THE CHANGING CONCEPT OF PUBLIC HEALTH[1]

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VARIOUS historians have pointed out that the modern public health movement has undergone marked and fundamental changes. Some of these changes were precipitated by epoch-making scientific discoveries; others came through the evolution of social objectives and methods. The early days of the movement were dominated by the "filth" theory, that public health could be achieved by community cleanliness and sanitation. Then came the period initiated by the epoch-making work of Pasteur and Koch and their followers. This was an era of bacteriology in which the dominant idea was that public health could be achieved by medical measures. The campaign against tuberculosis gradually ushered in the third period during which it was realized that a disease such as tuberculosis could not be conquered by community sanitation and medical measures alone, because its prevalence was so bound up with many other environmental factors. Since then the concept of the scope of public health necessarily has broadened with attacks on such problems as infant mortality, dietary deficiency diseases, industrial hygiene, and mental hygiene.

Although considerable specialization (which so often narrows the view) has taken place, a further broadening of the concept of public health is evident. "Public health is not hygiene or preventive medicine," as the late and beloved Dr. Linsly R. Williams once said.[2] "It is a concept of the condition of health of the community. Efforts to conserve the public health include both those which affect the health of the community as a whole, and those which seek to prevent any individual or group of persons affect-

[1] A portion of this paper was contained in an address read at the Institute of Public Affairs, University of Virginia, July 5, 1935.

[2] Williams, Linsly R.: The Rôle of the Practitioner in Modern Public Health Work. PREVENTIVE MEDICINE AND PUBLIC HEALTH. New York, Thomas Nelson & Sons.

ing adversely the health of others." Recently, in the consideration of ways and means whereby economic security of the great mass of the population may be enhanced, the current concept of the term "public health" has come in for renewed scrutiny since so much economic insecurity arises out of ill health. Public health is being looked upon more as a major social objective, not as merely sewage disposal, or the prevention of infectious diseases, or popular instruction in hygiene. This is the natural result of a keener appraisal of all of the things yet to be done and a clearer realization of the fact that many forces, although apparently directed toward widely different objectives, have a common basic aim.

I

It is worth a few minutes' time to take stock of some of the things that need to be done and that can be done in the further promotion of public health. Readers of Dr. Bolduan's brief but illuminating article in the last issue of the *Quarterly* will recall his impressive exhibit on the conquest of pestilence in New York City. But, as he comments, "while the course of the City's death rate during the last eighty years as here recorded is most gratifying, there is danger that it may make us too complacent, and inclined to believe that there is little left for health officers to do." Moreover, the task should be measured not merely in terms of the mortality rate. It has been pointed out[3] that among an average million persons in the United States, there will occur annually between 800,000 and 900,000 cases of illness. It may be predicted for this average million persons that, though 470,000 will not be sick during a normal year, 460,000 will be sick once or twice, and 70,000 will suffer three or more illnesses. Of those who become ill, one-fourth will be disabled for periods varying from one week to the entire year. The gigantic annual money loss in wages

[3] Report to the President by the Committee on Economic Security, January 15, 1935, pp. 38-39.

caused by sickness in families with small and modest incomes in the United States is estimated to be not less than nine hundred million dollars, and the still larger expenses of medical care probably are not less than one and a half billion dollars. These are only the direct costs. The much larger costs of depreciation in capital values of human life are incalculable. Even the direct costs could be borne if they were distributed equally, but they are not.

Science has not yet given us the means with which to prevent all of this sickness or to enable everyone to live healthfully until the end of the natural span is reached. But, as I have tried to emphasize in an earlier paper,[4] the plain fact must be faced that notwithstanding great advances in medicine and public health protection, the American people are not so healthy as they have a right to be. Millions of them are suffering from diseases and over a hundred thousand die annually from causes that are preventable through the use of existing scientific knowledge and the application of common social sense.

Ample evidence exists to support this sweeping statement. The ravages of typhoid fever, diphtheria, and smallpox have been enormously lessened; they ought to be and can be eradicated. The infant death rate has been cut in half in the last quarter century, but it can again be cut in half. Mortality from tuberculosis has been reduced by 60 per cent since 1900, and could be halved again. Two-thirds of the annual thirteen thousand maternal deaths are unnecessary. At least three-fourths of a million cases of syphilis are clinically recognized annually; but more than half of these do not obtain treatment at that stage of the disease when the possibility of cure is greatest. We have been rather vociferous in recent years over the health and welfare of children; yet it is estimated that 300,000 are crippled, a million

[4] Health in the New Deal. Annals of the American Academy of Political and Social Science, November, 1934.

or more are tuberculous, and nearly half a million have heart damages or defects.

