

## A MODERN NUTRITION PROGRAM IN A STATE HEALTH DEPARTMENT

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**N**UTRITION in public health is neither a physical nor exclusively a medical science. A complete knowledge of the nutritional needs of the human body would not enable us to insure a fair distribution of these dietary requirements to all people. Nutrition is a medical and social science wherein we must consider not only the necessary dietary requirements of the human body but the ability of the people to purchase these foods and to prepare and cook them properly. A public health nutrition program, therefore, is concerned with a two-fold objective: first, to disseminate information relative to dietary requirements, facilities for obtaining food, and manner of preparation; second, to stimulate people to use this information personally (not just store it away) and to guide them in putting it into practice.

Public health in itself is an even broader field of social science. In its complete galaxy there are many areas of special fields. The engineer, the nutritionist, the dentist, the nurse, the educator, the political scientist, the personnel manager, the doctor, and many others make their contribution toward the administration of an effective public health program. It would be foolhardy to contend that public health nutrition is the exclusive field of the nutritionist. The engineer has an important role in nutrition, for a potable water supply, free of disease-producing organisms, is essential to good nutrition. The epidemiologist and the sanitarian play a vital part in the program by making possible the elimination of disease-producing organisms intrinsically present in some foods, such as trichina, and by minimizing the contamination of food by gastro-intestinal organisms, or enterotoxin of staphylococcus.

Food must not only be nutritious but safe. It must not only have preserved in it the various minerals and vitamins and be selective as to proper content of carbohydrates, fats and

proteins, but it must also be free from bacterial and other disease-producing organisms.

A further need must be met if the food, which is safe and nutritious, is to be of benefit to the individual who consumes it. Sometimes people who are fed apparently adequate meals consisting of food which is free of disease-producing organisms are malnourished. Even when meals complete in all the dietary essentials and prepared so as to preserve the nutritional elements are made available, there is no guarantee that the person who eats the meals will be able to assimilate the food and thereby sustain his existence. If the individual is to benefit from his food, he must be able to assimilate it. Proper digestion and absorption are prerequisites to good nutrition. Good physical health alone is not enough for we know that mental aberrations and even temporary anger and anxiety may adversely affect a person's ability to eat and severely upset his gastro-intestinal tract so as to interfere with proper digestion. Therefore, maintenance of the body at optimal mental health is also important if the nutrition program is to be of value to the individual.

In our complex civilization we sometimes overlook the fact that the distribution of food is dependent upon the sound economy which results from peace among nations. International, national, and local health workers as well must recognize the many factors which are controlled by governmental authorities and those which are determined by political or economic strife. An adequate distribution of food must be made to all—not the people of one nation alone—but to those of the whole world. All of us know that people die from pestilence, starvation, or lack of shelter. Sometimes these are isolated deaths, but frequently thousands of people are involved. Food, shelter, and protection from the elements are essential to good health. Without them the work of the health department and the nutrition workers may not only be hindered but in some instances may be completely abrogated. Therefore nutrition may be described as a social science in which the provision of an adequate diet, the maintenance of optimal physical and mental health,

and the availability of food, shelter, and protection from the elements are essential features.

Nearly one hundred years ago Lemuel Shattuck, teacher and book seller of Concord, made his classic sanitary survey of health conditions in Massachusetts. He was amazed to find that an incomprehensibly large number of people died at an extremely early age. These young people, dying in the prime of life, represented an irrevocable loss to the community. Mr. Shattuck and his committee made many constructive suggestions as to ways in which living conditions throughout the Commonwealth might be so improved that all its residents could survive long past their "thirties" and mature into independent citizens each capable of earning his own living. One of the early results of this survey was the establishment in Massachusetts, in 1869, of the first State Board of Health in the United States.

The first nutritionist, as such, was not employed in Massachusetts until 1917. She was called a Health Instructor in Foods. She distributed information pertaining to nutrition by various educational media; she gave talks, developed very interesting pamphlets, worked with various committees, and made herself available for consultation service. The rural school lunch program received its first impetus at this time. In 1922, a second nutritionist was added to our staff and she gave courses to teachers, nurses, and other professional personnel. Gradually, over the years, the nutrition program in Massachusetts has expanded until at the present time we employ twelve nutritionists in our State Department of Public Health. In addition, thirty-five more are employed by various local community agencies. Thus, our Commonwealth has forty-seven nutritionists or slightly more than 10 per cent of all the nutritionists employed in the United States.

