

## Problems of Rural Health Organization

WARREN F. DRAPER, M.D.,

Medical Director, U. S. Public Health Service,  
Washington, D. C.

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It was about 25 years ago that I made my first contact with public health problems in the rural sections of our country. At that time our annual meetings of the State Health Officers with the Public Health Service were devoted to a considerable extent to discussions of the excessively high incidence of typhoid fever, dysentery, malaria, hookworm infection, and other preventable diseases in our rural areas and to ways and means of combatting them. For the most part it was the general opinion among the more experienced health officials that while there was critical need for sanitary measures, no practicable plans for their introduction and operation had been devised. Certain of the younger men, however, were optimistic in their belief that if improved methods were accepted by our rural people in agriculture, stock raising and other pursuits, they would also be amenable to common sense measures for the protection of human health. And so it is that step by step, through educational campaigns, and surveys and demonstrations, a definite program of organized local health work has been developed through the intervening years.

From the scientific point of view we have made great strides in medicine and in public health. We have reduced the general mortality. We have cut the tuberculosis rate to one-half that of fifteen years ago. We have reduced the pneumonia rate and have the facilities to reduce it further. The mortality of women and children has been reduced. We have begun to discuss frankly and to face squarely the threat presented by our two more prevalent serious diseases—syphilis and gonorrhoea. Consider for a moment some of the very forward steps which have been taken during that brief period of years since the World War.

Diphtheria immunization has been developed first by toxin-antitoxin and more recently by the simpler toxoid method. Diphtheria can be eliminated.

We have made great advances in our knowledge of nutrition. As Surgeon General Parran recently remarked: "Fifteen years ago the word vitamin was known only in the scientific laboratory and medical circles. To-day it is a household word."

For tuberculosis we have developed collapse therapy, and chest surgery. We have perfected skin tests to discover the presence of tubercular infection. We have developed the X-ray to diagnose active forms of that disease.

We have learned to differentiate the various types of pneumonia and for some of these types we have developed serums of great curative value.

During the past ten years studies sponsored by the U. S. Public Health Service have so perfected the diagnosis and treatment of syphilis that medicine can deal with it more effectively to-day than it can deal with any other similarly serious disease.

Radiation with X-ray and radium have brought even to cancer a prospect of cure in an outlook which once was hopeless.

If clinical practice bears out early promises, sulphanilamide and its related compounds will give medicine effective weapons against gonorrhoea and streptococcus infections which in the past for some time have been hopeless. This advance in chemotherapy may prove to be the most significant discovery for our generation.

So we have made progress against some of the more epidemic diseases. We have not made similar progress against others. In some fields, such as mental hygiene, our answers are still uncertain. The incidence of mental disorder and crime suggest the challenge that better mental health presents to the community. In some other fields, such as syphilis, we have the medical means at hand to stamp out disease, but have made little progress as yet toward public health control. I have, however, every confidence that where medicine has created the means to defeat a disease that we will undertake to defeat it. Science cannot announce the availability of such facilities without creating a public demand that they be used.

People believe and believe quite properly, I think, that they have a right to health. The right of a woman to her own life at childbirth, her right to a live and healthy infant cannot be considered conditional upon the income of her husband. The men and women concerned, aren't going to think so either. The American Institute of Public Opinion during the last year has shown that 81 per cent of the voters say "Yes" to the question: "Do you favor Federal aid to provide better care for mothers in childbirth?" Even a higher per cent said "Yes" to the question: "Will you take a free, confidential blood test for syphilis by your family physician?" A similarly overwhelming sentiment was found to a proposal for a Federal appropriation of \$25,000,000 a year to control syphilis. Twenty years ago Sir William Osler commented with rare insight: "In the matter of health we can trust the people. Once get a democracy to realize that it is diseased and it shows a Job-like regard for its skin."