The mortality of adults of middle or older ages has not appreciably diminished. The expectation of length of life at forty is about the same now as it was in 1850, 1890, or 1900. The mortality of adults who should be in their physical prime—20-44 years of age—is almost as great as that of the younger group, which includes babies and children. The mortality of persons who ought to be in full mental vigor and still capable of many kinds of physical work is over three times that of the younger adults. In the young adult ages, 20-34 years, tuberculosis still tops the list as a disease; accidents and homicides snuff out about one life in a thousand annually; organic heart disease appears in even this young age period as the third most important cause of death. All careful studies of illness and physical impairments corroborate these ghastly records; in fact, they reveal even more impressively than mortality statistics the extent to which the vitality of the population is damaged in the most efficient period of life. This disconcerting evidence of impaired efficiency among our adult population takes on a graver significance in view of the changing age of our adult population. We can no longer squander the vitality of our grown men and women. The task of health conservation in the future must be broadened to include adults as well as children.

II

Such a situation need not exist if public health be made, as political leaders from Disraeli to Roosevelt have pronounced, the first concern of the State. Public health never has been the *first* concern of the State except in catastrophic situations. We are somewhat accustomed to accuse the politicians of lack of understanding, the medical profession of failure to cooperate, employers of unenlightened selfishness, trade unions of insistence upon measures not directly related but even inimical to health,

and so on. If there is any blame to be attached to any one group, the professional sanitarian should come in for his share since the public looks to him to define the scope of public health. The trouble lies deeper. The prevailing concept of public health responsibilities has been and is too narrow. It is restricted to a few activities such as community sanitation, water supplies and food inspection, control of infectious diseases, education in hygiene, the medical care of the tuberculous and mentally diseased, and the medical care of the indigent. A newer concept which many sanitarians are coming to accept is much broader and far more sound. It may be stated in terms somewhat as follows:

> *Society has a basic responsibility for assuring, to all of its members, healthful conditions of housing and living, a reasonable degree of economic security, proper facilities for curative and preventive medicine and adequate medical care—in fact the control, so far as means are known to science, of all of the environmental factors that affect physical and mental well-being.*

Such a concept in no way postulates any particular form of government. There is no reason why society cannot discharge this responsibility under any form of government through which it can express its will. Nor does this concept postulate "state medicine," "regimentation of physicians," or Sovietized control of those who render health services. It is the expression of a social objective. The public health of the future demands some sensible coordination of public health functions with private medical practice, some solution of the economic problems that are involved in obtaining preventive and curative medicine, some set of procedures by which the physician, sanitarian, and social worker can do their best work in preventing disease, in the care of the sick, and in the rehabilitation of the unfortunate. To what avail, for example, is the instruction of an expectant mother by a health department nurse if she cannot pay for the services of a com-

petent obstetrician and afford the special services needed if her case is a difficult one? I do not propose that there should be a uniform national plan or set of procedures, because, in a country so large and diversified as ours, methods and procedures necessarily must vary according to states and communities. The interrelationship of the essential environmental conditions involved demand, however, a concept of society's responsibility for the health of its members that rises above the petty jealousies and bickerings that too frequently impede honest attempts to find satisfactory methods and procedures. It will not always be so. Some day the basic criterion of any condition or any practice or any proposal will be the effect it may have upon the public health.

III

In the light of these considerations, some of the more direct modes of attack on the general problem of public health may be referred to briefly. Science and experience have taught us some methods by which specific approaches can be made. Other methods, which may or may not be practical, are being proposed and need to be considered dispassionately and experimented with.

1. Greater economic security for families of modest and low incomes, whether attained by unemployment compensation, old age annuities, wage increases, or other methods, is, in itself, a preventive measure against ill health. This conclusion follows inevitably from the long-known association of poverty and disease and the vicious circle which this association contains. The fact that the American people have not suffered to a greater extent from ill health than might have been expected during a severe economic depression is due, I believe, in large measure to the sharing of savings by related persons, to private philanthropy, and later, to the provision of relief and employment by the State and Federal Governments on an extraordinary scale.

2. The prevention of ill health through the extension and de-

velopment of direct public health measures of proved value is essential. In the past, expenditures for this purpose, except in comparatively few areas, have been niggardly, and the policy of placing the responsibility for preventive measures upon communities and states has failed ignominiously. The average expenditure out of tax funds for public health purposes in American cities in 1929 was only $1.00 per capita, less than half the sum which competent experts have estimated is necessary. Only about one-fifth of the rural population of the United States has the benefits of organized health machinery and in nearly all the 500-odd counties having some sort of health services, the budget and personnel are regarded as far below any reasonable standard of efficiency. Up until the recent passage by Congress of the Economic Security Act, efforts to get the Federal Government to do for public health what it has done for education, agriculture, and roads, had been unsuccessful. It is exceedingly gratifying that for the first time in the history of the United States, the President has recommended to the Congress a very considerable increase in appropriations for public health purposes, and that the authorization of these specific measures was not opposed in the Congress.