The modern nutrition program in a community must encompass all of the elements which we have already outlined. The State nutritionists in Massachusetts work in eight geographic areas described as districts. In each of these districts there is a

staff of professional personnel, all of whom are interested in the field of nutrition and all of whom may disseminate nutrition information to the many contacts which they make each day. This corps of workers meets at regular intervals in staff conferences, and opportunity is provided for the exchange of information and the planning of programs. The nutritionist can, therefore, imbue her fellow associates not only with a desire to preach the gospel of nutrition but also can offer them effectual information on nutrition, and hints for effective use of such information. She can take this occasion to report on the newer developments in the field of administrative nutrition as well as in the basic science dealing with nutritional requirements. The program is certainly not limited to the activities of the nutritionist.

The work of the District Nutritionist is directed administratively by the District Health Officer, who is in effect a deputy of the Commissioner for the region which he serves. For her technical guidance, she turns to the Chief Supervisor of the Bureau of Nutrition at the State House. Here, with the assistance of Advisory Committees composed of experts on nutrition and allied fields, plans are formulated for specific administrative nutritional programs. These plans are then jointly approved by the Chief of the Nutrition Bureau and the Director of the Division of Local Health Administration. Since it is important that a program of this kind be coordinated with all the other programs of the Department, the plan is then discussed by the Division Directors of the Department. Next the plan must be approved by the District Health Officer and then the new nutrition program is introduced into the district. In this way it is possible not only to coordinate programs but also to insure more complete coverage of all fields of public health activities in all geographic areas and to avoid undue emphasis or undue pressure on any one program or any one geographic area.

Not all the local or community nutritionists are employed by official health departments nor are all of them full-time per-

sonnel. The nutritional service available to the citizens on a per capita basis varies a great deal in different communities throughout the State. In addition to services rendered by local nutritionists, State nutritionists advise, consult, and guide the local programs. In areas where nutrition programs are not locally available, the Department provides some of the direct services on a demonstration basis.

Our nutrition program is often further advanced by other professional personnel of the Department. For example, restaurant sanitation is an important aspect of our program on both district and local levels. From time to time we make surveys of all food-handling establishments in various communities. Such surveys are carried out jointly by State and local health department personnel. In these surveys we endeavor to inform such establishments not only of the proper methods of handling food and food utensils, but also of the manner in which food may be prepared and served attractively and still retain the nutrients.

School lunch and industrial cafeteria programs are another important part of our program. The teaching of proper dietary requirements and habits to children is perhaps the most effective facet of any nutritional program since we are working with a group of the population which is most susceptible to education and which can carry information into the home. A health education program, no matter how well planned and executed, is of no value unless the information which it endeavors to distribute is utilized in the home. Women's clubs, parent-teacher associations, and even men's service clubs are areas of activity in which information on nutrition is disseminated, not only by our nutritionists but also by our district health officers and other Department personnel.

The preparation of pamphlets, exhibits, newspaper releases, talks, and other educational material is a joint effort in our Department. The idea usually originates with the professional person who is to present the material. In the field of nutrition studies, it is usually the nutritionist. But if the talk or article

also covers various aspects of Departmental activities, the first draft of the material is prepared by the physician and reviewed by the professional persons in the nutrition field. Next, the material is reviewed and revised by experts in public health education and public relations in the Bureau of Health Information. By these means we endeavor to serve the dish of nutrition in an attractive and acceptable manner so that it will be assimilated by individuals who will best benefit by the actual utilization of this information.

Dentists and dental hygienists in our Department realize the importance of nutrition in the formation of proper teeth. Doctors and nurses in well-child conferences and in their daily contacts with the public constantly participate in the furthering of our nutrition program.

The Division of Food and Drug Control, in addition to carrying on its duties of establishing standards of quality and quantity of food, is in a position to promote the sale of food and drugs which are prepared in accordance with accepted methods and delivered to the public in proper condition. From the analysis of vitamin preparations for content to the analysis of hamburger for rancidity, putrefication or the addition of cereal or preservatives, or other adulterants, the Division of Food and Drugs is constantly on guard to insure safe and nutritious foods for the public. An excellent example of such work is the constant battle which we are now waging against the use of mineral oils in salad dressings.

Food is and always will be one of the basic needs of life. Health departments, however, in working out their programs of nutrition must not over-zealously assume that they are the only authorities capable of furthering the science of nutrition. Many other agencies in the community can be of great value to the health department in its program and every effort should be made through health councils both on the state and local level to coordinate the work of all agencies in the health field. Special subcommittees of such health councils may well devote their attention to the field of nutrition so as to provide ade-

quate programs and insure complete coverage of the field of nutrition thereby meeting the needs of the community. Only by coordinated planning on a community, a state, or the national level, and by the best use of the facilities of the voluntary health agencies, the industries and commercial establishments, can we beneficially carry on a good program. Constant evaluation of procedure and willingness to accept changes and improvements are essential if any public health program is to help us to attain our fundamental objectives, which are the prevention of disease, the prolongation of life, and the attainment of optimal health.