We in North America particularly are going to face this challenge. If there is one thing that distinguishes us from other races, it is our inability to be satisfied with something which is merely "pretty good". The automobile of 1915 would run. The automobile of 1925 would run still better. But whenever engineers could devise ways to making automobiles better, or simpler, or more available, men could be found who undertook to do it.

Lord Macaulay could say with smug satisfaction: "No man who is correctly informed as to the past, will be disposed to take a morose or desponding view of the present." We, on the other hand, may do somewhat better than we did in the past, but we make no claim to self-satisfaction. Our success must be measured in our ability to do better next year and the year after.

Now just what are we faced with in that next year and year after? Our progress has been great but it has not been well distributed; for example, I have said that we have brought the infant mortality rate down. One of my colleagues lives in an area of the city where the mortality rate reported last year was ten per thousand, yet in a three mile trip as he comes to his office in the Public Health Service each morning he passes through

another district of the city where the infant mortality was 159 per thousand. These differences in the infant mortality rate are closely related to income.

In the United States Public Health Service we have conducted recently a nation wide survey intended to get facts about disease which have not hitherto been available. How does health relate to income, to employment status, to occupation, to age and sex and color? How is preventable illness related to these economic factors? Now there are ten diseases which are highest in the number of deaths they are responsible for: Heart disease, cancer, pneumonia and influenza, cerebral hemorrhage, nephritis, tuberculosis, diabetes, diarrhea and enteritis, appendicitis and syphilis. The study noted that in the case of seven of these ten diseases, all but cerebral hemorrhage, diabetes, and appendicitis, death rates steadily rise as income goes down. Take for instance respiratory tuberculosis. There are three times as many deaths from respiratory tuberculosis among skilled workers as among professional workers. There are seven times as many deaths among unskilled workers as among professional workers. Or take pneumonia as another example. Pneumonia kills three and one-half times more unskilled workers than it does professional workers. Deaths from diarrhea and from syphilis are twice as high for the unskilled as for the professional group. Cancer kills fifty per cent more unskilled workers than professionals. For all these causes combined the death rate is twice as high for the unskilled worker as for the professional.

It is one thing perhaps to point out that there is a great unoccupied field in which men and women—our basic national resource—are being ill cared for or not cared for at all in sickness and death. But what are we going to do about it? One may grant that it would be humanitarian to care for these underprivileged. The other question which will be asked is: "Can we afford to care for them?"

The Surgeon General answered that very clearly in a recent address before the Association of Life Insurance Presidents. He said: "We cannot afford to carry the unnecessary load of preventable sickness and death. Ill health is bad business. With the passage of the Social Security Act the nation has assumed a financial stake in good health. Illness and death cost tax-

payers money. Social Security laws provide pensions for fatherless children made dependent by the death of a bread winner from tuberculosis, or made motherless by death in childbirth. Pensions are paid for the blind. A recent study shows that the total cost of maintaining persons blind on account of one preventable cause alone—syphilis—amounts to \$10,000,000 a year. Mental hospitals all over the land are burdened by the unnecessary load of the syphilitic insane, at a maintenance cost of \$31,400,000 a year. No one knows the cost of treating America's 160,000 cases of cardiovascular syphilis. No one knows the cost to communities of caring for those disabled by cardiovascular syphilis or those made dependent by the 40,000 deaths from this malady."

In the Social Security Act \$12,000,000 was authorized for the Public Health Service and the Children's Bureau to aid states in their public health efforts. Since that time 370 counties have established county or district health organizations and many of these have only skeletons of an effective organization, but at least the start has been made. They bring to 1,027 the number of counties which have a health service under the direction of a full-time health officer.

The provisions of the act in relation to public health are relatively simple. The act provides an appropriation of \$8,000,000 a year to assist states, counties, health districts and other political subdivisions in establishing and maintaining adequate public health services, including the training of personnel. The act, moreover, authorizes certain regulations governing these allotments to be made by the Surgeon General.

The funds are distributed among the several states on three bases: first, population; second, special health problems; and third, the financial needs of the state.

