On account of the risk of encephalitis, it is advised not to vaccinate children if epilepsy, seizures, encephalitis, or mental disorders have occurred in their family history. If the child has had an infectious disease, the vaccination should be postponed until 4 months afterward. Children who have recently been vaccinated against variola or polio should not be vaccinated. During an epidemic of poliomyelitis, no vaccinations should be given."

Here it should be noted that maybe there is room for a congressional investigation into the problem of reporting epidemics. Is a polio epidemic 20 cases per 100,000 or is it 35 cases per 100,000? Who decides upon what evidence what constitutes an epidemic? Was importance of polio epidemic knowledge to parents about to consider whooping cough vaccinations taken into consideration when the rule was changed in 1955? Does the change in the rule of reporting polio epidemics present a hazard to children planning whooping cough vaccination because epidemics that were epidemics in 1954 are not now reported as epidemics in 1962? To what degree are other vaccinations contraindicated during polio epidemics?

On page 198, Dr. L. Meyler reports:

"Diphtheria vaccine: A 1½-year-old child became severely ill after the second injection and died in coma 4 days afterward. The first injection had not produced any signs."

In mass vaccination programs it is common practice to omit or ignore such information in presenting the case for vaccination to the public. There is a tendency to let the "experts" make the decisions, after which they summarize the evidence with such press release statements as "absolutely safe," and other statements designed not to educate, but to inspire absolute confidence.

We point out that the tendency of a mass vaccination program is to herd people. People are not cattle or sheep. They should not be herded. A mass vaccination program carries a built-in temptation to oversimplify the problem; to exaggerate the benefits; to minimize or completely ignore the hazards; to discourage or silence scholarly, thoughtful, and cautious opposition; to create an urgency where none exists; to whip up an enthusiasm among citizens that can carry with it the seeds of impatience, if not intolerance; to extend the concept of the police power of the state in quarantine far beyond its proper limitation; to assume simplicity when there is actually great complexity; to continue support of a vaccine long after it has been discredited; to make a choice between two or more equally good vaccines and promote one at the expense of the other; and to ridicule honest and informed dissent.

President Kennedy, in the state of the Union message January 30, 1961, said: "Let it be clear that this administration recognizes the value of daring and dissent—that we greet healthy controversy as the hallmark of healthy change."

A bill such as H.R. 10541 without amendment safeguards could well discourage what little "healthy controversy" still exists in the field of vaccination.

John Stuart Mill has said: "It often happens that the universal belief of one age—a belief from which no one was free, nor without an extraordinary effort of genius could, at that time, be free—becomes to a subsequent age so palpable an absurdity that the only difficulty is to imagine how such a thing can ever have appeared credible."

It is conceivable that a future age may disdainfully look at our preoccupation with vaccination. Indeed, the entire concept may be replaced with another approach. In such an eventuality, it would record as statesmen or tyrants the lawmakers who protected or trampled the rights of those who opposed the concept for one reason or another in this age.

I submitted or will submit with this summary, to the clerk of the committee, the following articles or abstracts of articles or books which I respectfully request be inserted into the record of this committee hearing:

1. A letter to the editor by Dr. Herbert Ratner, M.D., to the Journal of the American Medical Association, January 21, 1956, volume 160, No. 3, pages 231 and 232.

2. Part I and part II of an article, "The Present Status of Polio Vaccines," a panel discussion reprinted from the Illinois Medical Journal, volume 118, No. 2, August 2, 1960, and volume 118, No. 3, September 1960.

3. Bibliography and notes on the article "The Present Status of Polio Vaccines," Illinois Medical Journal, prepared by Dr. Herbert Ratner, M.D.[1]

4. An answer to a doctor-reader question by Dr. Herbert Ratner in the Journal of the American Medical Association.

5. A three-page article in the Chicago Tribune magazine, March 5, 1961, by Joan Beck, entitled "The Truth About the Polio Vaccines."

6. "A Note on Polio," with chart, from April 1, 1961, issue of Saturday Review.

7. An article, "Polio Vaccine Virus Puzzles Scientists," from the Chicago Sun Times, April 16, 1962.

8. Pages 194 to 200 (ch. XXVI), "Sera and Vaccines," from "Side Effects of Drugs," compiled by Dr. L. Meyler, M.D., 1960.[1]

9. Pages 138 to 150 and pages 163 to 172 from "Who Is Your Doctor and Why?" by Dr. Alonzo J. Shadman, M.D., House of Edinboro, Boston, 1958, Library of Congress catalog card No. 58-10390. This briefly explains the homeopathic medical doctor's approach to vaccination and polio.[1]

10. A booklet, "Diet Prevents Polio," by Dr. Benjamin P. Sandler, M.D.[1]

11. An article, "The Changing Incidence and Mortality of Infectious Disease in Relation to Changed Trends in Nutrition," by Dr. W. J. McCormick, M.D., Toronto, Canada.[1]

The CHAIRMAN. You may proceed to give a résumé of it.

Mr. MILLER. I appreciate this courtesy, Mr. Chairman, and in the interests of time, along with my statement I should like permission to

[1] In committee files.

include in the record the following abstracts or articles and one booklet which give different viewpoints on the vaccination question.

Specifically, I list a booklet on polio by Dr. Benjamin P. Sandler, selected pages on vaccination and polio by Dr. Alonzo J. Shadman, and an article by Dr. W. J. McCormick, M.D., of Toronto, Canada, and other articles and letters by Dr. Ratner, Dr. Meyer, et cetera, as I have listed on page 17 of my written report.

The CHAIRMAN. Very well. They may be included in the record. I note, however, that the reference to Dr. Sandler is in the form of a booklet. It has additional information, including certain tables. I don't believe we would be able to include the entire booklet in the record, but we will receive it for the files for the benefit of the committee.

Mr. MILLER. The reason I mentioned that particular booklet first, Mr. Chairman, is because of the unique nature of the testimony that it contains. The booklet is entitled "Diet Prevents Polio," and it is the burden of the author's thesis that a blood sugar level which can be controlled by the diet can prevent polio without any vaccination—he is not opposed to vaccination as he states in the book, but he presents his interesting theory that diet alone can render immunity to polio. And I feel that the entire book is necessary for the members of the committee who might wish to examine this rather unusual thesis.

The CHAIRMAN. It will be available for all members of the committee.

(The documents referred to follow:)

[Reprinted from the Journal of the American Medical Association, Jan. 21, 1956]

POLIOMYELITIS VACCINE

To the EDITOR:

During the week of November 14, 1955, at meetings of the American Public Health Association in Kasas City, the U.S. Public Health Service released two reports on poliomyelitis. One report on November 15 presented by Dr. Langmuir's group from the Poliomyelitis Surveillance Committee stressed the great effectiveness of one inoculation of the Salk vaccine used in 1955, namely, a 50- to 80-percent reduction in paralytic poliomyelitis. The other report on November 17, presented by Dr. Scheele, stressed the safety of the current Salk vaccine. The widespread national publicity that followed these reports naturally led the public and medical profession at large to believe that we now had a safe and highly effective vaccine. However, what was not made sufficiently clear in the reports and the press stories that covered the country was that the first report, stressing excellent effectiveness, referred to an earlier model of a Salk vaccine and that the second report, stressing current safety, referred to a later model. The effectiveness report on the earlier model was based on results achieved in children, the bulk of whom received vaccines that were manufactured prior to the development of the postinoculation poliomyelitis cases first reported on April 27. Such vaccines were admittedly the product of a process in which there were "fundamental weaknesses in the safety testing procedures" (Scheele, Aug. 25), which did not have the benefit of the more sensitive cortisone-treated monkey tests (formally required on September 10) and which did not have the advantage of crucial filtration procedures that followed the recognition of "the absolute need for removal of particles within which virus may be protected from inactivation by formaldehyde" (Scheele, Nov. 17).

There is substantial evidence (Bulletin of the American Association of Public Health Physicians, November 1955) indicating that manufacturers' vaccine, other than Cutter's, had varying amounts of live virus in it and that what is

being measured for effectiveness is not Salk's killed virus vaccine but a live virus vaccine labeled Salk—obviously powerful but also more dangerous. At any rate, it should be evident that the Salk vaccine, for which great effectiveness is claimed on the basis of one inoculation, is a product that is no longer on the market nor in the hands of physicians (we hope) and that was the product of an inadequate manufacturing process and inadequate and relatively less sensitive safety tests. The report on November 17, dealing with the current Salk vaccine's safety, is the interim report of the Public Health Service Technical Committee on Poliomyelitis Vaccine as published in the Journal, December 10, 1955. The publication of this report is intended to guide and to keep physicians informed of developments in the Salk vaccine program. The report itself has one striking peculiarity. Though it deals with dated decisions made at specific meetings held since May 26, not one single date is listed in the document. Not even is the date of the issuance of the interim report given. It is as if we are dealing with a timeless document that purports to give both active and retroactive reassurance.

Though the intention of this omission of dates is only knowable to the committee, the confusion leading from this omission is knowable to the reader. I will attempt to indicate the extent to which the report has been informative as to the nature of a safer Salk vaccine and, in the practical order, the extent to which his report adds to the current confusion. The summary highlights in the clarification of a safer Salk vaccine are as follows: (1) "the absolute need for * * * suitably spaced filtration procedures" (this provision made its first appearance in the minimal requirements as amended November 11, 1955) and (2) "a safety-test program * * * strengthened by improving sampling procedures * * * and by increasing the sensitivity of the monkey safety tests" (the test utilizing the cortisone-treated monkey made its first appearance in the minimum requirements as amended on September 10, and as reamended on November 11).

However, is this the vaccine that is in the hands of physicians and health departments? The interim report itself and the statement of Dr. Scheele, reported in Washington News in the Journal, December 3, leads us to believe that it is. In the latter news story, it is stated that "production of the Salk poliomyelitis vaccine, which has been lagging * * * will start picking up sometime in December and probably will reach a normal rate by February. Reason for the lag * * * is the major changes made last May in vaccine production and testing requirements and the continuing refinements since that date * * * [the] modifications were incorporated formally into minimum standards for producing and testing the vaccine on November 11 * * *."

However, it should be clear that the new requirements of last May subsequently resulted in steady production throughout the summer and did not cause the delay in the late fall production referred to above. It should also be remembered, as confirmatory, that in May it was recognized that the new requirements would only halt vaccine production temporarily. Therefore, the delay in production seems to be associated with the minimum requirements amended November 11. In an attempt to confirm this and to discover whether the vaccine in my possession (vaccine with an expiration date of April 6 and 7) conformed to the November 11 minimum requirements for safe production, inquiry was made of the manufacturer, a manufacturer who incidentally happens to be at present the leading producer of the Salk vaccine. The answer was disquieting. Not only did the vaccine in my possession not conform to the November 11 requirements but the more than 1 million cubic centimeters of vaccine issued by the same manufacturer the week of December 12 also did not conform to the November 11 requirements, insofar as it excluded a crucial filtration step required during the inactivation process. Furthermore, the manufacturer's representative stated that no such vaccine can be expected from them, and presumably other companies, until the end of January, though in the meantime they would continue to release vaccine already in process not conforming to these requirements.

The Salk vaccine, then, which we were encouraged to believe is both highly effective and safe on the basis of recent reports, turns out to be, when highly effective, a vaccine that is no longer on the market and, when safe, a vaccine that has yet to make its appearance and clinically prove its effectiveness. Yet, in the face of this paradox, the public is being urged from all directions, except

that of the practicing physician, to get their inoculations immediately. This, in spite of the fact that there is a shortage of vaccine and that the vaccine available is inferior if not obsolete. To complete the picture, other things should be said. All physicians hope and pray that we now have a safe and effective vaccine. This hope, however, should not rob us of our objective and critical faculties. When we have a safe and effective vaccine, we want to know it and not base it on slender, infirm, and contradictory criteria.

Categorically, the following remarks can be said, and I again refer the reader for further amplification to the Bulletin of the American Association of Public Health Physicians: 1. The epidemiological techniques of the poliomyelitis surveillance unit for the determination of clinical safety of the vaccine have proved and remain inadquate. This is highlighted in part by the U.S. Public Health Service in their finding of live virus in a seventh lot of Cutter vaccine, which previously was exonerated on epidemiological grounds. 2. The reporting of poliomyelitis cases associated with the vaccine has proved to be incomplete. The fact that poliomyelitis surveillance unit has dropped the reporting of crucial satellite cases is a case in point. 3. The fact that millions of children have been inoculated without overt and obvious harm is not a criterion for the safety of the vaccine. To begin with, even when a readily detectable live virus Salk vaccine was used in Idaho, only 1 out of over 1,600 children came down with poliomyelitis. This means that had the 7 million children, estimated to have received their first shot in the National Foundation for Infantile Paralysis program, been inoculated with a readily detectable live virus Salk vaccine, 6,996,000 would not have come down with poliomyelitis anyway. The careful surveillance that is necessary to assess safety in a vaccine with lesser amounts of live virus is obvious.

The Idaho data simply confirms the fact that poliomyelitis is a low-incidence disease and that there is a high degree of acquired immunity and many natural factors preventing the occurrence of the disease (as contrasted to an "infection") in the Nation at large. In Salk vaccines with lesser amounts of live virus, the crux of the danger lies in the production of carrier states and the development of satellite cases, which the U.S. Public Health Service has not been surveying since the middle of the summer and which were incompletely surveyed prior to this period. 4. Everyone should recognize that 1955 was a low poliomyelitis year independently of the use of the Salk vaccine, which was only given to 9 million children. The slight contribution that an unsafe Salk vaccine may have made to the reduction of paralytic poliomyelitis in 1955 is counterbalanced by the known contribution it made to the increase in paralytic poliomyelitis in 1955. 5. Physicians should recognize one peculiar aspect of the experts' recent decision to stick to a three-shot schedule for some for 1956 protection rather than one shot for many. Logic would dictate that, with the shortage of vaccine, it is better to have a 50- to 80-percent reduction of paralytic poliomyelitis in three times the number of people than to have an additional 20- to 50-percent protection in one-third the number. Presumably, experts are not convinced of the rough studies proving a high degree of effectiveness after one injection of the transferability of these statistics based on a replaced and suspect vaccine. 6. The medical profession should recall, in the light of the findings pertaining to safety in the interim report, that during the summer the promoters of the vaccine continued to urge mass inoculations in spite of recognized ignorance on their part. They were in the dark as to what had gone wrong with the Cutter vaccine, which had passed all established safety tests existing at the time. They also urged mass inoculation despite the fact that one of the two major producers of the vaccine since the field trials of 1954 had begun to find live virus in the vaccine back in May, by using testing procedures more stringent than those required by the Government, the reasons for which were unknown to the pharmaceutical house and the Government. Neither the public nor the medical profession was informed of these justified uncertainties, nor is it certain that we are yet being adequately informed. 7. Finally, we should recognize that only one side of the ledger is being presented by the promoters of this vaccine. The price that has been paid and the risks that have been taken for the dubious results that have been obtained are not mentioned. The price that we have paid, and are continuing to pay, goes far beyond those known vaccinated children who have come down with poliomyelitis.

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The Present Status of Polio Vaccines

(Presented before the Section on Preventive Medicine and Public Health at the 120th annual meeting of the ISMS in Chicago, May 26, 1960.)

[Note.—This panel discussion was edited from a transcript. Opinions presented are those of the panel members and do not necessarily represent those of the society]

Moderator: Herbert Ratner, M.D., director of public health, Oak Park, and associate clinical professor of preventive medicine and public health, Stritch School of Medicine, Chicago.

Panelists: Herald R. Cox, Sc. D., Pearl River, N.Y.; Bernard G. Greenberg, Ph. D., Chapel Hill, N.C.; Herman Kleinman, M.D., Minneapolis; Paul Meier, Ph. D., Chicago.

PART I[1]

Dr. Herbert Ratner. In this panel we are first going to discuss the Salk vaccine, later the live virus vaccine. None of us have any commitments or allegiances except to the truth. Dr. Cox, of course, is from a pharmaceutical house, but he is not here to sell you his vaccine. He happens to be one of the world's leading authorities on live virus vaccines, as well as killed vaccines. His reputation for integrity is exceptional and unchallenged. He has devoted 14 years to the development of the live polio virus vaccine specifically. He is here to share his knowledge with you. You will have full freedom to question and to dispute. Dr. Cox is director of virus research at Lederle, and is at present, president elect of the Society of American Bacteriologists.

Dr. Kleinman is an epidemiologist from the Minnesota Department of Health. He is intimately connected with that department's pioneering field studies on Cox live polio virus vaccine. Yesterday, he landed from Russia, where he was an official delegate of the U.S. Public Health Service at a conference on polio virus vaccines. He was coauthor in 1957 with Dr. Leonard Schuman of a paper entitled, "The Efficacy of Polimyelitis Vaccine with Special Reference to Its Use in Minnesota 1955–1956," wherein they concluded that "analysis has revealed (that) the use of two doses of Salk poliomyelitis vaccine * * * (was) 83 percent protective against paralytic poliomyelitis."

Professor Meier is a biostatistician from the University of Chicago. In the field of polio, he is best known for his analysis "Safety Testing of Poliomyelitis Vaccine" (Science, May 31, 1957), which suggested that a searching study of the entire Salk vaccine program by an appropriate body be conducted. Despite the attempt of the editors to initiate a debate on the crucial issue of safety testing, proponents of Salk vaccine remained silent.

Professor Greenberg is head of the department of biostatistics of the University of North Carolina School of Public Health and former chairman of the Committee on Evaluation and Standards of the American Public Health Association. In the past he has presented several papers on methodologic problems in the determination of the efficacy of the Salk vaccine.

The reason for this panel on the present status of polio vaccines is best expressed by a quote from Dr. Alexander Langmuir. He is in charge of polio surveillance for the USPHS, and has been an ardent proponent of the Salk vaccine even prior to the Francis report of 1955. In a symposium on polio in New Jersey last month he stated that a current resurgence of the disease, particularly the paralytic form, provides "cause for immediate concern" and that the upward polio trend in the United States during the past 2 years

[1] Reprinted from Illinois Medical Journal, August 1960.

"has been a sobering experience for overenthusiastic health officers and epidemiologists alike."

In the fall of 1955 Dr. Langmuir had predicted that by 1957 there would be less than 100 cases of paralytic polio in the United States. As you know, 4 years and 300 million doses of Salk vaccine later, we had in 1959 approximately 6,000 cases of paralytic polio, 1,000 of which were in persons who had received 3, 4, and more shorts of the Salk vaccine. So you see, expectancy of the Salk vaccine has not lived up to actuality, and Dr. Langmuir was right when he said the figures of 1959 were sobering.

In preparation for the discussion, it was thought best to review some basic facts of polio: incidence, natural history, the disease, and immunity, all important to the understanding of the vaccine problem. Table 1 presents current data on incindence of paralytic polio. Figure 1 presents the natural variations in incidence of polio and infectious hepatitis. Both diseases were in a natural decline when the Salk vaccine was introduced in 1955. Since the wide acceptance of the Salk vaccine was based primarily on the sharp decline in polio incidence, it is important to keep in mind that infectious hepatitis equally declined following the Salk vaccine.

