ECONOMY IN PUBLIC HEALTH

by EDGAR SYDENSTRICKER

ECONOMY in public health is a phrase which is given two entirely opposite meanings. In this respect, public health shares with many other fields the ambiguity which attaches to the word "economy." Some interpret economy to mean the reduction of appropriations (by federal, state, or local governments) for the support of specific public health procedures of proven value for no other reason than that appropriations for less vital purposes are being reduced. The other interpretation of economy calls for expenditure of appropriations to the end that the money should be used to the greatest possible advantage. The one is as surely false as the other is true. If economical appropriations are to be made, it is necessary to understand fully (1) the existing need for public health protection, and (2) the degree in which this protection actually can be afforded by effective public health administration and public health methods.

The questions of false and true economy in public health take on a national significance because of the Social Security Act of August 14, 1935. "For the first time," said Dr. E. L. Bishop in his presidential address at the 1935 meeting of the American Public Health Association, "the importance of public health protection as an element in national security has been fully recognized by expression of a national policy for the strengthening of state and local health agencies. Passage of the Social Security Act by the last Congress presents the public health profession of this country with the greatest opportunity to establish constructive programs of health service that has been given to any group in our history." In another connection in the same address, Dr. Bishop pointed out that, "The establishment of a national health policy through passage of the Social Security Act, together with the existence of at least the elementary facilities for the application of knowledge,

today places the public health profession of this country at the cross-roads of opportunity. If its fullest possibilities are to be realized, this turning point in our history must be met in the spirit of highest idealism."

Under the Social Security Act, authorization was made for federal appropriations totaling $13,800,000[1] for federal public health services and grants-in-aid to the states for their public health activities. But, since the Congress was balked in the closing hours of its last session, by the filibuster of one Senator, in its intention to appropriate money under this Act, the size of appropriations under the Act will come up again for consideration at the session which begins in January, 1936. The Act itself authorizes but does not make appropriations. It may become an acute issue because of the pressure to reduce federal expenditures generally along horizontal lines. In view of the general approval expressed for the public health provisions of the Act last summer, it may be assumed that the intended appropriations will be made and it is not unlikely that the increase in federal appropriations will be followed in many instances by increases in state and local appropriations for public health. This possibility raises the question also of how this additional money can be expended most effectively and therefore most economically.

I

The necessity for increased federal appropriations for public health was fully realized by the Committee on Economic Security, by the President and by the Congress, as evidenced in the Com-

[1] This total includes $8,000,000 for grants-in-aid to states through the United States Public Health Service, $3,800,000 through the Federal Children's Bureau for maternal and child health, and $2,000,000 to the Public Health Service for research and additional personnel. This is exclusive of the $2,850,000 authorized in the Act for crippled children, including services and facilities for children suffering from conditions which lead to crippling, and $1,500,000 for child welfare in predominantly rural areas, although the public health values, both direct and indirect, of these services are clear and unequivocal. Sound provisions for unemployment compensation and old-age security may be regarded as indirect measures for health maintenance, but the question of the soundness of the provisions for these purposes which were embodied in the Act is not germane to the subject under discussion here.

mittee's report, the President's message, and the action of the Congress itself. The members of the Committee's staff to whom the subject of "Risks to Economic Security Arising Out of Ill Health," was assigned, had proposed as a fundamental consideration that no program of dealing with these risks could be regarded in any sense as complete or effective without adequate provision of measures for the prevention of ill health. In presenting this view to the Committee, it was pointed out that the application of the sound principle of prevention in this instance should be viewed in the light of four broad considerations which may be stated briefly as follows:

(1) Although one-third of the burden of preventable illness and premature death has been lifted in progressive communities since modern public health procedures were introduced, there is recognized opportunity for continued progress and wider application. Only a fraction of the population has benefitted to the fullest extent from the application of existing knowledge of disease prevention through public health procedures of proven effectiveness.

(2) The policy of leaving to localities and states the entire responsibility for providing even minimal public health facilities and services has failed in large measure. Only 21 per cent (75 counties and 102 cities) of counties and cities have thus far developed a personnel and service which can be rated as even a satisfactory minimum for the population and the existing problems. Only 540 out of 2,500 rural counties have even a skeleton health administration.[2] Yet the federal government has a definite constitutional responsibility for the protection of all of the nation's population against disease or other

[2] As of December 31, 1934. The following figures are from the United States *Public Health Reports* for November 1, 1935, p. 1553:

Number of counties, townships, or districts having whole-time health services.

	JAN. 1 1931	JAN. 1 1932	DEC. 31 1932	DEC. 31 1933	DEC. 31 1934
Number	557	616	581	530	540
Increase or decrease		+59	−35	−51	+10

causes harmful to the public health. The responsibility of the federal government for national health is well established in the United States Public Health Service and in several other federal agencies such as the Children's Bureau, the Bureau of the Census, the Office of Education, the Food and Drug Administration, the Bureau of Home Economics, and the Bureau of Animal Industry.