The state budgets and plans for public health work are submitted by each state health officer. If those plans are reasonably adapted to the end in view and deal with a public health problem, the plans are approved without question. In other words, we have followed very definitely the principle of the maximum of decentralization in plans and programs for health work. Speaking generally, our Federal funds are being used to

strengthen state and local public health organizations and to extend the benefits of full-time health services to many localities hitherto unable to finance them.

Many new health organizations have been established in the past year. Deficiencies in the organization of state health agencies have been supplied. The majority of state health departments have strengthened their local health administration. A number of states have added new units or sections for the promotion of industrial hygiene. The control of acute communicable diseases has been materially strengthened. Laboratory facilities have been augmented. Improvements in personnel and equipment for the handling of vital statistics have been made. Public health nursing has been strengthened. Special measures for the control of syphilis and tuberculosis have been started. More than that, a strong impetus has been given for the development of oral hygiene in many states, and special health problems peculiar to states or localities are being attacked. Examples are: trachoma in Missouri and Kentucky; rodent plague on the West Coast; malaria and hookworm disease in the Southern states and industrial hygiene in the industrial states. The states generally have used these funds to meet the particular needs which exist in each state.

Part of the appropriation given to the states is used for the training of personnel. There, again, the federal regulations are liberal. Ten per cent of the total allotment to each state is for the training of personnel for state and local public health work. About 1,200 people are receiving some kind of training under this section of the act. That includes not only the full-time medical officers who are in the schools of public health, at Johns Hopkins, Harvard and the others, but it includes many short courses of instruction for the directors of syphilis clinics, local infant and maternity hygiene programs and many other such types of work. Also, public health nurses, engineers and other public health personnel in considerable numbers are receiving this special training.

Continued investigations are being made of public health methods in various parts of the country in order, if possible, to appraise the relative effectiveness of various procedures and, as a result of such studies, to recommend more specifically the

desirable practices in community health work. The research work which is being carried on is, we believe, one of the most important phases.

There are certain principles which we hope will be followed in carrying out these community health programs. In an earlier day, they were very simple, when the health officer dealt only with the problems of environmental sanitation. That day has passed, and we may as well recognize it. Our problems now are much more complicated. We used to be able to say, "The health office deals with prevention. It puts chlorine in the water supply, sees that the milk is pasteurized and sees that the garbage is cleaned up, while the job of the rest of the medical profession is to treat disease." It seems perfectly apparent to any student of the subject that the major health problems of to-day are those diseases and conditions in the control of which treatment of the individual case is an important element. Tuberculosis, syphilis, cancer and pneumonia are examples.

So, inevitably, the public health officer now is concerned widely with the community facilities for the diagnosis and the relief of disease, as well as with environmental sanitation. That means he is brought more closely into relation with the medical profession. It means, too, that the medical profession has been brought more intimately into contact with the public health officer.

This increased area of contact, this increased scope of mutual interest between the practicing physician and the community's collective effort to deal with health problems, naturally has resulted in many points of discussion and sometimes in differences of opinion and serious disagreements. The average doctor practising medicine has been so busy keeping up with his own specialty that he has not had much time to keep up with the health problems of the community. Health officers too, must share the blame for lack of teamwork.

Now that we have a large area of common interest between the private practise of medicine and community health work, we hope that health officials everywhere will seek and can secure the full participation, the full cooperation and the full study of community health problems by the medical profession of every community.

Surgeon General Parran has presented his views in summary as follows: "I favor and advocate: first, the most complete application of our knowledge for the prevention of disease and death by joint community and professional effort against those diseases and conditions which are clearly recognized as within the sphere of public health service; second, the use of community resources to put better tools in the hands of the medical profession and thereby benefit the public health (pneumonia control work being one of many examples which might be cited), and third, the continued and more general use of tax funds to provide general and reasonably complete medical care for the dependent groups of the population."