Figure 2 shows what the incindence of paralytic polio would have been from 1951 through 1959 if the figures were corrected for the radical changes in diagnostic criteria since the introduction of the Salk vaccine. Dr. Greenberg will discuss some of these changes later. The solid columns in figure 2 represent a conservative estimate of what the incidence of paralytic polio would have been in former years if the diagnostic criteria of 1959 had been used. This permits a more accurate comparison. It also helps us evaluate the progress or lack of progress made since the introduction of the Salk vaccine.

TABLE 1.—*Paralytic polio cases in the United States in 1957, 1958, 1959, including paralytic polio cases in Salk vaccines*

	Total	Increase over 1957 (percent)	Salk vaccinated			
			1 or more doses	3 doses	4 doses	3 or more doses
1957	[1] 2,158	----------	[2] 658	----------	----------	[2] 206
1958	[1] 3,122	45	[3] 571	[3] 237	[3] 10	[3] 247
1959	[1] 5,694	164	[4] 1,870	[4] 750	[4] 178	[4] 928

[1] National Office of Vital Statistics figures: Morbidity and Mortality, USPHS vol. 8, No. 52, Jan. 8, 1960.

[2] Polio surveillance figures: Thrupp, Lauri D., et al.: Poliomyelitis in the United States, 1957. Public Health Reports 74:535–545, June 1959.

[3] Polio surveillance figures: Polio Surveillance Unit Report No. 160, Dec. 5, 1958. These figures are only through Nov. 20, 1958. Also omitted are cases of paralytic polio among 179 cases for which age and/or vaccination status are unknown. The true figures are higher.

[4] Polio surveillance figures: Polio Surveillance Report No. 197, May 16, 1960.

NOTE.—These figures do not include cases of paralytic polio among 237 cases for which PSU did not receive any separate reports, in 184 cases in which the vaccine status was unknown, and in an unknown number of cases whose original diagnosis was changed as a result of "a 60-day followup report which included a verification of the diagnosis, (and) an estimate of the severity of residual paralysis." "The paralytic category [now] includes 4,783 cases with residual paralysis at 60 days plus 689 cases with a preliminary diagnosis of paralytic poliomyelitis for which no followup data were received." That the switch from paralytic cases to nonparalytic cases on the basis of the absence of residual paralysis in those with 3 or 4 doses of Salk vaccine is considerable may be gathered by comparing the final report on 1959 (Report 197), which includes followup data through Feb. 29, 1960, with the preliminary report in an earlier PSU Report No. 193, which includes followup data through Jan. 11, 1960. This should be understood in the light of Dr. Langmuir's remark to State epidemiologist in his letter of Sept. 29, 1959, that, "In the final analysis, even a small number of corrections may make crucial differences in the evaluation of effectiveness of vaccine. A revoked diagnosis or a switch of diagnosis from paralytic to nonparalytic, or vice versa, in only 5 to 10 percent of cases could change basic conclusions remarkably."

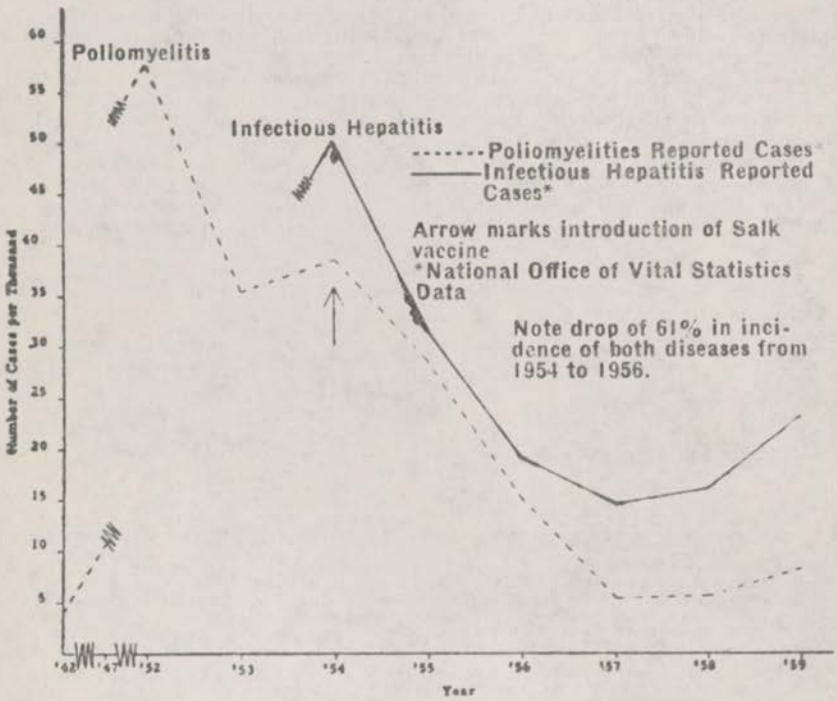

FIGURE 1.—The natural rise and fall of two diseases, poliomyelitis 1942–59, infectious hepatitis, 1949–59.

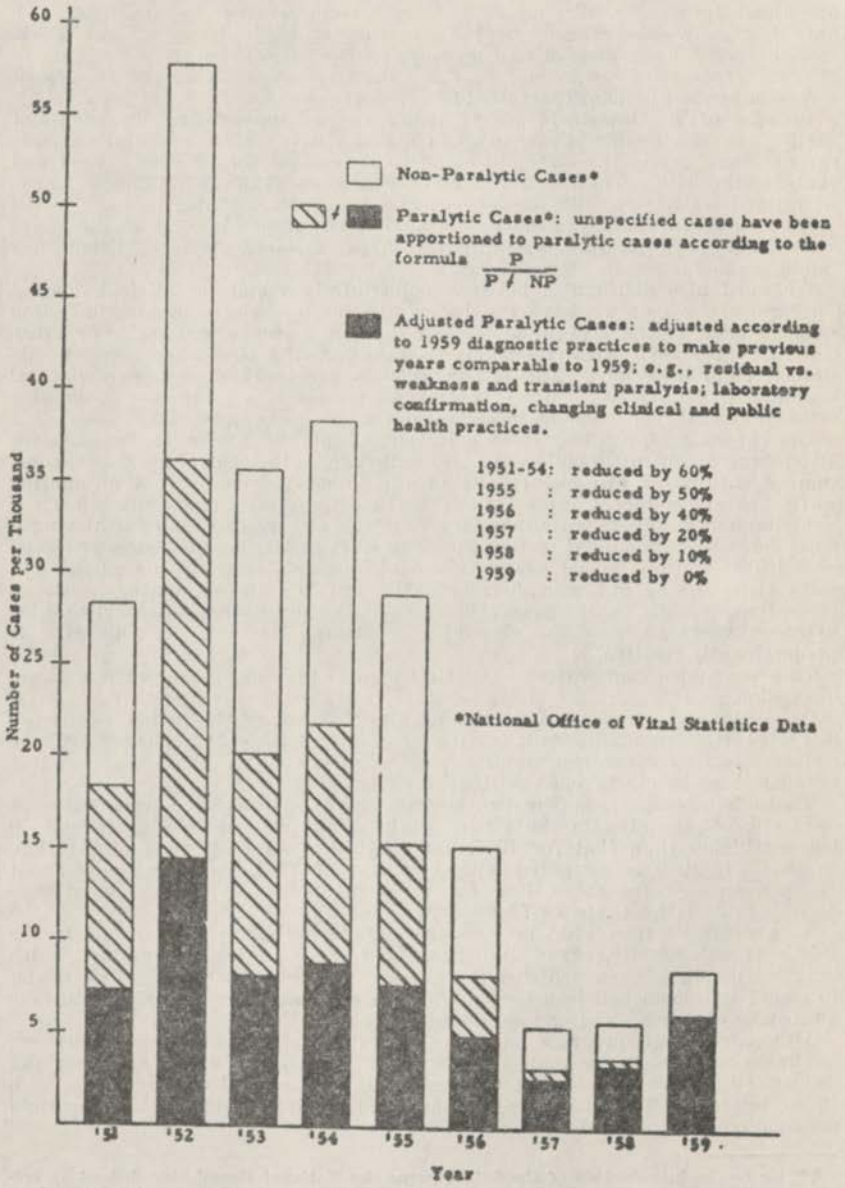

FIGURE 2.—Comparison of the incidence of poliomyelitis, total cases 1951–59.

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The low incidence of the disease also complicates evaluation of a vaccine. Presently, a community is considered to have an epidemic when it has 35 cases of polio per year per 100,000 population.[2] In Oak Park with a population of 61,000, 21 or more cases constitutes an epidemic. Since Oak Park has about 500 blocks, this means 1 case of polio per year to 25 blocks. We have had only one epidemic of polio in the recorded history of Oak Park. In a high incidence disease like measles, on the other hand, it is common to have 21 cases in a single block. The difficulty in evaluating the efficacy of a vaccine against polio as contrasted to measles is obvious.

Because of the low incidence of polio, neither the private physician nor the local public health physician is in a position to judge the value of polio vaccine from personal experience alone. One central source must collect and evaluate the data. The result will be only as good as the thoroughness, objectivity, and statistical skills of the central source. Part of the difficulty in the evaluation of the Salk vaccine has been that the responsible authorities have not refined the techniques for evaluating high incidence diseases so that they can be applied to low incidence diseases.

We must also distinguish between polio infection and the clinical disease. Tuberculosis, where we have the tuberculin reactor which signifies infection as contrasted to the reportable clinical disease, is the prototype. For every one case of known paralytic polio we have about a thousand cases of subclinical polio infections. The latter accounts for the high degree of natural immunity in adults. Crucial to the understanding of the contemporary vaccine problem is that you can get infection of the gut with or without disease.

The theory of the killed vaccine is that circulating antibodies in sufficient amounts will neutralize polio virus before it reaches the central nervous system. One of the major disappointments of the killed vaccine is that circulating antibodies alone do not protect against alimentary infection. Only when the local immunity follows an alimentary infection are we capable of achieving a more consistent immunity against the disease. Circulating antibodies produced by a killed vaccine do not prevent the multiplication of enormous numbers of polio virus in the gut, nor their breakthrough into the circulatory systems. Protection depends on the presence of circulating antibodies in sufficient titer to offset virus entering the circulatory systems. Immunity of this type is predominantly relative.

This concludes our review. Dr. Greenberg will launch us into our panel discussion.

Dr. Bernard Greenberg. I agreed, as a participant of this panel, to discuss the present status of the Salk vaccine as a statistician. As such, my primary concern, my only concern, is the very misleading way that most of this data has been handled from a statistical point of view.

There has been a rise during the past 2 years in the incidence rates of paralytic poliomyelitis in the United States. The rate in 1958 was about 50 percent higher than that for 1957, and in 1959 about 80 percent higher than in 1958. If 1959 is compared with low year of 1957, the increase is about 170 percent. At the same time, the rates for nonparalytic polio have been declining in relation to the 1957 base.

As a result of this trend in paralytic poliomyelitis, various officials in the Public Health Service, official health agencies, and one large voluntary health organization have been utilizing the press, radio, television, and other media to sound an alarm bell in a heroic effort to persuade more Americans to take advantage of the vaccination procedures available to them.

Although such a program might be desirable until live virus vaccines are available to us on more than an experimental basis, the misinformation and unjustified conclusions about the cause of this rise in incidence give concern to those interested in a sound program based on logic and fact rather than personal opinion and prejudice.

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[2] Prior to the introduction of the Salk vaccine the National Foundation defined an epidemic as 20 or more cases of polio per year per 100,000 population. On this basis there were many epidemics throughout the United States yearly. The present higher rate has resulted in not a real, but a semantic elimination of epidemics.

One of the most obvious pieces of misinformation being delivered to the American public is that the 50-percent rise in paralytic poliomyelitis in 1958 and the real accelerated increase in 1959 have been caused by persons failing to be vaccinated. This represents a certain amount of "doubletalk" and an unwillingness to face facts and to evaluate the true effectiveness of the Salk vaccine. It is doubletalk from the standpoint of logical reasoning: If the Salk vaccine is to take credit for the decline from 1955 to 1957, how can those individuals who were vaccinated several years ago contribute to the increase in 1958 and 1959? Are not these persons still vaccinated?

The number of persons over 2 years of age in 1960 who have not been vaccinated cannot be more, and must be considerably less, than the number who had no vaccination in 1957. Yet, a recent Associated Press release to warn about the impending threat referred to the idea that the "main reason is that millions of children and adults have never been vaccinated." If they were never vaccinated, undoubtedly many more than were reported were unvaccinated during 1955, 1956, and 1957 when the same officials were claiming that reduction in rates was due to the vaccine.

Could it be that the vaccine has been only a temporary stopgap and that the effect is now wearing off because the vaccinated individuals are not maintaining their antibody status through subclinical exposures and booster doses?

One cannot answer this question in the negative with real assurance because such a possibility is certainly a real one. The reduction of antibody titer with time is well documented and may explain why some individuals vaccinated 5 years ago have lost their immunization status. On the other hand, officials urging vaccination have taken the stand that the rate increased because large segments of the American population, about 49 percent, have had no vaccine at all.

A scientific examination of the data, and the manner in which the data were manipulated, will reveal that the true effectiveness of the present Salk vaccine is unknown and greatly overrated.

The remainder of this paper documents this statement.

EFFECTIVENESS OF SALK VACCINE

All here will remember that the field trials in 1954 showed that the vaccine used was 72 percent effective in preventing paralytic poliomyelitis within 1 year, but completely ineffective in preventing nonparalytic poliomyelitis. It must be remembered that these figures apply to the vaccine used in 1954, and, therefore, all the Francis report really tells us is that the Salk vaccine of 1954 was 72 percent effective in preventing paralytic poliomyelitis for that one season.

For the 1955 vaccine, certain changes in the manufacture and testing for safety were introduced. The vaccine did not contain merthiolate as did the 1954 product. Live viruses were found in several lots, and the foundation of Salk's theory of inactivation was questioned. We were alarmed by the variation in antigenic potency of different lots from different manufacturers especially for a product that was to be administered on a mass basis. The Cutter incident and the white paper are clearly remembered by those of us who, at that time, questioned the wisdom of the program as it was being conducted. To insure "absolute safety," an extra filtration step was introduced in November 1955. Perhaps Dr. Cox will comment on what this extra filtration step may do to the antigenic potency of the vaccine.

The result of that change, as well as the preceding ones, upon the effectiveness of the present vaccine is unknown. At that very time—November 1955—the Poliomyelitis Surveillance Unit of the Communicable Disease Center published a paper which purported to show that in 1955 the vaccine was still as effective as in 1954. In fact, a report from that unit on December 7, 1955, went so far as to claim that a single inoculation of the vaccine was about 78 percent effective in preventing paralytic poliomyelitis.

In care and precision, the method of study in this Public Health Service report was not at all comparable to that of the field trials of 1954. There were no controls, the data were retrospective, and there were no rigid diagnostic criteria that could be supervised on a national basis. The claim that one inoculation was 78 percent effective was too much for anyone to accept.

We were able, fortunately, to conduct a more intensive study in North Carolina, but it was subject to the same limitations of no real controls, and of retrospective design. Our purpose was simply to learn the magnitude of the

bias introduced by faulty statistical manipulations in the Poliomyelitis Surveillance Unit study. We found that one dose was practically ineffective and two doses would produce a figure of only about 60 percent reduction among children 5 to 9 years old. The Poliomyelitis Surveillance Unit study had reported about 80 percent effectiveness in North Carolina for a single shot. Why this discrepancy of figures in the two studies?

In a paper on the results of our study delivered before the Biometric Society and Institute of Mathematical Statistics in April 1956, I pointed out that the discrepancy was purely a statistical one. There were two biases in the way the Public Health Service had calculated its rates of attack among the vaccinated and the unvaccinated.

First of all, the unvaccinated population figure for 5- to 9-year-old children used in the Public Health Service report was the number given in the 1950 census minus the number of children vaccinated. The number of children aged 5 to 9 in 1955 was estimated, however, to be 101,000 more than it was in 1950. The Public Health Service did not take this increase into account. The omission of 101,000 children from the unvaccinated population would have increased the latter roughly from 236,000 to 337,000 children. Hence, the attack rate for unvaccinated children was overestimated by about 40 percent.

The second bias in the way the Public Health Service had calculated rates involved the period of exposure for the vaccinated children. As the children were vaccinated each month, they were transferred to the vaccinated group piecemeal. Before children can be moved to the vaccinated status, however, one must consider the length of time they remained in the nonvaccinated group before transference. In the adjustment process, the seasonal incidence of the disease also must be considered. To obtain correct estimates of the population who had "one and only one" inoculation of vaccine, this adjustment process must be used, not only to transfer first vaccinees into that group, but also to transfer out those children who obtained second inoculations. Failure to do so by the Public Health Service accounted for the remainder of bias between the two studies. Hence, as far back as 1955 and before the extra filtration step was introduced, the question of whether the Salk vaccine was really as effective as it was in 1954 could not be answered.

REASONS FOR RECENT INCREASE

If the vaccine was not as effective, one might wonder why the tremendous reduction occurred in the 1955, 1956, and 1957 reported rates. Here, again, much of this reduction was a statistical artifact.

Prior to 1954 any physician who reported paralytic poliomyelitis was doing his patient a service by way of subsidizing the cost of hospitalization and was being community-minded in reporting a communicable disease. The criterion of diagnosis at that time in most health departments followed the World Health Organization definition: "Spinal paralytic poliomyelitis; sign and symptoms of nonparalytic poliomyelitis with the addition of partial or complete paralysis of one or more muscle groups, detected on two examinations at least 24 hours apart."

Note that "two examinations at least 24 hours apart" was all that was required. Laboratory confirmation and presence of residual paralysis was not required. In 1955 the criteria were changed to conform more closely to the definition used in the 1954 field trials: residual paralysis was determined 10 to 20 days after onset of illness and again 50 to 70 days after onset. The influence of the field trials is still evident in most health departments; unless there is residual involvement at least 60 days after onset, a case of poliomyelitis is not considered paralytic.

This change in definition meant that in 1955 we started reporting a new disease, namely, paralytic poliomyelitis with a longer lasting paralysis. Furthermore, diagnostic procedures have continued to be refined. Coxsackie virus infections and aseptic meningitis have been distinguished from paralytic poliomyelitis. Prior to 1954 large numbers of these cases undoubtedly were mislabeled as paralytic poliomyelitis. Thus, simply by changes in diagnostic criteria, the number of paralytic cases was predetermined to decrease in 1955–1957, whether or not any vaccine was used. At the same time, the number of nonparalytic cases was bound to increase because any case of poliomyelitis-like disease which could not be classified as paralytic poliomyelitis according to the new criteria was classified as nonparalytic poliomyelitis. Many of these cases, although reported as such, were not nonparalytic poliomyelitis. If this

inaccurate number of cases of nonparalytic poliomyelitis reported in 1957 is accepted as accurate and considered as a base for subsequent comparisons, it is no wonder that we now say nonparalytic cases went down in 1958.