(3) The precedent of federal aid to states for state health administration and local public health facilities has been established in various laws for grants-in-aid and in loans of technical personnel to states and localities.

(4) Public health has been demonstrated as a sound economic investment. Public health authorities estimate on good evidence that our annual national economic loss in wage-earnings and in other items incident to preventable sickness directly attributable to lack of reasonably efficient rural health service alone is over one billion dollars. On the other hand where reasonably effective health programs have been developed, it has been demonstrated that expenditures for carefully planned health programs executed by trained workers yield large dividends.

The necessity for federal aid in expanding existing health services throughout the country is further emphasized by the fact that the formerly inadequate appropriations by local, state, and national governments had been further reduced drastically in many localities during the depression. The experience of cities in 1934 showed that health budgets have been reduced on the average about 20 per cent since 1931, reductions varying from one and two per cent to as high as 50 per cent. Where this reduction amounted to 30 per cent or more, practically complete break-downs of the public health protective facilities have resulted. The proposals for annual appropriations under the Social Security Act were purposely made modest for the reason that the Committee's staff and its advisers recognized the necessity for slow and gradual, rather than hurried or sudden, expansion. Sufficient trained personnel, for example,

are not available to warrant the expenditure immediately of larger sums. In the interest of sound economy, the amount proposed for additional direct health work is therefore almost infinitesimally small in comparison with the tremendous sums which have been expended for more indirect methods of health conservation through relief, housing, and the like. Certainly the proposed public health expenditures are insignificant when compared with many other federal expenditures for purposes less vital to the well-being of the population.

It was anticipated by the Committee's staff that this proposed sum should not be curtailed by the kind of false economy already referred to. On the contrary, increasing appropriations on the part of the federal government for aiding the states and localities and providing health services were regarded as inevitable. If one may express a personal opinion or venture an estimate, I would say that within the next decade or so, federal appropriations for health services and health facilities should reach the sum of not less than 50 cents per capita and perhaps as much as $1.00 per capita, in addition to state and local funds. Even this—say a minimum of $65,000,000—would be a relatively small investment in so priceless a thing as improved physical and mental health of the people who compose the nation.

II

Each health officer and individual interested in health should exert every influence he possesses to encourage adequate appropriations on the part of federal, state, and local governments. It should be realized, however, that appropriations of public funds for public health place upon health authorities a very definite responsibility for the effective use of the money. This responsibility has not always been adequately discharged in the past. For example, many years ago Dr. Charles V. Chapin, in Providence, Rhode Island, showed that the disinfection and fumigation of

houses in which cases of communicable disease had resided was a useless expenditure of public funds. Yet, in spite of this, the practice of indiscriminate disinfection and fumigation was kept on, long after its worthlessness had been demonstrated. Over ten years ago, in an illuminating address on "Rendering Account in Public Health,"[3] Dr. W. H. Frost pointed out:

> As various lines of activity are suggested to him (the health officer) by contemporary practice or urged upon him by special propagandists it is his duty to consider what returns are to be expected from each one and to decide how much of his capital he will put into each one. Since his capital comes entirely from the public, it is reasonable to expect that he will be prepared to explain to the public his reasons for making each investment, and to give them some estimate of the returns which he expects. Nor can he consider it unreasonable if the public should wish to have an accounting from time to time, to know what returns are actually being received and how they check with the advance estimates which he has given them. Certainly any fiscal agent would expect to have his judgment thus checked and to gain or lose his clients' confidence in proportion as his estimates were verified or not.

The present writer, at about the same time, in an attempt to discuss methods of measuring results of public health work, observed that the necessity for rendering an account "is in line with the increasingly critical attitude on the part of sanitarians in appraising the effectiveness of their work." I venture to quote the following from an earlier paper:[4]

> As the objectives of a social program such as the improvement of public health become more clearly defined, and as the methods of carrying out a program are improved, the more rigid must be the standards and the more accurate must be the means by which we must measure the efficacy of the

[3] Frost, W. H.: Rendering Account in Public Health. *American Journal of Public Health,* May, 1925, xv, No. 5, pp. 394-398.

[4] Sydenstricker, Edgar: The Measurement of Public Health Work. Annual Report of the Milbank Memorial Fund for 1926.

> program and the efficiency of the methods. No longer can the mere "putting over" of a project be regarded as the final test of success; for while undoubtedly it is an essential step in the accomplishment of a specific project, the final criterion is the ultimate result—the prevention of a given disease, the lessening of sickness and death from specific and related causes, and the promotion of health to a discernible degree.