3. The precise relationship of housing to health is not fully known but there is no question that certain types of housing are conducive to the spread of infectious diseases and tend to break down the resistance of inmates to other diseases. Slum clearance in our cities and better housing for persons of low incomes wherever they may live are clearly preventive measures which are in the category of public health functions.

4. The application of the newer knowledge of nutrition through education and through better distribution of the so-called supplementary foods, constitutes another preventive attack upon the general problem of ill health. In his presidential address before the American Medical Association last June, Dr. James S.

McLester gave an illuminating exposition of the possibilities in this direction. He pointed out that "it is difficult to estimate how many persons in this country are so poor that they are unable to purchase the food necessary to keep them in health," but he ventured to say that, "something like twenty million American people are living near or below the threshold of nutritive safety."

5. Physical training, recreation, and education in hygiene and community health are matters about which we "confer" at length but do very little except in a few localities. We lag far behind some other countries in providing adequate facilities for training and recreation and in properly correlating health education with other subjects in our curricula. One may say that our public school system is so vast and so routinized that it cannot easily be altered; yet in education lies a powerful means toward public health.

6. The new interest in population questions in this country gives some promise that limitation of size of family, redistribution of population, and other methods of population "control" will be considered more scientifically than before. These possible measures obviously have real significance from the viewpoint of health conservation.

7. Social work has so long been coordinated with health services that it is perhaps unnecessary to do more than mention it as a definite public health measure. The policy of relief on a gigantic scale during the past few years has given greater emphasis to the need for an even closer and more efficient coordination of social work and health services, including medical care.

8. Medical care is an essential health service, but the people do not get enough of it. It is not fully applied. It has been thoroughly established that under existing conditions, even in normal economic periods, thousands upon thousands of families are unable to purchase medical care when sickness occurs. Less than 10 per cent of the population have had even a partial physical exam-

ination; less than 5 per cent are immunized against any disease. These conditions persist in spite of the fact that there are enough doctors, nurses, and others who render or assist in rendering medical services—about a million persons all told—to take care of all sicknesses and do nearly all of the preventive work for individual patients that we now know how to do.

The subject of medical care recently has come to the fore in discussions of public health and the economic security of the patient and the physician. Opinion is divided as to the best methods of obtaining a better distribution of medical care. But there seems to be no dissent from the proposition that care of the indigent sick and crippled and otherwise unemployable persons should be a responsibility of the government; that the diagnosis and treatment of persons affected with certain types of disease (such as tuberculosis, cancer, syphilis, and gonorrhea) should be a tax-supported function; and that federal, state, and local governments should join in providing general hospital facilities in areas unable to support them locally. But beyond this, wide divergence exists in the views of those who are studying other ways of distributing medical care. There are still a few who are satisfied with the *status quo*. Others take the view that before any statewide and national plan is considered, local experimentation with various ways of paying for medical care should be carried on. Some of these experiments have been in operation for some time and new ones are being started. This is an encouraging sign of a growing consciousness of the situation on the part of the medical profession and of the public. Other proposals involve programs on a larger scale. Only recently the distinguished commissioner of health of New York State, Dr. Thomas Parran, Jr., proposed that all persons participating in the old age annuity plan and unemployment compensation under the Economic Security Act and all others having annual incomes of less than $2,500 should be given "public care for costly illness." He sug-

gested that the types of medical care which might be provided at public expense, in whole or in part, for the lower-income groups of the population, might be facilities for accurate diagnosis, obstetrical care, hospital care, home nursing, and the treatment of chronic diseases. Then there are the much debated proposals of various kinds for health insurance among individuals who, though not dependent, lack sufficient income to budget against the costs of needed medical care, especially the more costly medical services. These proposals are of two general types. One is insurance against the loss of wages resulting from illness, and the other is insurance against the costs of medical care. Many proposals for variations within each of these two general types are being considered. The experience of European nations as well as of Great Britain and Japan with health insurance of some form or other has, of course, suggested to many the possibility of health insurance in the United States, provided its administration can be so safeguarded as to preserve the advantages of the private practice of medicine and to prevent the interference of politicians.

IV

All of these should be considered as possible strategic approaches in the attack upon ill health and its consequences. No one of them is sufficient by itself. There is no single panacea, for the obvious reason that all of man's environment is involved. Different modes of attack involve different interests, groups, and individuals. Conditions, social and physical, which affect health vary according to locality and climate. Whether in the future some coordination of all these efforts in a comprehensive plan under central control in the community or the state or the country will appear advisable is another question. But the concept of public health as a major social objective should be broadened to a degree where the importance of each effort, each measure, each method gradually may be seen in its true perspective.