There is still another reason for the decrease in the reported paralytic poliomyelitis cases in 1955–57. As a result of the publicity given the Salk vaccine, the public questioned the possibility of a vaccinated child developing paralytic poliomyelitis. Whenever such an event occurred, every effort was made to ascertain whether or not the disease was truly paralytic poliomyelitis. In fact, I am certain that many health officers and physicians here will ask routinely if a child has been vaccinated when signs of poliomyelitis are present during the summer months. We have been conditioned today to screen out false positive cases in a way that was not even imagined prior to 1954.

As a result of these changes in both diagnosis and diagnostic methods, the rates of paralytic poliomyelitis plummeted from the early 1950's to a low in 1957.

Why then has there been a recent increase since 1957?

Why have the improved methods of diagnosis not prevailed during 1959 and 1960?

The improved methods of diagnosis have prevailed. The present increase, I believe, is caused by a long-term, increasing trend in the incidence of the condition or disease we now call paralytic poliomyelitis. Without doubt, the increasing trend has been reduced to some extent by the Salk vaccine. Nevertheless, the Salk vaccine has limited effectiveness in its ability further to reduce this trend. The reduction at the outset appeared to be much more effective than it was, because the early years of the vaccine's use were clouded by reduction in reported incidence by the elimination of the false positives. However, any future substantial reduction in this trend will require a more potent vaccine, not simply vaccinating more people. If there were no other vaccine, complete vaccination of all susceptible persons in the population with Salk vaccine would be justifiable.

Delays in accepting the new live virus vaccines may result in a continuation of the trend observed in 1959. Today it may be a serious mistake to be ultraconservative in accepting the new live virus vaccines under the impression that there is no hurry because an almost equivalent immunizer exists in the Salk vaccine. A delay in accepting and promoting better vaccines will be a costly one. There must be immediate pressure applied to determine whether or not the new vaccines are more effective, so that we do not cling, for sentimental or personal reasons, to an older vaccine whose true effectiveness is today unknown.

QUESTION. Are antibody levels any indication of the reliability of the effectiveness of the vaccine?

Dr. Cox. The only way you really can determine vaccine effectiveness is by direct challenge. Obviously, in polio you cannot make a direct challenge on man. We know, however, from experience with other vaccines that the most accurate indirect method we have is measuring the levels of neutralizing antibodies in the blood, and that's what we're checking.

It is well accepted now that this method represents a spillover of antibodies produced in the tissue. We do not know, however, the exact level of neutralizing antibodies necessary to protect against paralytic polio. There is increasing evidence that antibody levels as low as 1:4 are significant. Complement-fixing antibodies, on the other hand, are not a reliable index of effectiveness, nor do they necessarily correlate with neutralizing antibodies.

Dr. KLEINMAN. Dr. Ratner has put me in the position of Devil's advocate, being the only one on the panel who at one time committed himself in writing that the Salk vaccine was quite effective. Back in 1958 we showed, or thought we showed, that two doses of Salk vaccine was 83 percent effective in preventing paralytic polio. We thought this was done rather carefully using a life table method of analysis which recognizes that the population at risk changes week by week and month by month. We did not, however, as Dr. Greenberg suggested, give special weight to those months of the year in which the risk of contracting polio is greatest.

We repeated this study of 1955 and 1956 by projecting the same type of statistical analysis into 1957. Lo and behold, we found that two doses of Salk vaccine was not nearly as effective in 1957 as we thought it was in 1956. Instead of 83 percent effectiveness, we found only about 24 percent. Further, in 1957 we found that it took three doses to come close to the effectiveness that we had demonstrated with two doses in 1956.

But let's leave that aside. Let me tell you why, aside from the statistical standpoint, I'm getting nervous about the Salk vaccine. My first reason is the definite increase in paralytic polio. In Minnesota we have found that 20 percent of our 1959 paralytic experience has occurred in triple and quadruple vaccinates. At present, I am an agnostic as far as the efficacy of the Salk vaccine is concerned because I do not know how effective it is. I believe it has some degree of effectiveness, but I do not know the extent because I cannot get proper denominators. A denominator which consists of a point determination of the number of vaccinates as compared to the unvaccinates is absolutely useless because it ignores the changing character of the risks involved. These risks vary from day to day depending upon the seasonal peculiarities of polio infection and the changing character of the Salk vaccinated population.

Laboratory findings are another reason why I am getting nervous. If polio antibodies mean anything in respect to protection, then I am forced to conclude that much of the Salk vaccine we have been using is useless. For 2 years now we have done antibody titrations on children who have received three or more doses of Salk vaccine. These titrations show that over 50 percent do not have antibodies to types I and III and that 20 percent lack antibodies to type II polio virus. This is a very disturbing fact. When a phenomenon like this occurs 2 years in a row, one has reason to believe that the material we are injecting is not an antigenic preparation.

I should also like to emphasize Dr. Greenberg's remarks on the changing concepts of polio. It is now extremely difficult to get a Minnesota physician to make a preliminary diagnosis and report of nonparalytic polio. We now know that aseptic meningitis has a much broader etiology than polio virus. In 1956 in much of our so-called nonparalytic polio, the etiology turned out to be Coxsackie B–5 virus, and in 1957 a staggering outbreak turned out to be Echo 9 virus. It is no wonder then that the average doctor does not want to make a diagnosis of polio in the absence of frank lower motor neuron flaccid paralysis. As a result, the only polio that's being reported today are cases with frank paraylsis.

I would also like to agree with Dr. Greenberg that the insistence upon a 60-day duration of paralysis for paralytic polio is absolutely silly. There isn't a doctor in this room who hasn't seen a case of frank paralytic polio which has not recovered within 60 days, or at least recovered sufficiently so that you could not estimate with clinical certainty that there was some residual paralysis.

I would like, then, to have my position understood, at least on this panel, as that of an agnostic so far as the Salk vaccine is concerned. I am not against it. I think it is the only medium we have which has some degree of reliability; but I think there are better methods, and I think we should take advantage of these methods if it seems at all reasonable.

Dr. RATNER. Dr. Cox, what has been your experience with antibody findings in triple or quadruple Salk vaccinates?

Dr. Cox. First let me say that I am convinced that living virus vaccine is going to be the final answer. I base this statement on my experience in the virus field since 1928. I am not against killed virus vaccines. I was the first person to prove that they could be made. This was at the Rockefeller Institute, where I developed a killed vaccine against eastern equine and western equine encephalomyelitis. Later, as a bacteriologist at the USPHS, I produced other killed vaccines.

I want to emphasize, however, that everything done in the field of virology has to be quantitative. This applies to living as well as killed virus vaccines. Unless you have quantitative methods and know what you are putting into a vaccine product, you have nothing. The reason our company refused to make the killed Salk vaccine was because we knew it was impossible to produce enough virus by known tissue culture methods to make a good killed poliovirus vaccine. We knew the quantitative requirements for vaccine as far back as 1934. Dr. Salk has admitted this past year that this principle is true. This basic quantitative principle is precisely applicable to polio. I am anxious to tell you what we know.

There are very few things that you can generalize upon in this field, but one thing you can depend on is that you've got to have at least 100 million particles per dose to make a killed vaccine that's worth anything. The only single exception is Rocky Mountain spotted fever vaccine, which has by far the best antigen that anybody has every found, either in rickettsiology or virology. With spotted fever you can make a good killed vaccine with between 10 and 30 million rickettsial particles, but in the case of viruses you must have 100 million virus particles, as a minimum, and preferably a higher concentration.

We have found that in production—all the manufacturers have found this—you never get much above 10 to 30 million poliovirus particles per cubic centimeter by tissue culture methods. Accordingly, we told our company that to make a good killed virus product we would have to concentrate the vaccine from fivefold to tenfold for a product that would meet our standards. Otherwise, we would be producing a product that a true scientist could not be proud of, and we didn't want to be in a position where we could not back the product. It costs the manufacturer around 39 cents a cubic centimeter to make the present killed vaccine. If you multiply that by fivefold to tenfold and include the additional labor costs, you can see that the product would be costly. We predicted this back in 1950 when we decided not to produce Salk vaccine.

We are now learning, not only in the United States but in Israel, England, and Denmark, that the killed product does a fairly good job of producing antibodies against type II poliovirus. But type II represents only about 3 percent of paralytic cases throughout the world. The killed vaccine does a poor job against type I, however, which causes 85 percent of paralytic cases, and against type III, which causes about 12 percent. In other words, the killed vaccine is doing its best job against the least important type. It took time to find this out. It was proven in Israel in 1958, when it had its big type I epidemic. They did not see any difference in protection between the vaccinated and the unvaccinated. Last year in Massachusetts during a type III outbreak, there were more paralytic cases in the triple vaccinates than in the unvaccinated. Actually, there is a very good but little known immunological explanation for this.

Dr. Kleinman, in referring to the Minnesota studies, did not specify that in the triple Salk vaccinates 57 percent had antibody titers of less than four to type I poliovirus, 20 percent had the same lack of antibody titers to type II poliovirus, and 77 percent had titers of less than four to type III poliovirus, as of January and February 1958. We found the same thing in Pearl River personnel. The amazing thing is that when you analyze these 1,100 people scattered in northern New Jersey and southern New York, you find no appreciable difference between the response of the unvaccinated and the vaccinated, following three or four injections, to type I or III poliovirus.

QUESTION. At what intervals after the last injuection did you make these antibody studies?

Dr. Cox. These vary, but they're all within a period of 18 months. Of course, the claim has been made that a good killed Salk vaccine should give a longer duration of immunity. I don't know of any killed vaccine that gives a longer duration of immunity. I do know that in Rocky Mountain spotted fever, which has a mortality rate of 95 percent, the vaccine has eliminated mortality, provided booster doses are taken once a year. The same thing is true with epidemic typhus vaccine. Both of these are very good killed vaccines. I know of none better; yet the immunity they provide is of short duration and requires yearly boosters.

Dr. RATNER. Dr. Cox, would you relate the effect of the additional filtration step, which was introduced as a necessary safety measure in November 1955, on the production of a potent Salk vaccine?

Dr. Cox. The extra filtration step was introduced because the amount of formalin used in preparing the vaccine did not inactivate the poliovirus. We found residual live virus for as long as 42 consecutive days of inactivation. It is common knowledge in the industry that the regulations requiring incubation for 10-day intervals did not eliminate residual live virus. The manufacturers, through difficulties encountered in production, soon learned of this and, to be sure there was no live virus, extended the period of cooking to 30 days or more. Even then they had to throw out batches, because polio is one of the most difficult viruses to inactivate with formalin.

The second filtration step was picked out of thin air with no experimentation to back it up. Because it was thought that residual live virus particles encased in a mass of killed particles were getting through, the filtration step was introduced in the hope that it would remove this aggregate. We've known for years, however, that any time you introduce an additional filtration step you lose antigen. Actually, the Israelis found they lose from tenfold to thirtyfold in virus content by a second filtration step. If you have a small amount of antigen to start with, additional filtration will only reduce it still further. Certainly, this vaccine has been most confused because of many vested interests, but on a scientific basis any virologist will agree that I'm telling you the absolute gospel.

QUESTION. Do you know the variation of the potency of the Salk vaccine on the market?

Dr. Cox. Unfortunately, that varies considerably. The manufacturers are unable to quantify virus particles in the killed vaccine because it is too costly. A good killed vaccine requires a standard, consisting of the number of virus particles of the strain being used. This standard, of course, will vary with the strain used in both killed and live vaccines. From experience we know that it is wise to have a highly virulent strain for good antibody response. That's why the Mahoney strain, which is highly virulent in monkeys, was chosen as the type I component of the Salk vaccine. As little as five virus particles of Mahoney injected intramuscularly will paralyze monkeys.

This virulent strain, however, was responsible for the vaccine-induced outbreaks in the spring of 1955. In Idaho, where the people were polio virgins, the vaccine caused numerous cases of polio. In New Mexico, Arizona, and elsewhere, where natural immunity was present, there were few or no cases.

Dr. RATNER. Some specific data on the variation in potency may be of interest. New York State Health Department investigators reported in September 1956 that there was a 600-fold variation in the potency of commercial Salk vaccine on the market. Other unpublicized USPHS data showed a sixtyfold variation. Today many inoculations of the Salk vaccine are needed to accomplish the same results that were claimed in 1955 with one inoculation. In the history of drug therapy there are few drugs, if any, which become progressively inferior with increasing years.

Dr. Cox. I would like to repeat that good vaccine, whether living or killed, has to be quantified. Our living poliovirus vaccine, which I hope to tell you about very soon, is quantified. We keep very careful control of the exact amount of virus in every drop we produce.

In virology you have to deal with both quantity and quality. If both are under control, you're on solid ground. If they are not under control, you don't know where you are.

Dr. RATNER. To close the discussion on potency, back in May 1957 the largest producer of Salk vaccine in the United States had several million dollars worth of vaccine on hand which did not pass the minimum potency requirements of the USPHS. Subsequently, the Division of Biological Standards reinterpreted the minimum requirements to make possible the commercial utilization of this vaccine.

We would now like to spend a little time on the safety factor.

Dr. MEIER. The thing that impresses me most about this question of polio vaccine is a problem that has been discussed only by indirection. How is it that today you hear from members of this panel that the Salk vaccine situation is confused; yet what everybody knows from reading the newspapers, and has known since the vaccine was introduced, is that the situation as far as the Salk vaccine is concerned was and is marvelous? The reason for this discrepancy lies, I think, in a new attitude of many public health and publicity men. It is hard to convince the public that something is good. Consequently, the best way to push forward a new program is to decide on what you think the best decision is and not question it thereafter, and further, not to raise questions before the public or expose the public to open discussion of the issues.

My own contact with this attitude came when I was a member of the department of biostatistics at Johns Hopkins, where I had an opportunity to talk with some of the people who were connected with the vaccine. My interest was stimulated by several papers on the safety of the vaccine written by Salk preparatory to the 1954 field trials.

The general theory that Salk was working on was a very simple and old one: That the inactivation of poliovirus by formalin would proceed in a straight-line, first-order reaction. This means that in x hours of contact with formalin, half the virus particles would be inactivated, that an equal number of additional hours would inactivate another half of the remaining live virus particles and so on. By extending the period of inactivation, a product would result in which the amount of living virus remaining was necessarily so minute as to have no practical significance. This was Dr. Salk's built-in safety factor to insure complete safety.

Although this theory applies to many cases, whether it applies to the Salk vaccine remains an empirical question. What troubled me greatly was that it appeared from actual data which Salk presented that the theory did not apply. Assuming there was some error in my understanding or in Salk's, I inquired of the people who knew about this. The answer I consistently received was "I see what you mean. I haven't thought about it very carefully myself, but there are many important and competent people who are taking care of this. Don't

worry. After all, this is merely a paper for the public and not the real technical goods." The answer as it emerged later, of course, was no one was taking care of it.

The problem of making a new vaccine, or adopting any public health measure, will always be difficult. We have to be prepared to move ahead in face of the risk of error. In this particular issue, what troubled me was moving ahead when the error was there before us in the paper that undertook to demonstrate safety.

The reason for this unhappy situation lies first in the attitude I referred to earlier: that dissent and discussion in public are unwelcome. Second, I think it lies in the diffusion of responsibility that has resulted from the committee system of promoting new measures. In this case a large committee was involved, but no single member took it upon himself to check the problem all the way through. Although Dr. Salk felt he had, no one else doublechecked him. Even more serious evidence than that which Salk provided in public emerged later: the presence of live virus in vaccine manufactured in strict accordance with the protocols. To be sure, these lots of vaccine were not distributed for the field trials in 1954. Notwithstanding, this experience demonstrated unequivocally that the method itself was not safe. Furthermore, most of you know that the triple safety checking of the vaccine used in the field trials by the manufacturer, Dr. Salk's laboratory, and the Public Health Service was dropped in the licensing procedure. Most of the lots distributed in 1955 were tested only by the manufacturer. It was no surprise, then, that we had a spring outbreak of vaccine-induced cases. The only surprise was that there weren't more.

PART II[3]

VACCINE SAFETY

QUESTION. How many lots were accepted as safe for licensing on manufacturer's protocol alone?

Dr. HERALD COX. Not all lots were checked by laboratories other than the manufacturers'. They were random sampled. The Director of the Laboratory of Biological Controls was aware of safety testing problems but was unsuccessful in obtaining a clarification from Dr. Salk.

QUESTION. Didn't the Director grant the license?

Dr. COX. He did not want to grant the license, but his decision was overruled.

Dr. HERBERT RATNER. In March 1954, 10 of the 48 lots of vaccine produced for field trial use were positive for live virus by tissue culture or monkey tests. In only 2 of these 10 was live virus detected by all three laboratories: that of the manufacturer, the National Institutes of Health, and Dr. Salk. In seven of the positive lots live virus was found by a single laboratory but not by the other two. As Krumbiegel pointed out at this society's annual meeting in 1956, "The real cause for alarm was the knowledge that there was no correlation of positive test results among the different laboratories * * * and practically none within the same laboratories insofar as results of tissue culture and monkey inoculation tests were concerned * * * the results of the tests served to prove the inadequacy and unreliability of the testing procedure." Notwithstanding, on the basis of Dr. Salk's report in April of no adverse effects following the vaccination of 7,507 children with commercially prepared vaccines, the 1954 field trials were allowed to proceed.

In 1955 two rather than three groups participated in safety testing: the manufacturers and the National Institutes of Health. The manufacturers ran both tissue culture and monkey tests on the vaccine they submitted for licensing. At the NIH laboratories only 14 percent (seven-fiftieths) of the lots submitted for licensing were subjected to both tests; the majority, 64 percent (thirty-two-fiftieths), were subjected to only one test—the tissue culture test. This was done despite the fact that it was known from the 1954 testing experience that monkey tests on some trivalent material were positive even when each of their monovalent components (types I, II, and III), before pooling, had been found negative by tissue culture tests. Twenty-two percent (eleven-fiftieths) of the lots submitted for licensing were not tested by NIH at all. These figures indicate that the vaccine used in 1955 was inadequately tested. Therefore, it is not surprising that there were cases of vaccine-induced polio in the spring of 1955.

To bring this issue of the safety of the Salk vaccine to a close, the following

[3] Reprinted from Illinois Medical Journal, September 1960.

information is pertinent. In 1953, experienced investigators from the Michael Reese Hospital in Chicago failed to produce a safe vaccine by the Salk formula. Their findings were dismissed by the backers of the Salk vaccine.

In the spring of 1955 one of the manufacturers using safety tests more rigid than those required by the USPHS found live virus in its own vaccine, in another manufacturer's vaccine on the open market, and in one of Dr. Salk's vaccine preparations used as a standard for commercial vaccines. This manufacturer discontinued production of Salk vaccine and did not resume until an alternative method (ultraviolet irradiation) was developed in the fall of 1955. Some of the released vaccine of this manufacturer, however, had already been used in Massachusetts, which experienced an epidemic, and some of the same lots were used in New York, and in Minnesota, where, as Dr. Kleinman has said, he found 83-percent effectiveness. Of course, many of us thought the effectiveness of the 1955 vaccine was due primarily to the fact that it did contain live virus.

