Improving Performance in Public Health

HERMAN E. HILLEBOE, M.D.

GOALS must pass the tests of consent and feasibility before they can qualify as realistic goals. Once we have identified goals, we get into the business of measuring progress toward them.

What we need to develop in every administrative or supervisory person in a health department or agency is a "measurement" point of view. Simple things, which the staff can discuss and puzzle over freely: how to make home nursing visits less frequent and more effective, how to inspect X-ray machines and get doctors to cut down radiation exposure, how to use nonprofessional workers to replace scarce and costly professional personnel. These are the daily tasks that require study and can be made more productive if someone will take the time and effort to scrutinize them regularly. Once these improvement techniques are learned and applied it is only natural for the health officer and his colleagues to find themselves with an urge to go on to measuring bigger activities—doing evaluative studies on a broader, long-term basis. Let us look at some examples of evaluative studies in the general area of our future needs.

School Health

School health education and medical services are areas of child health crying for critical investigation. In schools, we can teach health as an integral part of the learning process. Equally important, we can demonstrate good health practices by examining children, by followup corrective measures, and by encouraging healthful physical activities. To do these jobs we have willing, dedicated personnel in health, physical education, and recreational positions.

Unfortunately, much of what passes for school health education is outdated. In addition, we have scant data on what school pupils actually know about their health and put into use.

The high-speed annual physical examination is mass medicine at its worst. The visiting physician spends a minute or less with each child. The ritual includes a quick look in the mouth for enlarged tonsils, a hurried auscultation of the heart region to pick up murmurs, and a hasty glance for orthopedic defects. All too often this procedure passes for a physical examination.

But even when the annual school physical examination is more thorough, its benefit may be doubtful. Evaluative studies by Yankauer and associates hint strongly at this (*1*). Their aim was to measure the casefinding value of periodic medical examinations of school children. In the first 4 years of elementary school in Rochester, N.Y., they found that this method had little value in detecting physical defects. The study group ingeniously separated the degree of handicap from the degree of remediability in scoring the community on correction of defects found.

These investigators also measured in Albany (N.Y.) schools the effectiveness of finding adverse conditions through (*a*) referral by classroom teachers, (*b*) growth chart records, (*c*)

Dr. Hilleboe is DeLamar professor of public health practice, Columbia University School of Public Health and Administrative Medicine, New York City. *This paper is excerpted from the second annual award lectureship on public health, presented at the 59th Annual Health Conference in New York City, June 12, 1963. The full text appears in monograph No. 2, issued by Health Education, Inc., Albany, N.Y., December 1963.*

yearly questionnaire for the parents, and (*d*) review of absenteeism. (Screening methods to detect visual and hearing losses and dental defects were not included in the studies because of their obvious benefits when properly performed.) Referral by the teachers and questionnaire for the parents were found to be the most effective casefinding methods.

Maternal Deaths

Mortality and morbidity associated with childbirth are other areas that can be improved. Rates have dropped markedly in the past 40 years but there is still room for improvement. Even 5 maternal deaths per 10,000 live births are too many in view of the knowledge we possess on preventing serious illnesses among pregnant women and handling deliveries safely.

Godbar recently reported on the benefits of routine inquiry into maternal deaths in England and Wales (*2*). During the course of these evaluative studies over a 10-year period, the maternal death rate was cut in half. He thinks these mortality rates can be halved again.

Environmental Hazards

Perusal of the public health journals for the past few years shows a glaring scarcity of evaluative studies of the control of environmental hazards.

Two examples demonstrate what can be done. Pyatt and Rogers estimated the benefit-cost ratios for water supply investments in Puerto Rico (*3*). Such ratios have been used in the past for public works such as dams and highways, but seldom for public health. The investigators wanted to determine, in terms of mortality, morbidity, and decreased debility from waterborne diseases, the benefits of investing money in a municipal water supply. The methodology developed affords a formula for estimating the money value of man in relation to water supplies and for formulating policy decisions in developing areas.

The other study had to do with housing and health. Wilner and associates decided to measure the effects of housing environment, especially the health aspects, on family life (*4*). They chose to study 1,000 low-income families in Baltimore, Md. The test group had moved into new housing from slums. The control group had remained in the slums.

The controls under 35 years of age had more serious episodes of illness and longer periods of disability than the new housing group. Different housing did not appear to affect the outcome of pregnancies or the general morbidity of persons 35 to 39 years of age. Measurements of intelligence and school achievement of the test and control children were closely similar. However, the school promotion records were better for the test children than for the controls.

Fragmentation of Services

Where does the health department fit into the medical care picture? Frankly, nowhere in too many States and communities. But it should! It has the health experts with training and experience to guide the orderly growth and development of medical services. To be sure, several State and local health departments carry on extensive medical care services for mothers and babies, handicapped children, the tuberculous, the cancerous, the mentally disordered, and others. Some State health departments even supervise comprehensive services for the medically indigent on public assistance.

A major medical care concern is the fragmentation of services among official agencies, both State and local (*5*), and among voluntary health agencies as well. Make a survey of the situation in your own community and you will be startled by what you discover. We cannot achieve effective performance if medical care services are fragmentated or needlessly duplicated. What we need desperately are governmental leaders willing to risk the political consequences of changing old ways of doing things.

