

ANNOTATIONS

TOMORROW'S HORIZON IN PUBLIC HEALTH¹

THE Public Health Association of New York City sponsored a one-day program in January, 1950, entitled "Tomorrow's Horizon in Public Health." This meeting brought together specialists from many branches of the public health field to prognosticate the role of public health agencies in an era of increasing state participation in public health and to discuss the broadening scope and interpretations of the "newer epidemiology."

The increasing participation and responsibility of the state in public health work was discussed by two of the speakers. Dr. Smillie² traced the state's participation in public health from its very minor role in the early history of this country to its more active role today. He spoke of the increasing responsibility of the state and hopes that it will gradually emerge "with a comprehensive, serviceable, practical program that meets the needs of all people, yet does not violate the basic principles upon which American life and American character are founded." Dr. Galdston³ spoke of the continuing need for and future role of the voluntary health organizations as their present functions are gradually absorbed by the state. "They should collectively be concerned in and with the development and the application of those knowledges which favor the optimal growth, develop-

¹ Transactions of the 1950 Conference of the Public Health Association of New York City. New York, 1950, 109 pp. Price \$1.00. This volume can be obtained from Mr. Charles A. Freck, Secretary-Treasurer, New York City Public Health Association, Queensboro Tuberculosis and Health Association, 59-29 90th Avenue, Jamaica, New York.

² W. G. Smillie, M.D., Professor of Public Health and Preventive Medicine, Cornell University Medical College, New York City. N. Y.

³ Iago Galdston, M.D., President, Public Health Association of New York City.

ment, and function of the individual. They should shift their major concern from disease to well-being."

The "newer epidemiology" was the topic of four papers presented at the meeting. The evolution in the meaning of the term "epidemiology" was discussed; from the simplest definition from the Greek "epi" meaning "among" and "demos" meaning "people" to the more expanded definition of August Hirsh in 1883, "a science which will give firstly a picture of the occurrence, distribution, and types of diseases of mankind in distinct epochs of time at various points on the earth's surface, and secondly will render an account of the relation of these diseases to the external conditions surrounding the individual and determining his manner of life." Each discussant also elaborated this definition from his own experience.

Dr. Gordon⁴ in his paper "The Newer Epidemiology" suggested the term "medical ecology" to express the broader concept of epidemiology today. He said, "If the morbid conditions of man are the result of reactions between the human host and his environment, then all mass disease conceivably is to be interpreted in terms of three principal factors, which are host, agent, and environment. Thus regarded, disease and injury, and also the physiologic state, are recognized as ecologic phenomena, and amenable in their group manifestations to the methods of epidemiological analysis. Epidemiology is viewed as a biologic discipline applicable to all diseases where groups of persons and things are involved." Dr. Gordon also emphasized the supplementary roles of clinical medicine and epidemiology in public health today. Each can contribute to the study of the new concept of "multiple causation" of disease and to the identification of the normal state or health.

Dr. Kruse⁵ in his paper "Nutrition in the Light of the Newer Epidemiology" discussed the interdependence of epidemiology and the other sciences, particularly biology and medicine. Knowledge of the epidemiology of a disease is arrived at by drawing first from one "discipline or aspect" then another, and thus progress is often interrupted because knowledge in all of

⁴ John E. Gordon, M.D., Professor of Preventive Medicine and Epidemiology, Harvard University School of Public Health, Boston, Massachusetts.

⁵ H. D. Kruse, M.D., Milbank Memorial Fund.

the component fields does not progress at an even pace. Also, "current vogues in thinking, adherence to tradition or weight of authority, and a natural inertia" resist change and create a lag. Dr. Kruse illustrated these points by tracing the slow development in the knowledge of the etiology of the deficiency diseases. Many epidemiological aspects of the diseases were known but not their causation. Through evidence amassed in animal experiments, it gradually became evident that there was a "category of deficiency diseases which shared a similarity in their pattern of causation." However, the "germ-toxic" concept was so popular at the time that it preoccupied all thinking. By further experimentation, however, it was demonstrated that each deficiency disease could be prevented or corrected by the addition of an essential nutrient or vitamin to the diet. This evidence led to the belief that "poor diet is the one and only cause of the deficiency diseases." However, further study led to the theory of multiple causation of the deficiency diseases. "Economic level, geographic region, and age" were found to be important factors in malnutrition as well as a diet lacking in the essential nutrients.

"Tuberculosis in the Light of the Newer Epidemiology" was discussed by Dr. Perkins.⁶ Epidemiology was formerly concerned only with the study of epidemics, but Dr. Perkins suggested that, since epidemics are not clear-cut entities but "merely relatively short-term waves of incidence in excess of normal incidence," the newer epidemiology must also concern itself with normal incidence. He suggested that the study of "mass pathology" concern itself with endemic as well as epidemic incidence of all stages of health from very severe illness through the milder stages of illness to include health itself. He suggested broadening the scope of epidemiology to include non-communicable diseases as well as health but cautioned that this should be done in addition to and not at the expense of the epidemiological study of the communicable diseases such as tuberculosis. The broader epidemiological view of the multiple causation of tuberculosis was discussed and also the need for studies as to the relative importance of factors such as low economic status in contributing to tuberculosis.

⁶ James E. Perkins, M.D., Managing Director, National Tuberculosis Association.

Dr. Felix⁷ in his paper "Permutations in Psychiatry and Public Health" stressed the interdependence of the mental health and public health programs as the emphasis on mental health increases. Dr. Osborne's⁸ paper on "Public Health and the School" also emphasized the growing realization of the need for the integration of public health and mental health work with special reference to the children in the schools.

Dr. Ginzberg⁹ concluded the series with a paper entitled "Public Health and the Public." He stressed the mutual need for guidance—the contributions that the public health workers can make to the public and that the public can make to the public health workers.

Many of the speakers stressed the need for a broader outlook and less parochialism in future public health work. They suggested horizontal integration of effort among the various public health agencies rather than the older isolated vertical approach to the study of a disease. They advocated a broader interpretation of epidemiology and stressed the theory of multiple causation of diseases. All of the papers were forward-looking and gave the impression that, as Dr. Ginzberg summarized, "we can expect to develop not only better health services, but a better society" in the future.

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⁷ Robert H. Felix, M.D., Director, National Institute of Mental Health, United States Public Health Service.

⁸ Ernest G. Osborne, Ph.D., Professor of Education, Teachers College, Columbia University.

⁹ Eli Ginzberg, Ph.D., Associate Professor of Economics, Columbia University.