One other manufacturer found live virus in another of Dr. Salk's standard vaccines. A member of the USPHS also found live virus in commercial vaccine other than that admitted by the USPHS to have induced cases. The findings were not published. The Massachusetts State Polio Advisory Committee, which included among others, John F. Enders, Thomas H. Weller, and Maxwell Finland, temporarily banned the vaccine despite USPHS licensing because of its knowledge of these findings. Epidemiologic evidence of unsafe vaccine from manufacturers not named by the USPHS has been reported by Anderson, Redeker, and others.

It should also be stressed that safety testing was inadequate when Dr. Salk developed his vaccine and when the vaccine was commercially prepared for the field trials of 1954 and for licensing and use in 1955. The claim of long duration of effectiveness, then, as measured by antibody levels reported by Salk, Brown, and others, really applies to a vaccine which did not exclude the presence of live virus. It does not apply to current vaccine in which potency has been sacrificed for safety. There is internal evidence in the papers of Salk and Brown that some of the antibody response to the vaccine was too pronounced to be explained by a killed virus.

At present, epidemiologic methods employed by the USPHS to assure safety of the vaccine are inadequate: First, because of the failure to thoroughly survey untoward reactions, and secondly, because of unrefined criteria for the determination of safety; for instance, insistence on correlation of initial paralysis at the site of inoculation, and discontinued reporting of satellite cases.

QUESTION. Has any State health department recommended that Salk vaccine not be used?

Dr. RATNER. I know of no State health department that refuses to issue it now, although earlier this was not the case. This is a question of whether a State health department is in a position to oppose mass propaganda and the public opinion that has been formed by it.

Dr. HERMAN KLEINMAN. There is only one thing we can do in Minnesota and that we are doing. There is no known way of preventing polio with a licensed product at the present time except through the use of the Salk vaccine. While I am an agnostic about the effectiveness of the Salk vaccine, I still believe it does something in preventing paralysis. So we owe it to the public to recommend its use. On the other hand, if we are going to act not only as public health physicians but as scientists, we must continue our investigations into the truth about the Salk vaccine. On the basis of the facts as I know them, we must look for something better.

Dr. PAUL MEIER. It seems to me that the State and local health officers are at levels different from USPHS and in much the same position as my children's pediatrician. He said, "We are very disappointed in the Salk vaccine; we are very unhappy with it; but what can we do? The people who have the evidence, who have the knowledge, who should be able to judge, say use it. I am in no position to second guess them and to make a different decision. I have to recommend it and I have to use it."

This is no position for public health officers to be in, but there isn't any question that is the position. All the facts have never been discussed. The great pressure of publicity has been exerted. It would be a health officer with great self-confidence who would say that on the basis of the little he knows he is prepared to make a judgment different from that of the USPHS and to decide not to give it. On the other hand, I don't consider it convincing evidence of the

efficacy of Salk vaccine that all, or almost all, health officers have gone along with it.

Dr. BERNARD GREENBERG. I would like to second that comment to make sure that my position is understood. I'm an agnostic like Dr. Kleinman. I am sorry that I do not know what the effectiveness of the Salk vaccine is. Since nothing else is available, there seems to be no alternative but to push the use of it. I don't think we should do so in ignorance, nor too complacently, believing that as long as we have something partially effective there is no need to have something better. The USPHS is, in effect, saying, "Let's face it: we were burned the last time by getting into this business too quickly; so this time we are going to be more cautious." By being more cautious, we may make a mistake by accepting a better polio vaccine too slowly. And that's what I am trying to emphasize: They must realize they are making this mistake possible. The issue must be pursued.

QUESTION. Dr. Cox, are we doing any harm by using a low antigen titer Salk vaccine?

Dr. Cox. I have data which I have never published, because at the time I didn't fully understand the significance of it. While working with the USPHS in Montana many years ago on the development of killed vaccines for Rocky Mountain spotted fever and epidemic typhus fever, I observed that vaccinated guinea pigs challenged with Rocky Mountain spotted fever or typhus would sicken and die before the controls. I couldn't find anything about this in the literature, and it bothered me for about a year. I learned that by increasing the antigen fivefold to tenfold into the range of 100 million to a billion organisms per cubic centimeter of vaccine, this adverse effect was corrected and an effective product obtained.

We had the same experience at Lederle with Japanese B vaccine. Lots of vaccine which had less than 100 million virus particles invariably would cause the vaccinated mice to die before the controls when challenged. The same thing happened to us when we tried to produce a vaccine against lymphocytic choreomeningitis. During the war the Division of Biological Standards made the same observation with Japanese B encephalitis vaccines.

I mentioned this observation and correlation in a paper in 1954; namely, that with a low antigen killed vaccine you stand the danger of actually doing more harm than good.

The first field evidence we've had that there may be something to this clinically was the type III polio epidemic in Massachusetts last year, where 47 percent of the paralytic cases occurred in those who had three or more injections of the Salk vaccine. The lower incidence of paralytic polio (37 percent) in the unvaccinated group raises the question as to whether we have produced a greater sensitivity in the vaccinated individual. If the investigators have correctly estimated the numbers of vaccinated individuals, the clinical finding confirms what we've seen in the laboratory. It is hard to be sure that this is the case. But we have supporting laboratory experience that susceptibility is increased by sensitization with low antigen vaccines. This is an immunologic fact supported by USPHS findings. I advised against the manufacture of the Salk vaccine because I knew from experience that 1,000 to 4,000 formalin would not kill the poliovirus and that high concentrates of antigen are necessary for an effective killed vaccine. With low concentrates of antigen you may do more harm than good.

LIVE POLIOVIRUS VACCINE

When measured against its killed counterpart, a live virus vaccine is always a superior vaccine. It invariably cost about half of that of a killed vaccine. The only reason for not making a live typhus vaccine, for instance, is that technical problems of sterility would be difficult to overcome on a production basis.

We chose the oral route for live poliovirus vaccine because polio infects through the oral route. We also knew from our work with other viruses that the best way to immunize is to follow nature where possible. Since nature was immunizing 999 persons out of a 1,000 against polio without any trouble, the idea was to follow nature's example but to cut the risk down as much as possible.

The work we did on Newcastle disease in chickens was a perfect model in every respect for polio. Although the Department of Agriculture had previously stated that they would not license a single live virus product, today it is hard to find a killed virus product in veterinary medicine. They too found out that living virus vaccines are superior. They give a higher degree of longer lasting immunity. They cost less to make and administer.

Polio is unique because many more people get the infection than the disease. When you think about it, theoretically it should be the easiest of all viruses to modify. Rabies, by comparison, is 100 percent fatal when introduced into the brain tissue of any warm blooded animal. Yet, we are able to modify the rabies virus so that we can inoculate it directly into the brain of warm blooded animals with no sign of the disease. When challenged with virulent strains of rabies, these animals will withstand 100,000 lethal doses inoculated directly into the brain. If we can do this with rabies, we certainly should be able to modify polio, which produces clinical signs of the disease in so few people.

A complicating factor in polio was that we were dealing with three different types, each of which had to be modified. Furthermore, we felt that we had to modify these viruses by adaptation to a foreign host. In making yellow fever vaccines, we learned that when you take a virus and adapt it to an unnatural host, it loses its virulence for the original host. This central basic principle was observed by Jenner also, when he found that cowpox had the ability to immunize against smallpox. In yellow fever, therefore, scientists purposely adapted these strains to new hosts, first, by adaptation to the brain tissues of suckling mice, then to mixed tissues of suckling mice in tissue culture, then to chick embryo tissue cultures, and finally to the chick embryo in the egg itself. Even though it has been claimed that you cannot grow polio in chick embryo, we succeeded in growing all three strains in chick embryos. The reason we desired this was that experience has shown the absence in chick embryo of extraneous virus contaminants which cause illness. Chick embryo for all practical purposes is a pretty sterile package.

The only thing that balked us after we got the polio strains in chick embryo was their poor antigenicity. Type I was completely nonantigenic; type III was so poor that its cost would have been prohibitive; the only one that was half-way antigenic was type II. In other words, we learned that it is unwise to continue passage in nonmammalian tissue for long periods of time. The big danger in modifying live virus is not stopping at the right point. If you carry it too far, you overmodify and lose what you're after. It's safe but it won't immunize.

We have developed our strains of virus so that they are nonvirulent to monkeys in the range of 100,000 to a millionfold. We know that in some instances as little as two tissue culture particles of some wild strains of polio when placed in the brain, or as little as five tissue particles inoculated intramuscularly, will paralyze monkeys. It's most unusual, however, for our modified strains in undiluted form with a concentration range from 30 to 40 million virus particles per cubic centimeter to paralyze monkeys by direct intracerebral inoculation.

Since the chance of getting paralytic polio from a natural infection of wild virulent viruses is only one in a thousand, modified poliovirus adds an additional safety factor of at least 100,000, reducing the risk to about one in 100 million or 10 in a billion. Furthermore, we don't need 30 million virus particles for an infecting dose. We need only somewhere in the range of a 1.5 million to 3 million virus particles. We do not have to concentrate anywhere from five to tenfold, as in the killed vaccine; instead we dilute.

A live poliovirus vaccine needs many more virus particles to establish an immunizing infection than any other live virus vaccine I know. This may be due in part to the destruction of virus by gastric juices. It could be because our strains may be modified more than they need to be. At any rate, all of these factors must be worked out quantitatively, for we have to know just how many virus particles we're feeding if we are to come out with a better product.

The type I and III components of our vaccine are now standardized to contain at least 1,200,000 to 1,500,000 live virus particles. In our type II, which has been overmodified, we need 3 million virus particles for a 90 percent immunizing dose. Now we are in the process of increasing type II's power to infect. We do this by feeding the virus to man, having him shed the virus as long as possible, recovering the virus in the stool, and obtaining pure strains through tissue culture. Then we test the recovered viruses in monkeys and isolate those with minimal virulence. Such strains then have the ability to infect human cells, which is what is needed, because you cannot immunize unless you can infect.

It must be remembered that you cannot immunize the gastrointestinal tract with killed vaccine, even in large amounts. Although the killed vaccine does

induce antibodies in the blood, this does not prevent the person from becoming a carrier and shedding poliovirus. One can recover wild poliovirus strains as well as modified virus strains in Salk-vaccinated persons.

The principle of the live virus vaccine in polio is analagous to protecting your house against the weather. You don't fill the rooms with concrete. All you do is paint the outside walls because they are the site of exposure. In the case of a natural polio infection, if you are one of the 999 lucky ones out of a thousand who does not get the disease, the virus grows in the cells of the gut, and viruses are shed anywhere from 10 days to as long as 6 months without symptoms. During this process antibodies appear in the blood. As a result of this infection the cells of the gut become resistant for varying periods of time, depending on the number of cells infected. I have an example of this in my three grandsons. The older ones, who had been vaccinated more than once, did not shed type II on refeeding. The youngest one, however, who was immunized only once, a year earlier, shed virus for several consecutive days and then stopped.

If you proceed gradually, and quantitatively, and imitate the norms of nature as a model for improvement, you are on solid ground. In this connection we have benefited from experience with 10 or 12 live virus vaccines used routinely in the United States in veterinary medicine.

Using live virus vaccine is the only possible way to eliminate wild virulent strains in nature. The gastrointestinal tract must be made so resistant that wild strains cannot get a foothold. This cannot be done with a killed vaccine. We know this from hog cholera. In the 35 States that have prohibited the use of anything but live virus vaccine, the wild strains of hog cholera have disappeared because the swine have become resistant to infection.

In the beginning we moved slowly and cautiously. We started with my immediate family—my daughter was the first pregnant woman ever immunized. Then we included neighbors, then employees at our Pearl River plant and their families. At present we have immunized over 900,000 people in something like 20 different countries on four continents with monovalent feeding and over 1.5 million people with trivalent vaccine. The vaccine now has over a 90 percent take, and over 90 percent of those missed, whether it be type I, II, or III, can be immunized by a second feeding.

We do not claim that this product will result in life-long immunity. One does not even get life-long immunity on a mild exposure to a natural poliovirus infection. This is something we have to continue to study. In this country it is unusual to find antibody titers as high as 1,000 to 2,000; but in South America it is not unusual to find pregnant women with titers in excess of 8,000 to 10,000, because they are constantly being battered by reinfecting doses.

Live polio vaccine will be cheap enough so that you can afford it once a year, however, if it turns out that it's needed that often. This is important because the United States is not the only country in the world that needs polio vaccine, and in other countries low cost is more important. Polio vaccine is needed particularly in the Tropics where there is plenty of polio even though it has been said for years that the Tropics are not affected by this disease. One of the most severe epidemics of type I polio in medical history occurred in Costa Rica in 1954. They had over 1,000 cases in a total population of approximately 1 million.

We began our basic clinical investigations in Minnesota particularly because University of Minnesota and State health department physicians felt as we did that killed vaccine was not the answer. We began in 1957 and are now in our fourth year. We gave them all of the facts of our product. We held back nothing. We let them know the unanswered questions.

We learned from our initial studies on 25 babies that babies shed virus in quantities as high as a million virus particles per gram of stool. Some of these babies shed virus as long as 3 months. Practically every member of the family picks up this polio infection whether they've been Salk-vaccinated or not. The important thing is that there were no signs of illness, neither in the babies fed, in the family contacts, nor in the community.

In 1958 we did a larger scale double-blind study in the university community of Como Village in Minneapolis with coded vaccine. Only the State statistician knew the code. Neither the doctor, nor the patient, nor those at the State laboratories who ran the bloods and stools of these 550 people knew who had received the vaccine and who the placebo. When the code was broken, we found that we had about a 90 percent antibody response in vaccinated individuals and about a 14 percent increase in antibodies in the placebo group. We dis-

covered that the infection caused by modified viruses is essentially a household disease just as polio is normally.

We went into two epidemics, a type I in Colombia in 1958, and the tail end of type II (surprisingly enough it was type II) in Managua, the capital of Nicaragua, in 1958. The type I epidemic was caused by an exceptionally virulent strain—two virus particles paralyzed monkeys. Fifteen verified cases had already been reported. We vaccinated over 7,000 children with monovalent type I followed by types II and III. Within 8 days no more cases were reported, and not a single case has been reported since then. But we cannot make the claim that we broke the epidemic because we have no way of knowing what the future of that outbreak would have been.

In Nicaragua in a highly virulent type II epidemic 254 paralytic cases had been reported. Of the 251 cases in children under age 10, 217 were under age 2. We went into Managua and vaccinated over 42,000 children under age 10 during a 12 day period with type II, and then later fed type I and III. Even though polio had been reported in Managua every month since 1949, with the exception of 3 months following the 1953 type I epidemic, they had a 10½ month period without a single case reported. Polio has come back to Nicaragua this year in the outlying districts, but it has spared Managua. This year we moved into the outlying districts and fed 35,000 doses of trivalent vaccine. Within 6 days there wasn't a single case of polio reported.

Here again we may have been hitting the tail end of an epidemic, but it seemed to break right in the middle. We can't conclusively say one way or the other that we did or did not stop the epidemic, but we do know that a person who is fed this vaccine will begin to show the presence of virus in the stools on the third or fourth day after feeding indicating that the cells in the gut are infected. Type II sheds for a maximum period of two weeks; type I for about a month; and type III stays within the norm of 6 weeks. We find circulating antibodies in the blood on about the 9th or 10th day, and they reach a maximum peak in about 30 days. By the end of 1 year they start to decline gradually.

We have fed this vaccine under all kinds of conditions. We fed it in Finland, and in West Germany where presently we are immunizing West Berlin. We started the latter on May 12. I checked this morning and they have already fed 271,000 children and estimate that by the middle of June they will have fed about 450,000 under 11 years of age. We've worked in France, Spain, Italy, Israel, slightly in Argentina, on a rather good scale in Montevideo, in Peru, Colombia, Nicaragua, Costa Rica, Haiti, heavily in Cuba, in California, Minnesota, New York, New Jersey, and Florida, and in Canada, Japan, and Taiwan.

In Latin America we have worked with the approval of the local health officer and the Pan-American Sanitary Bureau. This year the entire country of Costa Rica has been singled out to be vaccinated because of the severe epidemic they experienced in 1954. About 3 weeks ago I heard from the Costa Rican Minister of Health that they have succeeded in feeding trivalent vaccine to 281,000 children of an estimated 460,000 under the age of 11. There's no point in going above that age, because by the time Costa Rican children are 10 or 11 years old, they have all had experience with the three types of polio. He reports a conversion rate of about 93 percent to types I and III, which independently confirms our conversion figures.

Other findings are of interest. In Cuba we carried out a study with Dr. Juan Embil, Jr., who fed trivalent live poliovirus vaccine to children with acute infectious diseases such as, measles, mumps, influenza, and even typhoid fever to determine contraindications to the use of the vaccine. We found none.

Out of 360 pairs of blood (pre- and post-vaccination) that we tested from Cuban children of school age, we found 76 children who lacked antibodies to one type or another. Actually they had 91 antibody gaps in their type I, II, and III antibody structures. A single feeding of trivalent vaccine filled in 80 of the 91 gaps for a conversion rate of 88 percent, and converted 65 of the 76 children to a triple positive status for a conversion rate of 86 percent.

In western Massachusetts where we tested 123 paired bloods, 67 individuals started out with 115 antibody gaps. A single feeding of trivalent vaccine filled in 104 of the 115 gaps for a conversion rate of 90.4 percent, and 56 out of the 67 persons were converted to a triple positive stage for a conversion rate of 84 percent.

As you may know, in February this year Dade County including Miami began a countywide mass vaccination program with our trivalent vaccine. The data

from there are actually the best we've seen. That's partly because we corrected the type II component, which has been giving us comparatively poorer results, by doubling the quantity of type II virus in the vaccine. To give us an idea of the results, they sent us 300 coded pairs of blood. We received them in lots of 20, and all we knew was that each lot included 10 matching pairs.

After the code was broken, we found they were all from young adults at the University of Miami. Of these 300 students, 161 were not triple positives and 25 (8 percent) were actually triple negatives—they had no antibodies at all. This was a surprising fact because in Florida's subtropical climate they should have had plenty of experience with natural polio infections, as well, perhaps, as exposure to Salk vaccine.

In the polio virgins we filled in 25 of the 25 gaps for type I, the type responsible for 85 percent of paralytic polio cases. We filled in 19 of the 25 gaps for type II, which accounts for 3 percent of paralytic polio, for a conversion rate of 76 percent. And we filled in 23 of the 25 gaps for type III, which accounts for about 12 percent of paralytic polio, for a conversion rate of 92 percent. These gaps in the antibody structure of 25 triple negative, polio virgins were filled in by a single feeding of trivalent vaccine.