The necessity for the scientific evaluation of each specific public health procedure is greater now than ever before. This is true not merely because of the probability of increased appropriations for public health but also because a great deal of public health work has undergone a process of standardization. The more it becomes standardized, the more easily and, at the same time, the more rapidly can it be put into wider operation when the necessary financial support is available. If a given standard procedure is not a scientifically tested procedure, a definite and grave danger is involved. An uneconomical or ineffective procedure, for example, may, by the very process of standardization, be adopted by many communities with the result that its improvement or its eradication would be all the more difficult for no other reason than its routinized application on a large scale. The appraisal form, for example, which has been developed carefully through many years of earnest and hard work, has undoubtedly rendered a service of tremendous value. It is a "yardstick" method for measuring public health work. The yardsticks it contains have not always been altogether accurately calibrated, however. Such a statement does not in any way place any blame upon those who have devised the yardsticks since the yardsticks represent the best opinion and experience at the time. But unless the public health procedures such as are set forth in the appraisal form, or in textbooks on public health administration, or in standards set forth by official or nonofficial agencies, are continually put to the test of actual efficiency in accomplishing their specific objectives, we cannot be sure that

all of our present appropriations for public health are used to the best possible advantage. The Committee on Administrative Practice of the American Public Health Association has, itself, recognized these dangers inherent in the establishment of standards, and has periodically reviewed the standards. Unfortunately, they have not always had available data by which they could evaluate the accomplishments of a procedure as much as the extent of its application.

This is not idle nor destructively critical comment. By way of illustration, one may properly ask: What are the scientific bases or the actual experience upon which are based some of our public health standards? We call for eight visits of a public health nurse to each and every case of whooping cough. This standard, as is well known, is rarely measured up to and more than one health officer has asked himself the question: What evidence is there of prevention of mortality from or reduction in incidence of whooping cough by eight visits rather than by four or two or one? Or again, school medical examinations have become so wide-spread and so routinized that they involve a not inconsiderable portion of the health budget. The health officer properly may have reasonable doubts as to the efficacy of school medical examinations as they are now carried out in practice. And so the entire list of public health procedures might well be viewed in the light of a healthy skepticism, not for the purpose of tearing down what has been so carefully set up, but for the purpose of improving the procedure itself.

In the scheme of public health, therefore, it seems clear that this healthy skepticism should be met by providing facilities for scientific testing of most procedures now in operation and of each new procedure before it is put into operation on a wide scale, and of each standard by which the application of procedures is measured. A beginning has been made along these lines by some of the foundations interested in public health, by individual health officers here

and there who have the point of view which actuated Dr. Chapin for many years, and by the United States Public Health Service through the newly created Office of Studies of Public Health Methods as well as in the laboratories of the National Institute of Health.

Since the Federal Public Health Service and the Federal Children's Bureau are primarily charged with the responsibility (within certain prescribed limits) for allocating grants-in-aid to states, it is obviously necessary that these agencies should possess the facilities for the evaluation of the public health procedures for which the grants are to be made. The staff of the Committee on Economic Security had this function in mind when it proposed to the Committee that $2,000,000 additional should be appropriated to the Public Health Service for research and for additional personnel in order that the Service, through its own Division of Research, the National Institute of Health, and in cooperation with universities and other institutions, might undertake and encourage the task of testing public health methods. If this relatively modest sum of $2,000,000 is seriously curtailed by the policy of horizontal cuts in appropriations, without regard to the importance of the purposes for which the appropriations should be made, one of the primary objectives of true economy in public health work will be hampered. Doubtless other agencies including foundations, universities, and local health departments, will continue to contribute to the scientific evaluation of public health procedures but the leadership and aid of the federal health agencies are greatly needed.

III

Thus the public health profession and the Congress and the Administration have before them a problem of vital importance. It is a question of whether that type of false economy which has prevailed so long in federal expenditures for health shall be per-

sisted in, or whether true economy shall prevail at this time when, as Dr. Bishop has said, public health is "at the cross-roads of opportunity." The appropriations authorized in the Social Security Act are extremely modest. In the framing of this Act, careful consideration was given to the principles of true economy. The members of the staff of the Committee on Economic Security, to whom was assigned the general subject of health, estimated that not $14,000,000 but a minimum of $24,000,000 was needed to assist states and localities in providing even minimal health services of proven value. But in view of the lack of facilities and personnel and the time required to train personnel and provide facilities, the total amount proposed was scaled down by over 40 per cent in the interests of true economy. In other words, to use a phrase familiar in the making of budgets, there was no "padding" in the final estimate. A further reduction in the appropriations authorized would seriously curtail the very modest and practical program proposed. Furthermore, it was intended by the Committee's staff and its advisers that this program should be limited to federal aid for public health procedures of *proven* value. It was anticipated that larger appropriations would be made in succeeding years, as new procedures are found to be effective by scientific tests and by experience.

Economy in public health, therefore, demands adequate appropriations for providing health services of proven effectiveness in every locality according to its needs. It places a definite responsibility upon health authorities for efficient administration of funds appropriated. Efficient administration requires competent personnel for carrying on such public health procedures as have been proven to be effective and adequate facilities for discovering, through research and experimentation, new procedures as well as improving existing ones by scientific methods.