Rehabilitation of Chronic Patients

Heart diseases, cancer, cerebral-vascular-renal diseases, arthritis, and mental disorders consume increasingly more of our medical skills and facilities. For most of these afflictions the cause is unknown, and treatment is not per-

manently curative except in a few forms of heart disease and cancer. We have no choice but to concentrate our energies on early diagnosis, palliative therapy, and medical rehabilitation.

That this type of patient can be helped by rehabilitation was demonstrated by Schlesinger and co-workers on 99 totally and permanently disabled recipients of public assistance (*6*). Over 50 percent of these patients showed improvement after intensive rehabilitation services.

Meyer and Borgotta conducted an experiment in the rehabilitation of mental patients by studying a social agency program, known as the Altro Health and Rehabilitation Services (*7*). Some practical and surprising insights came from the study. The investigators were surprised to learn that it was difficult to get enough subjects for a controlled study in spite of the hundreds of potential candidates. They also found it was hard to get the experimental subjects to accept formal rehabilitation services in a center established for that purpose. These two observations point up the need for including health education of patients and their families in any plan to give followup care to patients discharged from mental hospitals. Public health nurses can contribute significantly to the development of educational and other followup services in the home. They should be in on the planning for such services before patients leave the hospital.

TB Casefinding and Treatment

Fleck and co-workers studied two methods of casefinding in tuberculosis (*8*): One method concentrated on general community surveys, the other on persons admitted to general hospitals. Small film radiography was used in both instances. The authors analyzed surveys made in upstate New York from 1952 to 1958, and learned that hospital admission surveys turned up a higher proportion of active tuberculous cases than community surveys. Among hospital admissions, the number of active cases was considerably higher for persons over 25 years of age than for those 15 to 24 years of age, and twice as high in cities with more than 80,000 population compared with cities of less than 20,000 population.

This evaluative study clearly showed that in upstate New York active cases of tuberculosis were detected at less cost when mass radiography was confined to areas of more than 80,000 population and persons over 25 years of age, excluding school populations and government employees. For the same money, 5 active cases per 10,000 films, rather than 3, were found.

Ever since the discovery of the cause of tuberculosis, arguments have arisen over the relative merits of home versus sanatorium treatment. Persuading patients to accept hospital treatment is a continuing struggle. Economic, social, and cultural factors are involved, as well as medical ones.

With the advent of chemotherapy about 20 years ago, the controversy flared up anew. Strange as it may seem, no controlled study was carried out until the Tuberculosis Chemotherapy Center was established in Madras, India, in 1956, under the joint auspices of the Indian Council on Medical Research, the State Government of India, the Research Council of Great Britain, and the World Health Organization.

This carefully controlled study showed that despite the manifest advantages of sanatorium care (rest, adequate diet, nursing care), the results of chemotherapy in the home differed little from the results obtained in the sanatorium (*9*).

Incidentally, in the Madras study, it proved easier to get treatment cooperation from patients living at home in the 12-month followup period than from those who had had sanatorium care. Also, one of the valuable by-products of this study was the finding that higher doses of medication given twice a week were equally as effective as daily doses (*10*).

The studies of Palmer's co-workers, Ferebee and Mount, on the preventive benefits of isoniazid in the treatment of primary tuberculosis in children and the prophylactic use of isoniazid among household contacts are models of public health methodology (*11,12*). Preventing the occurrence of disease still remains our method of choice in public health practice. I wonder how many health officers have put these findings into practice in their tuberculosis control programs? The goals, methods, and results are crystal clear.

Accountability

The major share of public budgets in the future will most certainly go to the departments and agencies that develop and use the best systems of accountability. Gone is the day of "open end" budgets. From now on we had best begin regarding our promises as firm commitments which we will account for at regular intervals. If we do this well, we will not have to traffic in uncertainties. Instead, we can hold up the shiny coin of proved performance—the new coin of the realm in governmental operations.

The age of accountability is upon us. If we strain against it, we will plunge ourselves into the obscure backwash of ceremonial duties. It has happened to others in the past. It can happen to us in the future. But if we accept accountability as a way of thinking and a way of life, we can propel public health to a grand new era of achievement and acclaim.

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Conference Calendar

February 10–11, 1964: Air Pollution Medical Research Conference of the California State Department of Public Health, Los Angeles. Information: John R. Goldsmith, California State Department of Public Health, 2151 Berkeley Way, Berkeley, Calif., 94704.

March 9–11, 1964: National Health Forum, Pittsburgh, Pa. Information: Arthur J. Grimes, National Health Council, 1790 Broadway, New York, N.Y.

April 22–24, 1964: Southern Branch, American Public Health Association, Floridian Motor Hotel, Tampa, Fla. Information: George V. Truss, P.O. Box 2591, Birmingham, Ala.

April 29–May 1, 1964: National Conference on Homemaker Services, Washington, D.C. Information: Mrs. Grace W. Bell, Bureau of Family Services, U.S. Department of Health, Education, and Welfare, Washington, D.C., 20201.

August 3–7, 1964: Mental Health and Industrialization, Berne, Switzerland. Under auspices of World Federation for Mental Health, Central Secretariat, 1 Rue Gevray, Geneva, Switzerland.

October 11–15, 1964: International Congress on Diseases of the Chest, Mexico City. Deadline for summaries of papers: March 31, 1964. Information: Dr. Murray Kornfeld, American College of Chest Physicians, 112 E. Chestnut St., Chicago, Ill.

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