In the group of 161 students not triple positives, the conversion rates were as follows: In type I 97 of 99 gaps filled, 98 percent; in type II 70 of 79 gaps filled, 89 percent; and in type III, 80 of 85 gaps, 94 percent. We filled in a total of 247 out of 263 antibody gaps for an overall conversion rate of 94 percent on a single 2 cubic centimeter oral dose of trivalent modified live poliovirus vaccine.

I've talked long enough. The only other thing I can say is that the live poliovirus vaccine is coming. It takes time. The one thing I am sure of in this life is that the truth always wins out.

Dr. RATNER. Dr. Cox's vaccination figures deserve comparison with the 1954 field trials of the Salk vaccine. The Cox live poliovirus vaccine has now been used by many investigators in over 2.5 million people with millions more in the process of being vaccinated. The other two live virus vaccines under study have been used in additional millions. The question of safety has been paramount in the minds of these investigators. On the other hand, the Salk vaccine was used in only 400,000 persons in a single field trial in a study which assumed safety and was primarily designed to determine effectiveness. These figures reinforce Dr. Greenberg's thesis that the USPHS was premature in licensing the Salk vaccine and is now excessively overcautious in licensing the live virus vaccine.

Dr. Kleinman, will you bring this discussion to a close? Dr. Kleinman has recently spent several months in Latin America studying firsthand the results of field trials there.

Dr. KLEINMAN. I want to make a few points by taking you out of the laboratory and away from the statistician's computer without raking up the ghosts of long dead monkeys and waving their shrouds in your faces. In the final analysis the important issue is, What does this vaccine do to people and among people? Our Minnesota studies demonstrate a number of things. I would like to bring these to your attention because I feel work such as this must go on on the American scene within groups of people who have the same way of life to which you and I are accustomed.

First of all, the Minnesota studies are American in the sense that we're using the vaccine in people who are living in a way we are accustomed to describe and and to understand. Secondly, the Minnesota studies were the first to put these modified poliovirus strains into a community whose nature approximated our normal way of living. Prior to this, these strains were used in isolated individuals and in institutional environments. Thirdly, the Minnesota studies prove what has previously been denied: that it is possible to do a controlled study with the oral live poliovirus vaccine. Finally, the Minnesota studies demonstrate that it is possible to secure definitive results in a population which has had considerable experience with the Salk vaccine.

The importance of the Minnesota studies does not lie in their number, but rather in their design. I want to emphasize the word study. Even though we have involved 100,000 people in 1960, we still firmly believe we are studying the oral polio vaccine strains. Although the numbers are large, we are not carrying out a mass immunization program.

Important characteristics of our design are: (1) Our studies are placebo controlled. This includes the 100,000 people we are studying in 1960. (2) Our subjects receive complete public health nursing and medical surveillance. We do not feed and forget. We feed and follow through. (3) Our studies are

double-blind. Only one person, the statistician, knows who is getting the vaccine and who is getting the placebo. On the basis of our experience I can assure you that in your own community you can make a scientific and controlled study.

Now, briefly, what have we found in Minnesota?

We have found that these strains are good antigens. They will produce a conversion from titers of less than four to an appreciably higher titer in 90 percent of cases. Type II is the poorest. Type I and III are both excellent.

We have found, within the limits of our numbers, that these vaccines are perfectly safe to use. Because our studies have been controlled, we can unequivocably state that there have been no reactions. Before I left Minnesota for Russia, more than 50,000 persons had been fed the vaccine in Minneapolis and St. Paul, and we had checked out all reports of illnesses that occurred shortly after feeding. I did this personally. In Minneapolis, where more than 30,000 were fed, I had to make only 15 housecalls. What I saw was run of the mill. There was no central nervous system disease, just prodromes of measles, follicular tonsillitis, atopic dermatitis, and other conditions you normally find in a community.

We have found there is no great community spread of these viruses. Concern for spread has been a bugbear to many individuals. While these viruses will spread fairly rapidly and thoroughly within any one family, they will spread from household to household within the neighborhood only to the extent of 5 to 14 percent, depending upon the type. So you don't have to worry about creating an epidemic secondarily through the spread of viruses you originally fed.

We have found, by taking time out to study their natural behavior, that these modified viruses do everything that wild viruses do except produce the disease. In a certain percentage of vaccinees the virus can be recovered from the stool, of course. The fed strains can also be recovered from the pharynx, even through the person has circulating polio antibodies in the blood to begin with. And the virus can be recovered in the blood, which indicates a viremia following the feeding of these vaccines. Those persons with virus in the pharynx and in the blood have no subjective symptoms, however, and the examiner can see nothing objectively.

How long does the immunity last? We don't know. In those that we have studied we know that after a year, even though there is a general drop in titer from the originally induced titer, the antibodies persisted in 50 to 80 percent of the adults, and in 63 to 75 percent of the children tested. This is in individuals in whom we are certain that it was we who produced the original antibody change. We are not including those who started with either natural antibodies or Salk-produced antibodies. Other data show that the presence of the latter have no additional effect.

My experience in Latin America is this: Nobody can say that an epidemic was stopped. There were no controlled studies there. But over a million people have been completely vaccinated without any incident at all and, in the countries of Latin America where temperaments are mercurial, emotions excitable, and health departments political, I'm sure that if an incident had occurred it would have come to our notice and to everybody else's notice. The conversion rates in Colombia and other places are remarkably close to the conversion rates we achieved in Minnesota. I've gone over the Costa Rica data carefully. I am satisfied that they have done a good job of surveillance, because the central nervous system disease that they have categorized at the end of a year's observation is remarkably the same in content to what we have found in Minnesota.

There are a lot of important things we don't know about this vaccine. Although we know that it's a good antibody producer, we can't actually say it will protect against polio until we can measure it against a direct challenge by the disease. This has not yet been done. Reasoning by analogy, however, we can assume, because of the antibody responses, that it should protect against the direct challenge by polio itself.

I am not sure that we yet know the optimum dosage schedule. It may be that one feeding is not sufficient, just as one wild polio infection may not completely immunize a child. I don't think we are quite sure how long the immunity is going to last. As Dr. Cox stated, it is not going to be lifelong, but what it's going to be in terms of years I don't think anybody can tell. These are things for the future to disclose.

In the meantime, let me assure you from my direct experience in Minnesota and from my vicarious but close contact in Dade County, Fla., and from my experience in South and Central America, that these strains are safe. From the laboratory standpoint they are potent antigens. The Cox live poliovirus vaccine is worthy of the consideration of people who are working in preventive medicine and public health. I do hope that more people will pay more and more attention to their use in this country, because it is the data gathered in this country that will ultimately count in granting the license and in gaining universal use of his particular preparation.

Dr. RATNER. We have attempted in this panel discussion to present you with a sober, candid exposition of the facts as we know them and as they relate to current questions surrounding decisions to be made in the use of Salk, and oral live virus vaccines. I hope you recognize that the panelists have shown unusual freedom from extra-scientific considerations and pressures.

During the 1960 polio season, epidemics may occur. To dramatize the urgency of the decision involved, remember the futility of using the Salk vaccine to combat epidemics despite its proven ineffectiveness in epidemics simply because it is the only vaccine available to us. An objective and fearless evaluation of the Salk vaccine is needed, for this is the necessary ingredient of an intelligent decision as to when the live virus vaccine should be licensed. Obviously, if the Salk vaccine is simultaneously safe and highly effective, the U.S. Public Health Service can take its time about licensing the live virus vaccine. If, on the other hand, polio and polio epidemics remain with us, and children become paralyzed despite three, four, five, and six inoculations of Salk vaccine, and vaccinees die, we cannot take our time.

[Reprinted from the Journal of the American Medical Association, Feb. 25, 1961]

POLIOMYELITIS IMMUNIZATION

TO THE EDITOR: If we assume that a yearly booster injection of poliomyelitis vaccine is needed because of the lack of potency in the present injectable vaccine, are we not inconsistent in principle to say that the patient who had the last injection—be it the third or the fourth—2 to 4 years ago can get the same protection by only one booster injection as the one who had the last injection 1 year ago? Furthermore, is it true that by next year the oral vaccine will have solved this problem.

M.D., *Wisconsin.*

ANSWER: The question rightly recognizes that recommendations of additional injections of the Salk vaccine relate to its low and variable potency. On April 19, 1955, only 7 days after the Francis report and the promulgation of minimal requirements for the licensing of the vaccine, the U.S. Public Health Service found it necessary to reduce potency standards by two-thirds. The problem worsened late in 1955 when, to insure safety, it was necessary to introduce additional filtration during inactivation. This additional filtration resulted in a 10- to 30-fold loss in antigen (Illinois Med. J. 118: 83–93, 1960; and 118: 160–168). Kelly and Dalldorf (Amer. J. Hyg. 64: 243–258, 1956) reported a 600-fold variation in the potency of the Salk vaccine on the open market from negligible potency upward. The difficulty became enhanced when, on May 17, 1957, the Division of Biological Standards permitted lots of vaccine which had failed to meet minimum potency requirements to be retested, so that if the manufacturer then obtained a positive potency test, earlier negative tests could be disregarded. It is now generally recognized that much of the Salk vaccine used in the United States has been worthless.

It follows, then, that the true issue for the physician and patient is not how many injections, or how often, but whether the vaccine given or to be given contains dependable amounts of viral antigen. With the Salk vaccine this cannot be determined because it is an unstandardized product of an unstandardized process. Therefore, for the physician who prefers to know what he is giving, the choice rests with either the recently licensed killed poliovirus vaccine which is concentrated to a known and optimal weight of inactivated virus antigen, and which has substituted the Parker strain for the dangerous Mahoney strain, or with the standardized attenuated live poliovirus vaccine promised for next spring. In either instance, a complete course of vaccination is indicated, irrespective of the number of injections of the Salk vaccine given.

HERBERT RATNER, M.D.

[From the Chicago Sunday Tribune magazine, Mar. 5, 1961]

THE TRUTH ABOUT THE POLIO VACCINES

Do Salk Shots Really Prevent Polio? Should We Keep Using Salk Inoculations? How Good Are the New Oral Vaccines? Here Are the Facts

(By Joan Beck)

Behind glowing reports of the Salk polio vaccine's success and even rosier predictions about the new, live, oral Sabin vaccine rages a storm of medical controversy that seldom reaches the ears of parents.

Many serious criticisms have been leveled at the Salk vaccine. These are now being acknowledged—at least indirectly—in announcements praising and promoting the new oral vaccines.

Yet all is not yet sweetness and accord among developers of the live, oral vaccines, either. At least three different types have been developed and—according to their producers—proved safe and effective in tests, chiefly in foreign countries, but also in the United States.

One of these new oral vaccines, developed by Dr. Albert Sabin with National Foundation research funds, has been OK'd by the U.S. Public Health Service for manufacture. But there are problems remaining to be solved in its production and, according to acommittee of experts headed by Dr. Roderick Murray, of the National Institutes of Health, dangers to be considered in its use by the general public (although it has been given to a reported 77 million Russians and to at least 300,000 Americans. Russian Prof. Mikhail Chumakov, who directed a 2-year program of inoculations with the Sabin vaccine, says he is convinced polio epidemics have been eliminated in the Soviet Union). Licensing is not expected until this spring. Quantities of the vaccine are not expected to be available for communitywide use until November.

"Both 'live' (Sabin) and 'killed' (Salk) polio virus vaccines will be needed to combat poliomyelitis in the near future, U.S. public health officials declared at the AMA clinical meeting," the Journal of the American Medical Association reported in December 1960. "The new oral poliomyelitis vaccine developed by Dr. Albert Sabin and approved for future use in this country will not be the complete solution as far as can be predicted now, the Public Health Service experts said."

Evaluating the true effectiveness of the Salk vaccine and the new oral vaccines has been difficult for several reasons. Polio is a relatively rare disease in the United States. Because so few persons get it in its paralyzing form, success of an immunizing agent is hard to determine.

The definition of polio also has changed in the last 6 or 7 years. Several diseases which were often diagnosed as polio are now classified as aseptic meningitis or illnesses caused by one of the Coxsackie or Echo viruses. The number of polio cases in 1961 cannot accurately be compared with those in, say 1952, because the criteria for diagnosis have changed.

Even the Salk vaccine itself is not a constant, standard product. Since the first field trials of 1954, the vaccine has been changed several times. The first alternations were aimed at increasing the vaccine's safety by changing the method of killing the polio virus and by adding an extra filtration step. Newer changes are intended to increase the vaccine's effectiveness. The success of the Salk vaccine necessarily varies, depending upon which Salk vaccine is being considered.

Ever since the public was first informed about the Salk vaccine in the Francis report of April 12, 1955, the National Foundation has praised its effectiveness and urged parents to have themselves and their children vaccinated. Although some physicians remained skeptical about the original theories behind the vaccine, about the techniques used in its evaluation, and about its success in combating polio, these objections seldom reached the general public. With the resurgence of paralytic polio in 1958 and 1959, the criticisms increased.

These views were summed up by five experts in a panel discussion on the "Present Status of Polio Vaccines" presented before the Illinois State Medical Society in Chicago, in May 1960, and published in the August and September issues of the Illinois Medical Journal. To make parents aware of the controversy about the Salk vaccine and the problems involved in developing an effective oral vaccine against polio, here is a report of that discussion:

Moderator of the panel was Herbert Ratner, M.D., director of public health in Oak Park, and associate clinical professor of preventive medicine and public health, Stritch School of Medicine, Chicago.

Dr. Ratner noted the upward trend in polio, particularly in the paralytic form, in the United States during 1958–59. He quoted Dr. Alexander Langmuir, in charge of polio surveillance for the U.S. Public Health Service, as saying this resurgence is "cause for immediate concern."

"In the fall of 1955, Dr. Langmuir had predicted that by 1957 there would be less than 100 cases of paralytic polio in the United States," commented Dr. Ratner. "Four years and 300 million doses of Salk vaccine later, we had in 1959 approximately 6,000 cases of paraltic polio, 1,000 of which were persons who had received three and more shots of Salk vaccine. Salk vaccine hasn't lived up to expectations."

Dr. Sabin says the number of cases in 1960 was less than in 1959, but that 23 percent are now occurring in persons who have had three or more doses of Salk vaccine.

Dr. Ratner next reviewed some basic facts about polio. Paralytic polio occurs in cycles and was in a natural decline when the Salk vaccine was introduced in 1955, he pointed out.

Prior to the introduction of the Salk vaccine, the National Foundation defined an epidemic as 20 or more cases of polio per year, per 100,000 population. Now, an epidemic is defined as 35 cases per year per 100,000. This change has resulted in a statistical—but not necessarily a real—drop in polio epidemics.

For every case of known paralytic polio, there are about a thousand "subclinical polio infections," so mild they pass unnoticed, Dr. Ratner explained. These mild cases account for the high degree of natural immunity in adults You can have a polio infection in the intestines without having paralytic polio or nonparalytic polio with enough symptoms to be diagnosed.

The theory of the Salk vaccine, made with killed polio virus, is that it will produce enough antibodies circulating in the blood to neutralize polio-virus before it can reach the central nervous system. But "one of the major disappointments of the killed vaccine" is that these circulating antibodies do not protect an individual against getting a polio infection in the intestines, nor its breakthrough into the circulatory system, said Dr. Ratner. Protection against paralysic polio depends upon the presence of enough circulating antibodies to offset the virus, he explained.

Discussing the "very misleading way" in which the Salk vaccine data has been handled, was Bernard G. Greenberg, Ph. D., head of the Department of Biostatistics of the University of North Carolina, School of Public Health, and former chairman of the Committee on Evaluation and Standards of the American Public Health Association.

"There has been a rise during the last 2 years in the incidence rates of paralytic poliomyelitis in the United States," stressed Dr. Greenberg. "The rate in 1958 was about 50 percent higher than that for 1957, and in 1959 about 80 percent higher than that in 1958. If 1959 is compared with the low year of 1957, the increase is about 170 percent.

"As a result of this trend in paralytic poliomyelitis, various officials in the Public Health Service, official health agencies, and one large voluntary health organization have been utilitizing the press, radio, and television and other media to sound an alarm bell in an heroic effort to persuade more Americans to take advantage of the vaccination procedures available to them," said Dr. Greenberg.

"Although such a program might be desirable until live virus vaccines are available to us on more than an experimental basis, the misinformation and and unjustified conclusions about the cause of this rise in incidence give concern to those interested in a sound program based on logic and fact rather than personal opinion and prejudice.

"One of the most obvious pieces of misinformation being delivered to the American public is that the 50-percent rise in paralytic poliomyelitis in 1958 and the real accelerated increase in 1959 have been caused by persons failing to be vaccinated. This represents a certain amount of doubletalk and an unwillingness to face facts and to evaluate the true effectiveness of the Salk vaccine," said Dr. Greenberg.

The number of persons over 2 years of age in 1960 who have not been vaccinated cannot be more and must be considerably less than the number who had no

vaccination in 1957, Dr. Greenberg pointed out. Then how can it be claimed that it is the large number of unvaccinated persons who are causing the increase in polio, when there were a larger number of unvaccinated individuals in 1957 when the vaccine was given credit for reducing rates of the disease?

"A scientific examination of the data and the manner in which the data was manipulated will reveal that the true effectiveness of the present Salk vaccine is unknown and greatly overrated," Dr. Greenberg stressed.

Why was there such a tremendous reduction in reported rates of paralytic polio in 1955–57? Much of this highly publicized decrease was a statistical illusion, said Dr. Greenberg.

Prior to 1954, any physician who reported a case of paralytic poliomyelitis was doing his patient a favor because funds were available to help pay his medical expenses. At that time, most health departments used a definition of paralytic poliomyetis which specified "partial or complete paralysis of one or more muscle groups, detected on two examinations at least 24 hours apart." Laboratory confirmation and the presence of residual paralysis were not required.

In 1955, these criteria were changed. Now, unless there is paralysis lasting at least 60 days after the onset of the disease, it is not diagnosed as paralytic polio.

During this period, too, "Coxsackie virus infections and aseptic meningitis have been distinguished from paralytic poliomyelitis," explained Dr. Greenberg. "Prior to 1954 large numbers of these cases undoubtedly were mislabeled as paralytic polio."

Thus, because the definition of the disease was changed and two similar diseases virtually ruled out, the number of cases of polio reported was sure to decrease in the 1955–57 period, vaccine or not. Then, too, physicians are reluctant today to diagnose paralytic poliomyelitis in a vaccinated child without thorough laboratory tests, thus eliminating most of the false positive cases commonly reported in the pre-1954 period.

"As a result of these changes in both diagnosis and diagnostic methods, the rates of paralytic poliomyelitis plummented from the early 1950's to a low in 1957," said Dr. Greenberg. The recent increase in the disease, despite improved diagnostic methods, he believes, is due to a long-term, increasing trend in the occurrence of polio.

"Without doubt, the increasing trend has been reduced to some extent by the Salk vaccine" explained Dr. Greenberg. "Nevertheless, the Salk vaccine has limited effectiveness in its ability further to reduce this trend. * * * Any future substantial reduction in this trend will require a more potent vaccine, not simply vaccinating more people.

