

SUGGESTIONS ON THE ORGANIZATION AND FUNCTIONS OF STATE HEALTH DEPARTMENT NUTRITION PROGRAMS FOR WORKERS

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KNOWLEDGE of the factors generally responsible for malnutrition, of their relative importance and of their amenability to corrective procedures is a requisite for the conduct of effective nutrition programs. The most important causes of malnutrition in the United States are poverty, ignorance, poor food habits, and the inability to obtain the proper foods or nutrients because of inadequate production, shipping, storage, and preparation of foods, or inadequate food service facilities and, especially in the case of industrial workers, insufficient time to eat properly. In addition, factors such as physical stress, exposure to toxic substances, and disease may increase requirements or interfere with the absorption or utilization of certain nutrients and thus be responsible for the development of nutritional deficiency states.

Not all of these causes are of the same order of importance in all parts of the country, in all sections of any one state, or in all industries. The states vary in the extents to which their populations have been educated, as do urban and rural areas. Certain industries demand and obtain workers relatively well educated. The mass of workers in some other industries can barely read and write. Workers in some industries and occupations are well paid, others very poorly. Some states average much higher per worker incomes than others. Some occupations are seasonal with long periods of unemployment. Among some sections of the industrial population and in some parts of the country, traditional food patterns are more rigidly observed than in others. Much industrial work is light or only moderately heavy, but some is quite strenuous. Some workers are subject to exposure to toxic substances and others work long hours under unfavorable environmental conditions. Transportation and food production, processing and storage

facilities and practices vary from excellent to the near primitive.

It would seem, then, that the first step to be taken by a state health department, in developing a nutrition program for industrial workers, should be the definition of the problem, in terms of the prevalence and severity of malnutrition in the various sections of the working population within the state and in terms of the factors responsible for the malnutrition observed. It is presumed that the health department has defined the term "worker" sufficiently well for this purpose. For an effective program it should include not only those employed at present but also their families and those unemployed who constitute the reservoir from which additional help is drawn as needed.

The next step should be an evaluation of the more important causes of malnutrition in terms of those most vulnerable to attack and in terms of the types of remedial measures most likely to be effective and which are within the province and potentialities of the health department. It is essential to plan for both short and long-term results. Any one who has engaged at all extensively in public health work knows how very difficult it is to maintain public interest and cooperation in long-term projects that are devoid of immediate, discernible benefits. Furthermore, the immediate present is almost, if not quite, as important as the future.

It has been my experience that state health departments are prone to be conservative and are more likely to underestimate their potential effectiveness in public health projects similar to the one under discussion than to overestimate it. I have in mind the fact that a universal cause of malnutrition is poverty, one that might seem at first glance to be beyond the power of a state health department to affect. Yet there is much that can be done, within the legitimate province of the health department, to ameliorate the effects of inadequate incomes. The active promotion and continued guidance of in-plant feeding programs, with the opportunity they provide workers to obtain adequate meals at relatively low cost, is

such a measure. Others include education of workers and their families about low-cost adequate diets; help with budget planning (it must be borne in mind that food constitutes only a fraction of total living cost); education of the state's industry and the general public on minimum living costs and the importance of adequate diets for workers; cooperation with the state education and the state and Federal Agricultural Departments in the distribution of surplus agricultural commodities; the active support of food enrichment and fortification programs approved by such authoritative bodies as the Food and Nutrition Board of The National Research Council and the Council on Foods and Nutrition of the American Medical Association, and the intelligent advocacy of the use of nutritional supplements where indicated.

Regarding the minimum organization and staff needed by a state health department for the conduct of effective nutrition work, Dr. Harold Sandstead, Chief of the Nutrition Section of the United States Public Health Service, has written me that this staff should be headed by a medical nutritionist, who should have under his administrative control a number of nutritionists, a chemist, a laboratory technician and, depending upon circumstances, a number of nurses. According to Dr. Sandstead, the nutrition division should conduct spot surveys; furnish consultants to other departments within and without the health department; engage in nutrition teaching at universities and hospitals; operate clinics which would serve as training centers; assist in the improvement of diet practices in state institutions; act on a consultant basis to the industrial hygiene division of the health or labor department on meal planning and preparation and on the nutritional requirements of workers, and conduct general nutrition education programs. Dr. Sandstead believes the first task of the health department to be that of training physicians.

The staff just described would be concerned with the health of other sections of the population as well as that of the industrial worker, but the worker is an integral part of the whole

population of the state and his nutritional welfare cannot be solely the concern and responsibility of the industrial hygiene division and others engaged primarily in the practice of industrial medicine and hygiene. However, the state industrial hygiene division does have a special interest that should be recognized by the nutrition division of the health department. Definite responsibility for the industrial nutrition work should be assigned to a section within the nutrition division and the work should be carried on in close liaison with the industrial hygiene division. The solution of many problems arising in industrial nutrition demands special knowledge and skills not possessed by the majority of nutritionists and not acquired through sporadic visits to industrial plants. Many of the nutritionists employed by state health departments for work in industrial nutrition must acquire a large part of the needed experience while on the job. This can be assured only by designating specific long-term responsibility.

The employment of a few nutritionists will not result in any great improvement in the nutritional health of workers, if the physicians and other members of the health department then proceed to wash their hands of the matter, in the belief that they have it successfully departmentalized. Nutrition is an over-all medical and public health problem and, as indicated previously, it is affected by many and diverse factors, factors falling within the provinces of the physician, the engineer, the hygienist, the social worker, and the nurse, as well as those of the nutritionist and the dietitian. Industrialization poses problems of plant design, food service facilities, sanitation, optimum hours of work, lunch periods, shopping facilities, food and other living costs, population congestion, exposure to physical stress, exposure to noxious substances, transportation and housing, educational and recreational facilities, etc. All of which cannot be dumped into the lap of the nutritionist. I agree with Dr. Sandstead that one of the most important tasks of the health department is the education of physicians and allied workers in nutrition and its relation to health.

Many states and the United States Department of Agriculture were very active during the war and are still active in promoting feeding and nutrition programs for industrial workers. Practically all of these are entirely of a service nature, involving very little research and contributing little to the fund of knowledge concerning the health and nutritional requirements of American workers and their families. However, sufficient information has been made available by other agencies to fully justify such emergency service programs and I do not wish to decry them. For example, much has been published on the prevalence of malnutrition among the various economic and ethnic groups comprising our population and upon the factors responsible for it, sufficient to justify a considerably greater expenditure of money, time, and energy upon in-plant feeding than that actually spent to date. Incidentally, data for the year 1945 indicate that 78.0 per cent of all manufacturing establishments employing five hundred or more workers in the United States have in-plant feeding facilities and that 53.5 per cent of the workers in the plants with facilities are utilizing them for at least one meal a day (United States Department of Agriculture, Production and Marketing Administration: Report on Status of Industrial Feeding, March 15, 1946). These figures represent substantial increases over 1944.

I do wish to emphasize that there is so much of a fundamental nature to be learned in the field with which we are here concerned that state programs restricted solely to service activities should be regarded as expedients to mitigate the most glaring faults and to gain public acceptance of and support for more adequate long-term programs. The state health department should consider the acquisition, appraisal, and distribution of new information on the nutritional needs of workers and on procedures to meet those needs to be a major function of its nutrition division. It should maintain the closest possible working relationships with universities and other research and teaching institutions engaged in nutrition work within the state. Regular, annual meetings of representatives from the

nutrition divisions of all of the state health departments, to discuss mutual problems and present original papers, would undoubtedly do a great deal to advance the nutrition program in each state and I recommend this for your consideration.