"Today it may be a serious mistake to be ultraconservative in accepting the various new live vaccines under the impression that there is no hurry because an almost equivalent immunizer exists in the Salk vaccine. A delay in accepting and promoting better vaccines will be a costly one. There must be immediate pressure applied to determine whether or not the new vaccines are more effective, so that we do not cling, for sentimental or personal reasons, to an older vaccine whose true effectiveness is today unknown."

The most accurate way we have of determining the effectiveness of vaccine (except by direct exposure to the disease) is to measure the levels of neutralizing antibodies in the blood, explained Herald R. Cox, Sc. D., director of virus research at Lederle Laboratories and president-elect of the Society of American Bacteriologists. We do not know, he said, the exact level of antibodies necessary to protect against paralytic polio.

Herman Kleinman, M.D., an epidemiologist from the Minnesota Department of Health, pointed out that in antibody studies on children who have received three or more doses of Salk vaccine, he has found more than half do not have antibodies to two of the three types of polio strains used in the Salk vaccine. Twenty percent lack antibodies to a third type.

"This is a very disturbing fact," said Dr. Kleinman. "If polio antibodies mean anything in respect to protectiion, then I am forced to conclude that much of the Salk vaccine we have been using is useless."

Dr. Kleinman also commented on the "changing concept to polio" and said physicians were reluctant to diagnose the disease without overwhelming evidence. He called the insistence on a 60-day duration of paralysis in defining paralytic polio "silly."

Dr. Cox, who has worked in the virus field since 1929 and was the first person to prove that a killed vaccine could be made, commented on some of the problems of producing a potent, killed-virus vaccine.

"We are now learning, not only in the United States, but in Israel, England, and Denmark, that the killed product does a fairly good job of producing antibodies against type II poliovirus," said Dr. Cox. "But type II represents only about 3 percent of paralytic cases throughout the world. The killed vaccine does a poor job against type I, however, which causes 85 percent of paralytic cases, and against type III, which causes about 12 percent.

"In other words, the killed vaccine is doing its best job against the least important type. It took time to find this out. It was proven in Israel in 1958, when it had its big type I epidemic. They did not see any difference in protection between the vaccinated and the unvaccinated. Last year in Massachusetts during a type III outbreak, there were more paralytic cases in the triple vaccinates than in the unvaccinated."

There have been problems, too, in the production of the killed Salk vaccine. An extra filtration step was added in November 1955, Dr. Cox said, "because the amount of formalin used did not inactivate the poliovirus. We found residual live virus for as long as 42 consecutive days of inactivation."

Dr. Cox went on to assert that the second filtration step was "picked out of thin air with no experimentation to back it up," and that the extra filtration cut down on the effectiveness of the vaccine.

Mass vaccination with the Salk product started in April 1955 and by April 26 there were reports of paralytic polio among vaccinated children, with deaths occurring in Idaho and California. Then came cases of polio among family members of vaccinated children. Live virus was discovered in the supposedly killed vaccine, although it had been produced by the Salk procedure.

Dr. Ratner cited numerous instances in which live viruses were found in vaccine which was presumably safe, even in Dr. Salk's own standard vaccines. "It should be stressed that safety testing was inadequate when Dr. Salk developed the vaccine and when the vaccine was commercially prepared for the field trials of 1954 and for licensing and use in 1955," said Dr. Ratner. He added that in current vaccine, potency has been sacrificed for safety and that "at present, epidemiologic methods employed by the U.S. Public Health Service to assure safety of the vaccine are inadequate."

Should the Salk vaccine continue to be used?

"There is no known way of preventing polio with a licensed product at the present time except through the use of the Salk vaccine," answered Dr. Kleinman. "While I am an agnostic about the effectiveness of the Salk vaccine, I still believe it does something in preventing paralysis. So we owe it to the public to recommend its use. On the other hand, if we are going to act not only as public health physicians but as scientists we must continue our investigations into the truth about the Salk vaccine. On the basis of the facts as I know them, we must look for something better."

Other panel members agreed, pointing out that because all of the facts about the Salk vaccine have not been made public, physicians and public health officials find it difficult to resist the great pressures of public opinion built up through an unprecedented publicity campaign urging the public to be vaccinated.

"Since nothing else is available, there seems to be no alternative but to push the use of it," commented Dr. Greenberg. "I don't think we should do so in ignorance, nor too complacently, believing that as long as we have something partially effective, there is no need to have something better. By being more cautious, we may make a mistake by accepting a better polio vaccine too slowly."

"When measured against its killed counterpart, a live virus vaccine (using modified virus which stimulate the production of antibodies but do not cause the disease) is always a superior vaccine," asserted Dr. Cox. He said it invariably costs much less. And it gives a higher degree of longer lasting immunity. Dr. Cox has developed a live vaccine which was tested on thousands of schoolchildren and adults last year in Dade County, Fla., and also on thousands of persons in foreign countries.

Another live, oral polio vaccine has been developed by Dr. Hilary Koprowski, of Philadelphia's Wistar Institute, and has been tested on approximately 9 million individuals.

Dr. Koprowski has challenged the U.S. Public Health Service decision last August to grant approval only to the Sabin vaccine. In a letter in the January 14 Journal of the American Medical Association, he said, "Although it is a step forward that the principle of live virus immunization in poliomyelitis has

at last been officially accepted, I am taking strong exception to this exclusive endorsement of one set of strains. In my opinion, such an endorsement should evoke a protest from individuals who believe that fair scientific judgment should be the basis for decisions affecting the physical welfare of man."

Amplifying his letter, Dr. Koprowski said, "It is my belief that Government decisions, which are not based on proper evaluation of scientific data, are prompted by either poor choice of scientific advisers or by cryptic reasoning and that such ill-advised decisions could lead to development of an unhealthy climate in which scientists will see their contributions trampled upon by administrative agencies."

Discussing the development of live, oral vaccines, Dr. Cox explained, "Polio is unique because many more people get the infection than the disease." The problem in producing a live vaccine is to modify, or tame, the virus so that they will produce a mild infection strong enough to stimulate the formation of antibodies, but not the disease itself. A complicating factor in taming polio virus, is that three separate, tamed strains have to be developed to produce antibodies against the three chief types of polio.

A killed vaccine, such as the Salk, does not immunize an individual against an infection of polio virus in the intestines and, although it can induce antibodies in the blood, this does not prevent the individual from becoming a carrier and spreading poliovirus, explained Dr. Cox.

Individuals receiving the live, modified, oral vaccines also eliminate poliovirus from their bodies for several days or several weeks after vaccination, but these are the tame, modified strains. Family contacts and even other individuals in the neighborhood can also acquire an immunity from these tame virus, although they have never received the vaccine themselves.

However, some experts still fear that one of these strains may revert to its virulent type as it is passed from one individual to another, according to a report by Dr. Roderick Murray's committee, quoted in the October 15, 1960, issue of Modern Medicine. One solution, the committee suggested, might be to give the oral vaccine to entire communities in a brief time. This is a problem which must be solved before the Sabin vaccine is licensed.

Dr. Cox stated that using a live vaccine is the only way to eliminate wild, virulent polio strains in nature. Immunization with live vaccine probably would not protect a person for life, he added, but it would be cheap enough so you could afford it once a year.

Dr. Ratner compared Dr. Cox's vaccination figures with the 1954 field trials of the Salk vaccine. "The Cox live poliovirus has now been used by many investigators in over 2.5 million people, the other two live virus vaccines under study have been used in additional millions," he said. "Safety has been paramount in the minds of these investigators."

"On the other hand, Salk vaccine was used in only 400,000 persons in a single field trial which assumed safety and was primarily designed to determine effectiveness.

"An objective and fearless evaluation of the Salk vaccine is needed, for this is the necessary ingredient of an intelligent decision as to when the live virus vaccine should be licensed," Dr. Ratner continued. "Obviously, if the Salk vaccine is safe and highly effective, the U.S. Public Health Service can take its time about licensing the live virus vaccine.

"If, on the other hand, polio and polio epidemics remain with us and children become paralyzed despite three, four, five, and six inoculations of Salk vaccine and vaccinees die, we cannot take our time.

What should parents do?

Take the advice of their pediatrician or family doctor and not be stampeded by TV commercials or overly enthusiastic claims for vaccines. It is the individual physician who must decide which vaccine is safe and effective in what circumstances. But physicians must have honest, impartial, fully scientific information available to make this decision.

Currently, most physicians are still giving Salk vaccine shots. A few doctors do not. Some give them only if patients insist.

Once a live, oral vaccine is fully approved, it will be more effective than the killed Salk vaccine. Because of the doubt about the potency and effectiveness of the Salk vaccine in the past, a full course of the new vaccine will undoubtedly be recommended for everyone, regardless of how many Salk shots each individual has had.

[Reprinted from the Apr. 1, 1961, issue of the Saturday Review]

A Note on Polio

During the month of March 1961, the President of the United States, John F. Kennedy, announced that in the name of the American people he had authorized a gift of Salk "killed virus" polio vaccine to the people of Cuba to fight a polio epidemic on that unhappy island.

At least one physician who heard of the President's action wired the White House an immediate warning that the Salk vaccine is known to be ineffective in stopping the spread of a going epidemic.

The warning wire pointed out that the Russian wooers of Cuba's Fidel Castro are well acquainted with the superior effectiveness of oral live virus vaccines (the Sabin vaccine is only one of three) developed in this country and used widely in the U.S.S.R. but not yet available here.

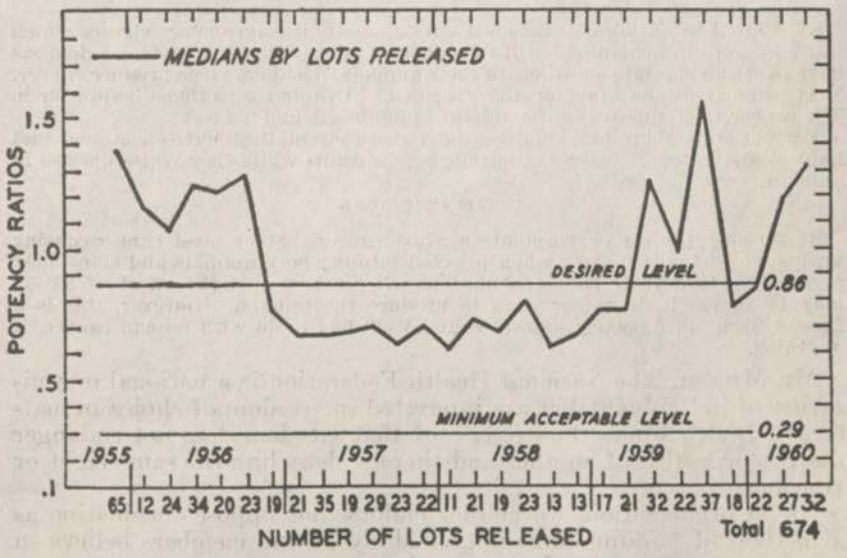
It was after that wire was delivered that President Kennedy asked the Congress to appropriate special funds for a standby supply of oral live virus polio vaccine.

Who gave the President the poor advice that led to the meaningless gift to Cuba?

SR's science editor does not pretend to know. But normal routes of responsibility in such matters lead to the U.S. Public Health Service, which, along with the National Foundation for Infantile Paralysis, has been pushing the Salk vaccine.

Around the same time that the President was being taken off balance, the Journal of the American Medical Association published, in answer to a doctor-reader's question, a statement by Dr. Herbert Ratner, public health officer of Oak Park, Ill. ("largest village in the world"), that "it is now recognized that much of the Salk vaccine used in the United States has been worthless * * * because it is an unstandardized product of an unstandardized process."

In a later issue of the Journal there appeared a series of articles in which three U.S. Public Health officials chorused that (1) the Salk vaccine's value had been greatly overestimated, and (2) the vaccine was still highly effective. Among the documents offered was the following graph, which shows the Salk vaccine's effect on type 1 polio—the type that causes most polio epidemics—below "the desired level" most of the time since the vaccine was issued in 1955:



[From the Chicago Sun-Times, Apr. 16, 1962]

POLIO VACCINE VIRUS PUZZLES SCIENTISTS

(By Earl Ubell)

(Special to the Sun-Times)

ATLANTIC CITY, N.J.—Those strange viruses found floating alive in both live and killed polio vaccines display increasingly disturbing peculiarities.

The viruses, called SV–40, come from monkey kidney cells grown in test tubes. The cells produce polio virus for the vaccines. The name stands for Simian Virus No. 40.

A year ago, it was reported for the first time that something in the monkey cell cultures broth could cause cancer in hamsters. A few months ago, scientists at Merck & Co., identified that "something" as SV–40.

Now these same Merck researchers have found that SV–40 will grow in human tissue kept alive in a test tube. They will make the cells in those tissues multiply at a greater rate.

Sunday another report said SV–40 can get into human tissue cells growing in test tubes and change the microscopic chromosomes, destroying one of the 46. Chromosomes chemically control the growth, shape, and function of all animal and plant cells. In some cancers scientists have found a chromosome missing.

For the last 3 days, virus and cancer experts attending the annual session of the American Association for Cancer Research have pondered the meaning of this strange behavior. While the implications are obvious, there is no proof any of the conjectures are true.

CONJECTURE NO. 1

SV–40 may cause cancer in human beings. This, of course, is the most frightening idea. Millions of persons have received Salk injections (killing the polio virus does not mean killing SV–40.

Now the latest work shows that SV–40 can grow in the tissue of human beings and can make cells grow faster. But many viruses can do this without causing cancer. However, the report on the chromosomes makes the cancer possibility somewhat stronger.

CONJECTURE NO. 2

SV–40 will be harmless. This is a strong possibility since many viruses which cause cancers in one animal will not do so in other animals. In fact, scientists have to set up special conditions in their animals to make a virus produce cancer. Most often it means injecting the viruses at birth and sometimes before birth. The cancer then appears in the animal's middle age and old age.

Furthermore, there are hundreds of viruses circulating between animal and human populations. Some are harmless to humans while they cause disease in animals.

CONJECTURE NO. 3

SV–40 may protect or vaccinate against cancer. Since most cancer-causing viruses do their dirty work when injected into newborn animals and since most persons received their polio inoculations after this period the effect of SV–40 may be to vaccinate rather than to produce the tumors. However, this is a far-out idea, since nobody knows what SV–40 has to do with human cancer, if anything.

Mr. MILLER. The National Health Federation is a national organization of individuals that are interested in freedom of choice in matters of health where the exercise of that freedom does not endanger the life or health of another and thereby deny him the same right or freedom.

As an organization, we neither endorse nor oppose vaccination as a method of building immunity. Many of our members believe in vaccination. But all of our members are opposed to compulsory vaccination of those who do not believe in it where there is not a clear and present danger to the health of those who are vaccinated.

We delare that every vaccination law, nationally or locally, should have a protection of conscience clause.

Yesterday a witness told this committee that compulsory vaccination had not prevented epidemics of diphtheria in his home State. I believe he testified that there had been two epidemics of diphtheria in his State in the past 6 years. In some States without compulsory vaccination laws there have been no epidemics of diphtheria in the past 6 years.

There was no testimony that the epidemics broke out among unvaccinated segments of the population. If there is a compulsory vaccination law and if there is an epidemic, then we are left with the possibility that by itself vaccination may not be the whole answer to the prevention of communicable diseases in our country. There may be other factors such as sanitation and diet or unknown factors that influence immunity.

Certainly under the light of these facts, no one should insist on compulsion in a matter of vaccination. The present bill should emphatically protect the rights of those who do not want to be vaccinated if it is contrary to their belief, which belief should include but is not limited to religious belief. We are happy to note that in the testimony yesterday and today, not a single proponent of the bill has recommended that compulsion be required. We were gratified to hear the testimony and amendment suggestions by Dr. Stokes representing the Christian Scientists. We support their stand, that it is not enough to have the verbal assurance of the committee that no compulsion is intended or implied or needed, but that this guarantee should be clearly stated in the bill.

We endorse the testimony and support the amendment introduced by the Christian Scientists. We believe, however, it should extend to those who do not believe in vaccination even though it is not a part of their religion.

We respectfully suggest that on page 3, line 12, after the word "population," the following amendment be added:

Provided, That no one shall be required to be vaccinated or have their children or wards vaccinated if it is contrary to their belief, which belief may include but is not limited to religious beliefs.

In mass vaccination programs, it is common practice to omit or ignore information that is contraindicated in preventing the case for vaccination to the public. There is a tendency to let the experts make the decisions after which they summarize the evidence in such press release statements as, "absolutely safe," and other statements designed not to educate but to inspire confidence.

We point out that the tendency of the mass vaccination program is to "herd" people. People are not cattle or sheep. They should not be herded. A mass vaccination program carries a built-in temptation to oversimplify the problem, to exaggerate the bentfits, to minimize or completely ignore the hazards, to discourage or silence scholarly, thoughtful, and cautious opposition, to create an urgency where none exists, to whip up enthusiasm among citizens that can carry with it the seeds of impatience if not intolerance, to extend the concepts of police power, of the state in quarantine far beyond its proper limitations, to assume simplicity when there is actually great complexity, to continue support of a vaccine long after it has been discredited, to make a choice between two or more equally good vaccines and to promote one at the expense of the other, and to ridicule honest and informed dissent.

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In conclusion, John Stuart Mill has said:

> It often happens that the universal belief of one age—a belief from which no one was free, nor without an extraordinary effort of genius could, at that time, be free—becomes to a subsequent age so palpable an absurdity that the only difficulty is to imagine how such a thing can ever have appeared credible.

It is conceivable that a future age may disdainfully look at our preoccupation with vaccination. Indeed, the entire concept may be replaced with another approach. In such an eventuality, it would record as statesmen or tyrants the lawmakers who protected or trampled the rights of those who opposed the concepts for one reason or another in this age.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Mr. Miller, for your statement.

Mr. Staggers?

Mr. STAGGERS. I have no questions.

The CHAIRMAN. Mr. Younger, any questions?

Mr. YOUNGER. Yes.

Mr. Miller, that amendment that you proposed, wherein does that differ from the one that Dr. Stokes proposed here the other day?

Mr. MILLER. I do not have Dr. Stokes' amendment. But I believe that it carried the requirement that "if it was contrary to the religious belief."

Now, our statement is, "if it was contrary to their belief."

Mr. YOUNGER. In other words, where they say, "nothing in this section shall be construed to require a State or a community to have a compulsory intensive vaccination program or to prevent the exemption of any person and the child, infant, or ward of any person who object to immunization on religious grounds." You just say, "who objects to immunization."

Mr. MILLER. That would cover it or because "of their belief."

Mr. YOUNGER. Because of their belief. In other words, you would insert "because of their belief" instead of "on religious grounds."

Mr. MILLER. I think we have it phrased "because of their belief, which belief may include but is not limited to religious belief," because of the tendency of many people to assume that they are synonymous. "Belief" in a matter of this kind is assumed to be almost synonymous with "religious belief" and we wish to make the distinction.

Mr. YOUNGER. Do you know whether that clause is used anywhere?

Mr. MILLER. There is a precedent as some States are passing this amendment. In California in 1961 the legislature passed assembly bill No. 1940.

Now, this is from 3384 of the bill which was passed in the last legislature, I presume, in California.

Mr. YOUNGER. Is that in connection with public health legislation?

Mr. MILLER. This is immunization. Maybe if I read the whole thing it will be more clear. This is polio immunization for schoolchildren, No. 207. The bill was to prohibit any minor or adult from being admitted to a public or private elementary or secondary school unless the person had been immunized against poliomyelitis. It carried the exemption that was granted if "such immunization is contrary to his or her beliefs." It does not limit the belief to a religious belief.

Mr. YOUNGER. It applies to schoolchildren.

Mr. MILLER. Right.

Mr. YOUNGER. It is not in general on public health but refers to a requirement to enter school.

Mr. MILLER. Here, of course, the compulsory issue does not arise until they introduce their child in school. Might I point out that in New Jersey we had a very unfortunate situation arise because the amendment that we are suggesting was not included in the New Jersey compulsory law.

A boy's parents wanted to have him go to school. They didn't believe in vaccination. I don't know why they didn't believe. It wasn't reported in the paper, and they weren't members of the National Health Federation, but it was reported they didn't believe in it. The child couldn't go to school and finally after several months the parents forced the issue by taking the child to school and insisting that he stay.

Without any legislative precedence to go by, the board gave them the fantastic alternative of signing a statement that if it was contrary to their religious belief, the child could come to school. Well, they pointed out to the board it was not contrary to their religious belief. In a way they were being forced to sign a statement that was completely false as to their religious belief.

Now, were the amendment made to just include beliefs, then this very rare instance of opposition according to conscience would be solved so that the administrator on a local level wouldn't be faced with this decision because it would be clear that it is a matter of conscience and not religion.

Mr. YOUNGER. That is all, Mr. Chairman, except that I have a letter here which came to me this morning from Mr. and Mrs. Magee of Joshua Tree, Calif., in opposition. I wonder if I could ask that it be entered into the record? Would it be all right to put it in?

The CHAIRMAN. Yes.

Mr. YOUNGER. They are members of Mr. Miller's organization. Apparently that is the National Health Federation?

Mr. MILLER. That is correct.

Mr. YOUNGER. They are members of your organization, apparently. It is not from my district, but they wrote to me as a member of the committee and asked that their letter be made a part of the record.

The CHAIRMAN. Let it go in the record following this testimony of Mr. Miller.

(The letter referred to follows:)

JOSHUA TREE, CALIF., *May 11, 1962.*

Representative J. ARTHUR YOUNGER,
House Office Building, Washington, D.C.

DEAR MR. YOUNGER: Re, bill, H.R. 10541, red light bill. Representative Oren Harris, Arkansas.

Please list us as looking with disfavor on this bill, known as Vaccination Assistance Act of 1962 for control of polio and against other diseases.

The good of such procedure is controversial and the cost excessive.

Yours truly,

CHARLES B. AND FEMIE MAGEE.

The CHAIRMAN. Mr. Hemphill?

Mr. HEMPHILL. Thank you, Mr. Chairman.

Suppose it were in the national interest to vaccinate everybody in a given area. Would your organization oppose that?

Mr. MILLER. I believe, Representative Hemphill, that our statement is that we believe in freedom of choice in matters of vaccination where that freedom does not endanger the life or health of another.

Now, your analogy is not clear enough so that I could determine whether the national interest would be an arbitrary decision of some person in office or whether the national interest would be, that if by refusing to be vaccinated, this group of people were endangering, clearly, the life and health of those who were vaccinated.

Now, we believe that freedom should be the rule up to the point where safety is endangered and at this point we would favor the national interests, I think, as you expressed it.

Mr. HEMPHILL. Well, you seek to hide behind the theory of an arbitrary decision, but I think that you say on the one hand it might be an arbitrary decision. On the other hand, you say that the national theory of safety. I am thinking of the fact that the area seems to be getting and epidemic and the health authorities move in and say everybody ought to be vaccinated and someone says, it is against my religion. You wouldn't carry it that far, would you, where other people would be affected, their lives and health, if an epidemic was allowed perhaps to continue?

Mr. MILLER. Now I think you are getting far more specific and this I can answer very clearly.

The power of the State to quarantine is an obvious proper function of the State. We have no quarrel with this. The power of the State to vaccinate is a questionable power and a questionable extension of the power of quarantine which is a proper power.

Now, there has been no testimony before this committee and to my knowledge there is no testimony available which indicates that an unvaccinated person in any epidemic area is a hazard to those that are vaccinated.

Mr. HEMPHILL. No; and there has been no testimony before this committee either that the foods that you people say you want to substitute for this health preventative we are studying here can be gotten to the people. I am very much interested in your theories because I think you have something, but I think you have carried it to the extreme in saying that this is a substitute for something like the vaccination because the people—the reason we have to have a vaccination. that if, if you heard the testimony, a lot of people can't even afford the vaccination, can't afford the food which we would like them to have, diet. There I agree with you on the diet. Here we have a problem of stamping out disease and there has been nothing said here that says it cannot be accomplished.

Mr. MILLER. Congressman, I am not quite sure what you intend by "we people" and our belief in foods. In my testimony there is no statement on foods which I think indicates the stand we take on food. My introduction of Dr. Sandler's book, "Diet Prevents Polio," and the other articles I listed on page 17 was to point out that there is a far from unanimous view within the medical profession on the subject of vaccination. We do not as an organization endorse the views of Dr. Sandler any more than we endorse or oppose the views of vaccination. We felt that his booklet with his

thesis would be helpful. It is one of the most enlightened books that has been written in the matter of diet in relationship to polio, and we submitted it for the record with that intent in mind, not with the idea of defending his theory.

Mr. HEMPHILL. I thank the gentleman. I am going to read this with a great deal of interest because I am very much interested in what you have to say.

Mr. MILLER. I appreciate your questions.

Mr. HEMPHILL. Thank you, Mr. Chairman.

The CHAIRMAN. Mr. Nelsen?

Mr. NELSEN. No questions.

The CHAIRMAN. Mr. Miller, thank you very much for your testimony to this committee on this subject.

The next witness will be Dr. Miles H. Robinson.

Dr. Robinson, we will be glad to have your statement.

STATEMENT OF DR. MILES H. ROBINSON, POTOMAC, MD.

Dr. ROBINSON. Mr. Chairman and members of the committee, I am Miles H. Robinson, a graduate of the University of Pennsylvania Medical School in Philadelphia, and for the last 20 years I have been in the practice of internal medicine in Washington State and in Maryland with the exception of 4 years teaching and doing medical research in physiology and pharmacology at Vanderbilt Medical School in Nashville, Tenn., and at the University of Pennsylvania Medical School.

I am appearing in the capacity of an independent physician in support of this bill, H.R. 10541. I believe the country needs this bill not only because our public health officers have a long and distinguished record of public service and can be trusted with additional Federal funds to do their good work, but also because we have reached a point where the Federal Government is justified in playing a more active role in health matters, especially in furnishing unbiased information to the public.

Private medical enterprise, generally speaking, has become too narrow in its outlook, in both the prevention and treatment of disease, and the Federal Government is the only agency with enough power and enough inherent responsibility to the people to coordinate properly what is known about health and disease, to educate the public, and to control a number of abuses increasingly inflicted on the public by various private interests.

The most recent strong evidence to show what the national government of a nation can do, and which only it can do, for health is described in Time magazine for April 20, 1962. On page 37 it is reported that Great Britain has just levied a 15-percent tax on candy, ice cream, and soft drinks specifically aimed at bringing in $140 million a year which, the article states, is just the amount of money Britain's National Health Service pays the dentists in their effort to check the damage to English teeth caused by the consumption of candy and other sweet stuffs.

I am attaching a photocopy of this Time article to this statement.

(The document follows:)

[From Time magazine, Apr. 20, 1962]

GREAT BRITAIN

THE LOLLIPOP BUDGET

Britons gobble more candy per capita (8 oz. weekly) than any other people in the world. As a result, they also have more toothaches than most—which has no apparent effect on candy consumption but causes a perpetual headache in the higher echelons of government, since the great majority of Britain's population gets its teeth fixed for nominal fees by the National Health Service. Though it collects taxes on every other luxury from dancing to death, the Government has never levied a tax on sweets, as the British call their favorite vice.

Last week Chancellor of the Exchequer Selwyn Lloyd, a man never hitherto famed for political audacity, slapped a 15-percent tax on candy, ice cream, and soda pop. Britons, shocked to their cavities by what many soon called the lollipop budget, protested that it was a "tax on children," though craving for candy knows no age limits. The Government will collect $140 million a year from the sweet-tooth tax—which makes it a classic bit of budget balancing, since the Government now pays exactly $140 million yearly to dentists to repair the damage.

Dr. ROBINSON. Lest the committee surmise that this British legislation is merely a shot in the dark, I state with confidence that every well-informed dentist and doctor in this country has known for many years that the high intake of sugar in food is far and away the most important cause of tooth decay; that experimentally, the standard method for producing tooth decay in animals is merely to feed them sugared food. Recent studies at the National Institutes of Health have also implicated our high sugar consumption with our high incidence of health disease.

The significance of the British achievement in striking at the real cause of a disease, in this case disease of the teeth, in contrast to the situation in this country where the public is given practically no adequate information on this particular disease, the significance is that only the Government is powerful enough to oppose a powerful private group like the sugar industry which has immense funds to advertise its products and to suppress the facts of health.

In other words, the Federal Government should participate in health matters in any area where private medical enterprise has exhibited unreasonable delay, as it has in this case about sugar over many years, and lack of interest in getting done the tasks which must be done to make the people of this country healthy and strong.

With regard to the amendment to this bill specifically excluding compulsory immunization, I believe this should be done in order to preserve to some extent a balance of power between the orthodox and unorthodox elements of our population, the competition between which is one of our best guarantees of progress. In fact, I am not certain just which is really the more orthodox or the more conservative, the Christian Scientist who depends upon the ancient strength of prayer to keep himself in tune with the universe or the medical doctor who gives the tranquilizers which constitute over one-third of all the drugs consumed in this country today.

People such as the Christian Scientists, or the hygienists, who are determined to depend as much as possible on simple, wholesome methods to insure health should have the privilege of demonstrating the worth of their system to their followers and to others. They cannot

do this if they are forced to submit to medical procedures, which procedures can then take more or less credit for successes which these people may achieve by their own methods. So long as their abstinence from immunization does not imperil the safety of others, it should be protected for the sake of progress, and as a check upon the natural tendency to abuse the principle of mass medication which, incidentally, may become very expensive in the future.

Such amendment specifying no compulsion will, I believe, actually strengthen the bill because it will make very clear to the public, as nothing else could, that the Government intends to win its case for immunizations by fair persuasion and argument while holding out at all times the hand of tolerance to the independent citizen.

Such a policy is our strength, by which we gain the allegiance of hearts and minds both at home and abroad.

I had one additional word to mention. It should be emphasized that the hazards of these new vaccines like the first one for polio have turned out to be much greater than anything we have experienced before, at least in recent times. I recently received a form letter from the Cutter Laboratories in California which has been mailed to every physician in the country (the essential contents of the letter were also published in Business Week Magazine, Feb. 24, 1962, pp. 139–146), stating that they have now settled out of court over $3 million in damages for deaths and paralyses that followed their defective vaccine. This lends added weight to the beliefs of any individuals who have reservations about being given these vaccines.

Thank you very much.

The CHAIRMAN. Dr. Robinson, thank you very much.

Mr. Hemphill?

Mr. HEMPHILL. No questions, thank you, Mr. Chairman.

The CHAIRMAN. Mr. Younger?

Mr. YOUNGER. Just one question, Mr. Chairman.

On the first page, third paragraph, you say—

to control a number of abuses increasingly inflicted on the public by various private interests.

Outside of the sugar industry interests, I gather from your statement that you include the sugar interests. Now, what other interests did you have in mind?

Dr. ROBINSON. Yes, sir. I am glad to answer that. The other serious situation in this country is the degermination of the flour; that is, taking the vitamins and the minerals out of the flour, which is done by the flour industry because the flour then keeps on the shelf and they make a double profit selling all those vitamins to the livestock industry in order to keep the animals healthy.

Now, that has a very serious effect on the health of the Nation and has for years. Dr. Harvey Wiley, the first administrator and the founder, practically, of our Food and Drug Administration, did his unsuccessful best to stop the further emasculation of flour by bleaching processes.

The reason that Nutrilite and these other vitamins have such a tremendous business is because they help put back B vitamins into the population. We have greater nervousness in this country, among other results, and heart disease is also related to the lack of B complex due to the injury to this flour.

So that is another thing. I don't mean that it is an intentional, deliberate harm inflicted by the flour industry. It is just a thing they drift into. The same as the Coca-Cola people and the sugar people, they drift into this and find that they cannot afford to care and do not care what the effect is on the health of the Nation.

Mr. HEMPHILL. Will the gentleman yield to me at this point?

Mr. YOUNGER. I will be happy to, sir.

Mr. HEMPHILL. Then under the theory would cornbread be more nutritious and have more vitamins than white loafbread?

Dr. ROBINSON. Well, if you get your cornbread made in the South where a tradition still exists for preserving the germ in the corn meal, or have it ground by a mill which does not take the germ out, it is infinitely more nutritious. For example, there is a company in North Wilkesboro, N.C., that makes small electric mills especially for people who want real corn meal. But you go to any store in this country and try to buy corn meal and almost every bit of it is degerminated. It has had—it is like taking the yolk out of the egg. It has had the good taken out, and that is given to the animals and we get what is left.

Mr. HEMPHILL. Thank you, sir.

The CHAIRMAN. Will the gentleman permit interruption?

Mr. YOUNGER. Yes.

The CHAIRMAN. Do you mean by that that they take the kernel out of the grain?

Dr. ROBINSON. Well, sir, they take out what the mice especially prefer to eat, which can be seen when you look through the corn crib and look at the little kernels of the corn. He eats that little nugget at the point of the corn kernel which contains all the best of the corn. This is what the millers take out, and they have been doing this for 90 years since the roller mill was invented in Austria.

The CHAIRMAN. Since when?

Dr. ROBINSON. About 90 years, since the roller mill was invented in Austria, which allows high-speed separation of the different components of the grain.

The CHAIRMAN. That is very interesting information indeed. I don't think I knew that before.

Mr. YOUNGER. That is quite an addition to our testimony. You would advocate whole wheat flour, then.

Dr. ROBINSON. Yes, sir, and there is ample precedence for this. In World War I Dr. Hinhede, of Denmark, was given power to save the Danish people from starvation and he told them to sell their animals to the Germans and to eat the whole grain themselves. It is in the record of the medical annals that the health of the Danes was never higher at any time than when they went on whole grain during that war.

Furthermore, during the last war in England, because the British had less in the way of food, they increased the amount of vitamins that were left in the flour purposely to sustain the strength of the nation but then when the war was over, they dropped back.

Mr. HEMPHILL. Will the gentleman yield to me?

How about hominy grits? They serve hominy grits down here and I eat them about every morning. Is yellow hominy better than white?

Dr. ROBINSON. No, sir. It would not matter as to the color. What matters is, did they or did they not take the germ out of that kernel of

corn? You cannot tell that by looking at it, but you can tell by tasting it.

Mr. HEMPHILL. What is the difference in the taste?

Dr. ROBINSON. Well, it just has a better taste, a nutty flavor.

Mr. HEMPHILL. I agree cornbread is a lot better than any other bread, but I didn't know about hominy. You can taste the difference in hominy grits, too?

Dr. ROBINSON. Well, sir, if you have them both together, those made from natural whole corn and those made from degerminated corn, you can.

Mr. HEMPHILL. I thank the gentleman. I am very much interested in what he has to say. Thank you, sir.

Mr. YOUNGER. Thank you very much for your contribution which is something new in what we have had in the committee prior to this time.

Thank you, Mr. Chairman.

The CHAIRMAN. Well, I suppose the thing we should do is go back to the old gristmills where we carried the corn for a mile and let them take so much out of each bushel for grinding it up for us.

Dr. ROBINSON. Well, sir, I think we will come to that because electric power in every home makes it possible. There is also the factor of having the flour freshly ground, in which state it is more nutritious and has a better flavor. We have been grinding our own grain for 10 years and making all our own bread also, and quite a few other people have.

The CHAIRMAN. Where do you get your grain?

Dr. ROBINSON. You can get it everywhere. You can have 100 pounds of grain shipped from California, or any State, to any other State for $5. You buy the straight wheat or straight corn.

The CHAIRMAN. I am talking about cornbread now. I am talking about taking the germ out of the grain of corn.

Off the record.

(Discussion off the record.)

The CHAIRMAN. Well, thank you very much. It was a very interesting discourse. We are glad to have had you with us.

Dr. ROBINSON. Thank you.

(The following additional material was later submitted by Dr. Robinson:)

SUPPLEMENTAL STATEMENT OF MILES H. ROBINSON, M.D., IN SUPPORT OF H.R. 10541

Mr. Chairman and members of the committee; In order to substantiate further the testimony I presented to you yesterday that our Federal Government is fully justified in playing a larger role in health matters, I enclose additional photostatic evidence.

In my first statement I cited, as an example, diseases of the teeth, and called attention to the legislation just enacted by the British Government to curb these diseases at their source by a tax on sweetstuffs.

I pointed out that we in this country are hamstrung by the narrow outlook of our private medical enterprises as a whole and by the all-powerful advertising dollar of the sugar and other industries affecting health.

To document the charge of narrow professional outlook, I now offer the enclosed photostat of a news article from the Washington Post published March 14, 1961, describing a report made by a trustee of the American Dental Association at the dentists' annual convention here in Washington. This report cited a "$500,000 survey" of the Nation's dental health made by the American Council on Education.

This council, not a Federal agency, informed me this morning that the foregoing survey was jointly financed by the American Dental Association and by the American dental schools. According to the article, the survey found that our Nation's dental health was in dire state for four chief reasons, all of them concerned with not going to dentists for enough treatment.

Yet the real cause of the majority of tooth disease, our high sugar intake, well known to the dentists who financed this survey, is completely ignored.

This survey, initiated, financed, and publicized by organized dentistry, demonstrates, as I testified yesterday, that it is high time for the responsible power of the Federal Government to intervene and to control irresponsible private enterprise in the field of health. The situation is the same in the broader medical field, evidence for which, I would be glad to submit.

H.R. 10541, which emphasizes a Federal program of information about vaccines to the public, is a step in the right direction. The public today certainly cannot expect to get unbiased information about health from organized dentistry, organized medicine, the food industry, or the drug industry.

We do not need to go to state medicine like the British. Our resources should make it possible to devise a program as good as or better than theirs, under which we can have both freedom and quality in medical care.

Wherever a private industry irresponsibly promotes products detrimental to health, it should be curbed by some combination of regulation and taxation; and we should set up an effective balance of power between private and public medical enterprise which will allow truth about health to raise its head again, so people can see it and can know how to strengthen their physical and mental vitality.

(The article from the Washington Post referred to is as follows:)

[From the Washington Post, Mar. 14, 1961]

SEVEN HUNDRED MILLION CAVITIES—TEETH OF AMERICANS IN DIRE STATE, SURVEY REPORT TELLS DENTISTS HERE

(By Nate Haseltine, Staff Reporter)

The dire state of the Nation's dental health as uncovered by a 3-year, $500,000 survey, was reported here yesterday to local and visiting dentists in annual convention.

The still-to-be-published report shows that:

The U.S. population has about 700 million untreated cavities, an average of about 4 each for every man, woman, and child.

By age 50, almost half of all Americans suffer gum disease in some form.

By age 65, almost everyone has gum troubles.

Two of every five Americans visit their dentist but once a year, for care ranging from adequate to barely minimum.

The survey findings were reported by Dr. Paul K. Musselman, of Newark, Del., member of the board of trustees of the American Dental Association, fourth district, which includes the District of Columbia. Dr. Musselman's report was made to an opening general meeting of the 3-day scientific sessions of the 29th postgraduate clinic of the District of Columbia Dental Society, at the Shoreham.

The special survey, Dr. Musselman said, was made by a professional team for the American Council on Education.

The experts, Dr. Musselman said, assigned four chief reasons for the country's poor dental health. These included (1) a low priority given dental care, even by those who can afford it; (2) an insufficient number of dentists; (3) inability to pay, and (4) reluctance of dentists to adopt known means of increasing their work productivity.

The special survey was proposed by the ADA in 1957. Dr. Musselman said the survey is the most extensive study of dentistry ever conducted in the United States.

More than 3,000 dentists and their guests are participating in the scientific sessions.

The CHAIRMAN. At this time we will hear our colleague, Mrs. Leonor K. Sullivan. Mrs. Sullivan, we are glad to have you appear before the committee.

STATEMENT OF HON. LEONOR K. SULLIVAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mrs. SULLIVAN. Chairman Harris and members of the committee, I want to make this brief statement wholeheartedly endorsing the concept of H.R. 10541, which carries out one of the important provisions of the health message sent to Congress by President Kennedy earlier this year. If we pass this legislation and appropriate the funds necessary to carry out the purposes of the bill, I am sure we can just about eradicate many diseases which medical science is able to conquer if only the children are vaccinated.

The bill mentions particularly poliomyelitis, diphtheria, whooping cough, and tetanus. Funds would be available to the States and communities for purchase of vaccines to inoculate all children under the age of 5, and for related expenses in maintaining surveillance over the effectiveness of the programs of mass vaccination. In addition—and this, I believe, is tremendously important for the future—the bill also provides for the grant of Federal funds to pay similar costs—

> in connection with intensive community vaccination programs against any other diseases of an infectious nature which the Surgeon General finds represents a major public health problem in terms of high mortality, morbidity, disability, or epidemic potential and to be susceptible of practical elimination as a public health problem through intensive immunization activity over a limited period of time with vaccines or other preventive agents which may become available in the future.

If this program had been in effect 10 years ago, prior to the dramatic announcement in 1955 of the success of the Salk vaccine, we would have been set up to handle the polio immunization program in an intelligent and effective manner. Looking back on the atmosphere of the time 7 years ago when the Salk vaccine first became available for general use, we can all remember the near hysteria and the administrative fumbling which characterized the handling of this great medical achievement.

I still think that the bill I introduced that year would have solved the administrative and distribution problems quickly and effectively. As the members of this committee who served in the 84th Congress may remember, my bill would have authorized the Federal Government to purchase the entire available supply of Salk vaccine as it was produced and turn it over to the National Foundation for Infantile Paralysis for the free immunization of every child in the country under the age of 20, under priorities to be determined by the foundation—which had been responsible for developing the vaccine and which knew more about the relative needs and priorities than any other group in the Nation.

Because of the foundation's reluctance to appear to be in the position of seeking Federal funds, the most I could obtain from that organization in the way of an endorsement of my bill was a statement that it would be willing to handle such an assignment if Congress so directed. The Eisenhower administration, on the other hand, felt that Federal grants for mass vaccination of children against polio should be used only for the indigent. It was a terribly confused and confusing situation at the time, and, as a result, we spent several

years before finally achieving an effective Federal-State program for use of the marvelous new vaccine against polio.

There is no emergency now—no hysteria—no crisis—in the availability of the various vaccines for combating diseases which strike primarily at children. What we need now is a program which will assure that every child in the country, as a matter of right, is protected against polio, whooping cough, diphtheria, and tetanus—and any other serious diseases for which new vaccines may be developed.

Of course, none of these programs will work unless the parents participate and cooperate, or unless the communities find ways of reaching children who are being denied vaccination because of parental neglect. Every time a child is paralyzed from polio in this day and age, and it turns out that the child did not receive polio vaccine, I think the adults responsible deserve public censure, if not criminal prosecution. We know how to end these diseases—but vaccines in test tubes and warehouses do not immunize children.

Therefore, I strongly support this bill.

The CHAIRMAN. Thank you for your testimony, Mrs. Sullivan.

Mrs. SULLIVAN. Thank you, Mr. Chairman.

The CHAIRMAN. A statement will be included in the record from Mrs. Iva Perdue, 6131 Webster Lane SE., Washington, D.C.

(The document follows:)

STATEMENT OF MRS. IVA PERDUE

I am Mrs. Iva Perdue of 6131 Webster Lane SE., Washington, D.C. I am president of the Natural Hygiene Society of Washington, D.C.

I am against the proposed legislation known as the bill H.R. 10541, by Mr. Harris of Arkansas.

I believe that even though in a minority group each individual citizen of America is entitled to select his or her own way of living so long as it does not hurt or jeopardize others in action or words.

I believe in the principles known and upheld by Natural Hygiene in regard to health and disease.

I believe that every citizen has the right to select according to their own conscious convictions the method of life for the preservation of themselves and their underage children.

To permit this bill—H.R. 10541, by Mr. Harris of Arkansas—to become a law would mean the loss of American liberty to all natural hygienists and all health-minded people who oppose various injections and vaccinations to be made upon the human body.

The natural hygienists began over a century ago. One of our early leaders was Dr. Robert T. Trall, M.D., who gave a 2½-hour address on the subject of "True Healing Art" in the U.S. Smithsonian Institute, Washington, D.C., over 100 years ago.

Dr. Robert Walter, M.D., speaking in regard to disease said: "Disease is a natural process of purification, and should not be stopped, but aided. Its remedies are nature's health preservatives, obedience to nature is its greatest panacea. Remove the cause and the effect will cease, is hygienic science."

"Hygiene is that branch of biology which investigates and applies the conditions upon which life and health depend, and the means by which health is sustained in all its virtue and purity, and restored when lost." (Form Hygienic Review, Herbert Shelton, M.D., editor.)

Natural hygienists have many chapters in American namely: New York, N.Y., Detroit, Mich., Pittsburgh, Pa., Chicago, Ill., Washington, D.C., Buffalo N.Y., Los Angeles, Calif., San Diego, Calif., St. Louis, Mo., Newark, N.J., Cleveland, Ohio, Escondido, Calif., San Diego, Calif., Toronto, Canada, Tampa, Fla., Philadelphia, Pa., Boston, Mass., West Palm Beach, Fla., and many others.

The nautral hygienists have a natural convention each year. In 1955 it was held in Washington, D.C. (July 5–9), at Shoreham Hotel.

I regret that many hygienists were not aware of this hearing until too late before the deadline for filing a statement. I am confident there are thousands of health-minded citizens who would oppose the bill H.R. 10541, by Mr. Harris of Arkansas. We hope that no action will be made on this bill until all interested citizens of our land may be alerted in order that they be permitted to voice their convictions on this also.

The CHAIRMAN. A statement from Dr. Irvin Dunsky, president of the Cincinnati Pediatric Society, the Children's Hospital, Cincinnati, Ohio, with numerous names attached thereto. That shall be included in the record.

(The document follows:)

THE CHILDREN'S HOSPITAL,
Cincinnati, Ohio, April 23, 1962.

Congressman WILBUR D. MILLS,
Chairman, House Ways and Means Committee,
House Office Building, Washington, D.C.

DEAR CONGRESSMAN: The Cincinnati Pediatric Society views with grave concern pending legislation proposed by the administration that would step between the infant and child, and the doctor entrusted with their care. A Government immunization program that would wrest from the physician the responsibility for the prevention of disease would deny, or seriously compromise, the concurrent supervisory health care that attends such immunization in the doctor's hands.

The high level of medical care rendered infants and children in the United States today is born out of a concept of a private patient-doctor relationship that stresses comprehensive care of the whole child, and not simply part of that child. Prevention of disease by all means known, including immunization, set against a background of a personal and continued vigilance should be the role and the responsibility of the doctor, vested with the total care of the child. It should, likewise, continue to be the privilege of the patient to receive such immunization from his own physician, and not from a bureau of Government.

The Cincinnati Pediatric Society, accordingly, urges your opposition to the Kennedy administration plan to inaugurate a Government-sponsored nationwide, mass vaccine program to immunize all children against diphtheria, whooping cough, tetanus, and polio—regardless of area of need. These diseases have been brought under excellent control by the private physician and do not call for such a mass program of Federal Government intervention. Medical service and immunization facilities are, moreover, available, through existing local health agencies in situations where unfortunately, a private doctor-patient relationship may not exist.

The attached signatures, representing doctors devoted exclusively to the care and welfare of children, look for your aid, by voting against the aforementioned Government proposal.

Sincerely yours,

THE CINCINNATI PEDIATRIC SOCIETY,
IRVIN DUNSKY, M.D., *President.*

(NOTE.—The attached signatures referred to have been placed in the committee files.)

The CHAIRMAN. The American Medical Association desires to have a statement for the record with some suggestions, and they may have that privilege at this point in the record.

(The document follows:)

AMERICAN MEDICAL ASSOCIATION,
Chicago, Ill., May 31, 1962.

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D.C.

DEAR MR. HARRIS: The following statement is submitted on behalf of the American Medical Association with respect to H.R. 10541, 87th Congress, which is now before your committee for consideration.

The primary purpose of this bill, as indicated in its title, is to assist States and communities to carry out intensive vaccination programs against poliomyelitis, diphtheria, whooping cough, and tetanus.

The American Medical Association, which has for many years taken the lead in supporting and furthering measures aimed at preventing as well as curing diseases, endorses the principle embodied in H.R. 10541.

Our house of delegates has on many occasions adopted policy resolutions urging immunization against polio, tetanus, and other communicable diseases for which vaccines exist. Although traditionally it has been the policy of the American Medical Association to urge that the best means of administering vaccines is in the doctor's office, with the family physician vaccinating his patients, we also have recognized that intensive immunization against communicable disease is a public health matter.

State and county medical societies throughout the Nation have worked closely with local and county health departments in conducting immunization programs for many years. Tens of thousands of physicians have contributed their time and skill to such programs. The AMA, in conjunction with the U.S. Public Health Service and voluntary health agencies, has also conducted and cooperated in vigorous campaigns to encourage community immunization against communicable diseases.

Despite the rapidly declining incidence of poliomyelitis, diphtheria, pertussis, and tetanus under the impetus of years of intensive work on the part of the American Medical Association, State and county medical societies, public health officials, voluntary health organizations, and private physicians, there still is need for more complete immunization of the public, especially in polio and tetanus.

In the interest of improving the specific legislative proposal before you, the American Medical Association urges that H.R. 10541 be modified in certain respects.

First, in recognition of the well-established and accepted relationships between the U.S. Public Health Service and the States, we believe that it is preferable for State health departments to work with local communities rather than for the local communities to deal directly with the Federal Government. In our opinion State and local authorities working together are in a better position to recognize and evaluate local needs for immunization and to develop balanced programs within the State. Likewise, in recognition of the effectiveness and desirability of existing and well-proven financing mechanisms, we believe that intensive community vaccination programs should be financed through a matching grant formula under which the State provides a portion of the cost of the program and whereby State determination and administration is preserved.

Second, although the American Medical Association recognizes the scientifically established desirability of community immunization against poliomyelitis, whooping cough, diphtheria, and tetanus, we seriously question the desirability of vesting the Surgeon General of the U.S. Public Health Service with plenary authority to extend such community program to any and all infectious diseases without the necessity of seeking congressional approval. When and if other infectious diseases are proven to be susceptible to practical elimination, as a public health problem, through intensive immunization activities over a limited period of time, the Congress of the United States and the several States should have the opportunity to determine the necessity and appropriateness of a new Federal program.

In summary, the American Medical Association endorses the principle of H.R. 10541 as applied to the four infectious diseases named in the bill—poliomyelitis, diphtheria, whooping cough, and tetanus—but urges that (1) the bill be limited to the four named diseases; (2) the bill be financed as a grant-in-aid program with the States participating on a matching formula basis; and (3) the programs be administered by State health departments, preserving the well-established and accepted relationships between the U.S. Public Health Service and the States in matters pertaining to health.

We thank you for giving us the opportunity to express the views of the physicians of America concerning this important and vital legislation. We respectfully request that this statement by the American Medical Association be included in the printed record of the hearings on H.R. 10541, 87th Congress.

Sincerely yours,

F. J. L. BLASINGAME, M.D.

The CHAIRMAN. The record will remain open for a period of 1 week for the inclusion of such statements or other statements appropriately that should go in the record.

This concludes the hearing on this bill and with the thanks of the committee and the chairman, the committee is adjourned.

(The following material was submitted for the record:)

McALLEN, TEX., *May 8, 1962.*

HON. OREN HARRIS,
Chairman, House Interstate and Foreign Commerce Committee,
House Office Building, Washington, D.C.

DEAR MR. HARRIS: The administration-backed proposal known as the mass vaccination bill or the Vaccination Assistance Act of 1962, H.R. 10541, is apparently a companion bill to S. 2910. These bills are, "to assist States and communities to carry out intensive vaccination programs designed to protect their population, especially all preschool children, against poliomyelitis, diptheria, whooping cough and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs."

Mr. Harris, in this the county of Hidalgo, Tex., every community, and some of these are very small, has at least one immunization clinic per month for the above-mentioned diseases as well as for typhoid and small pox. In fact, there are 20 places in this county where clinics are located. The largest town in the county, McAllen, has six immunization clinics a month. The 20 clinics meet a total of 45 times per month. No one in this county is over a few miles away from any of these clinics. Mr. Harris, the department of public health is doing an adequate job on this problem. The Hidalgo County Public Health Department carries out immunization, in addition to the above mentioned 20 locations, in local schools at times when such circumstances seem advisable. There are 44 employees, their salaries and the medicines are provided for by the local county and State of Texas. There is no need for a Federal program or assistance in this county.

The bill leaves a large opening for future expansion of immunizations and control over local health situations by the Federal Government, and if it is allowed to pass, you know more will follow.

You folks take care of the Potomac Fever there in Washington and we will take care of our own problems.

Sincerely,

ELINOR E. MARSH, M.D.,
Acting Director of Hidalgo County Health Department.
P. D. TERRELL, M.D.,
Pediatrician.

CITY OF CINCINNATI,
OFFICE OF BOARD OF HEALTH,
Cincinnati, Ohio, May 16, 1962.

MR. OREN HARRIS,
Interstate and Foreign Commerce Committee,
House of Representatives, Washington, D.C.

DEAR MR. HARRIS: As a city health commissioner, I write in support of H.R. 10541, a bill, to assist States and communities to carry out intensive vaccination programs.

Although much has been done in the United States to prevent such diseases as smallpox, diphtheria, poliomyelitis, and the other dangerous communicable diseases for which preventive agents are available, there is no doubt whatsoever that there remain large numbers of children and adults unprotected, either because of economics or ignorance, or both.

Campaigns to educate the public as to the importance of having such protection are useless unless that section of the public which financially is unable to buy such protection can be provided by public means. It is true that many communities have not been remiss in providing immunizations for the indigent, and Cincinnati has not been remiss in so doing, yet there is no doubt that there are many communities which are not so fortunately placed for some reason or another.

Effective immunization programs ought to reach the largest number of children and adults possible. Yet we speak of an effective level of immunization being attained when we attain a figure of 75 percent or more. This merely underscores the point that 25 percent or more are not being immunized. If great publicly sponsored drives are made with private physicians doing their part in their offices, and health departments doing their part for those who

cannot afford private care, then we may be able to do even better. This is what we did here in Cincinnati during the Sabin oral antipoliomyelitis vaccination program, which was a great success and has kept Cincinnati polio free for nearly 3 years. If Cincinnati can do it so can other communities. Bill H.R. 10541 will help those communities who have been remiss to catch up.

Very truly yours,

KENNETH I. E. MACLEOD, M.D., M.P.H.,
Commissioner of Health.

AMERICAN NURSES' ASSOCIATION, INC.,
New York, N.Y., May 22, 1962.

HON. OREN HARRIS,
Chairman, Interstate and Foreign Commerce Committee,
House of Representatives, Washington, D.C.

DEAR MR. HARRIS: The American Nurses' Association wishes to submit for the record its support of H.R. 10541, to assist States and communities to carry out intensive vaccination programs designed to protect their populations, especially all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus, and against other diseases which may in the future become susceptible of practical elimination as a public health problem through such programs.

Some parents do not make protection against these diseases available to their children, either because of ignorance or the inability to pay. An intensive campaign of this nature could serve a dual purpose—that of providing the immunization for the children and as an educational measure for the parents.

We would recommend, however, that all plans be made through the State health department in each State and that grants to local or other subdivisions of a State be made through the Staate health department. This method of operation would contribute to an orderly program in each State that chose to participate in the campaign.

Although the death rates from the diseases for which serums and vaccines are available have declined, there is still a large number of children who must go through life suffering handicaps as a result of survival. These are the children who have not been immunized. We believe that this legislation could have lasting value in the prevention and in the eventual eradication of certain of the childhood diseases.

Sincerely,

MRS. JUDITH G. WHITAKER,
Executive Secretary.

[Telegram]

RICHMOND, VA., *May 11, 1962.*

CHAIRMAN,
House Interstate and Foreign Commerce Committee,
House of Representatives, Washington, D.C.

DEAR SIR: H.R. 1051 must be defeated because it is socialized medicine; unnecessary Federal spending is bankrupting this country. It encourages compulsary medication laws. Recent research at the University of Utah Medical School indicates the tetanus, diphtheria, and pertussis shots given babies has increased leukemia in 4-year-olds. Please insert this into hearings.

MRS. LESLIE ZODUN.

[Telegram]

QUINTON, VA., *May 14, 1962.*

CHAIRMAN,
House Interstate and Foreign Commerce Committee,
House of Representatives, Washington, D.C.

Kill H.R. 10541. It is socialized medicine and un-American. Please insert this in hearing.

MRS. JULIA RENALDS.

(Whereupon, at 4:20 p.m., the committee was adjourned.)

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