

DEVELOPMENT OF NUTRITION POLICIES: HOW DIETITIANS ARE INVOLVED IN NUTRITION POLICIES*

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ÖZET: Besin ve Beslenme Politikaları: Diyetisyenlerin Rolü

İnsanlar güvenilir, uygun fiyatta, iyi kalitede, sağlıklı beslenme alışkanlığını geliştirecek besinleri satın alma ve tüketme hakkına sahiptir. Besin ve beslenme politikası tüm toplumun beslenme durumunu ve sağlığını düzeltmek ve geliştirmek amacıyla besin sağlanması konusunda hükümetler tarafından yürütülen aktivitelerdir. Besin, beslenme ve sağlık kavramlarının birbirinden ayrılmaz kavramlar olması sonucu sağlık ve tarım sektörlerinin işbirliği içerisinde çalışmaları büyük önem taşımaktadır. Besin ve beslenme politikalarının oluşturulması geniş bir bakış açısını ve sektörlerarası ve sektörleri işbirliğini gerektirir. Diyetisyen, hekim, hemşire vb. sağlık meslek grupları, ziraat mühendisleri, gıda mühendisleri, ev ekonomistleri vb. meslek grupları, ulusal ve yerel politika üreticiler, teknik danışma kurulları, sivil toplum örgütleri (Türkiye Diyetisyenler Derneği, Tüketici Hakları Derneği vb.), besin sanayii, toplu beslenme yapan kurumların temsilcileri, basın yayın kuruluşları bu işbirliğinde görev almalıdır. Diyetisyenler besin ve beslenme dalında aldıkları eğitim gereği beslenme durumunun saptanması, beslenme ve sağlık sorunları ve çözüm yolları, beslenme eğitimi konularında uygulama ve danışmanlık yapma yeteneğine sahiptirler.

Anahtar Sözcükler: Besin ve beslenme politikaları, diyetisyen

INTRODUCTION

People have a right to access to a supply of food that is safe, reasonably priced and of good quality, and healthy dietary habits should be promoted as a prerequisite of health (1-4).

A food policy is the outcome of legislation and government decisions aimed at securing the provision of food for the population, and it incorporates a wide range of measures for fiscal, trading, political, social or consumer protection reasons. A food policy does

not necessarily include any explicit consideration of health other than ensuring that sufficient food is available in a form that is safe, or free from microbiological contamination or toxic effects. A food policy is different from a nutrition policy; all countries have a policy on food even if they have none on nutrition. Nutrition policies cover the areas of both food and nutrition. Nutrition policy itself has many names as; food and nutrition policy, food and nutrition strategies, food and nutrition plans (5,6).

Food and nutrition policy is defined as a set of coordinated actions, based on a governmental mandate, to ensure the nutritional quality and safety of the food supply, affordable and properly labelled food to all population groups, to promote health and improve dietary habits (1-4). Nutrition policy actually rests on the premise that there is a causal relationship between diet and health (5).

Food and nutrition policy formulation and implementation requires a multisectoral and intersectoral coordinated efforts of the health sector; nutrition scientists (dietitians, nutritionists), other members of the health professionals (physicians, nurses etc.), agriculturalists, educators, national and local politicians, government advisers, nongovernmental organizations (dietitians associations, consumers associations etc), food manufacturers and food retailers, caterers and the mass media. Such a participation of several sectors and disciplines requires a large measure of respect for other disciplines, willingness to listen and to explain and time to get acquainted with the problems and possibilities in other sectors (1-3).

Nutrition policies must be formulated as an integral part of the national plans for economic and social development of the country and must be carried out by means of coordinated sectoral programs. Nutrition policy comprises everything from the establishment of organizational structure, surveillance of the situation, formulation of objectives, to the implementation of measures to attain the objectives (1-5).

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Organizational Structure

Some form of organizational structure is needed to carry out the nutrition policy. Most often the structure will consist of an advisory body and a political-organizational body-responsible for decision-making and policy planning (7).

An advisory body or other policy-making body is needed for the organization of food and nutrition policy or allocation of responsibility for coordinating and carrying out a food and nutrition policy. An advisory body links up with professional expertise in basic research, clinical work, public health nutrition and the social sciences, and also stays in active contact with consumers (7).

A political-organizational body has to see that the views of the advisory body are sought and taken into account in policy planning and implementation (7).

Food and nutrition policy should not be regarded as detailed proposals for specific programs but rather as broad policy concerning the effective integration of sectoral policies. In view of the complexity of food and nutrition problems and their intersectoral relationships it is essential that the food and nutrition policy unit should make the maximum use of the various technical support groups available in the country. Technical resources may be found in institutes of nutrition, agricultural marketing, food technology, statistics etc., the universities, various ministries. The main ministries to be involved are usually agriculture, health, trade and industry. The first step to be taken may well be establish a technical advisory group from professional expertise currently available with a knowledge of the technical aspects of research, and education programs in the field of nutrition (8).

Dietitians are educated specifically to understand nutrition needs and to deliver counsel and care. Dietitians and/or community (public) nutritionists, with a post-graduate training (depending on the country) can play a key role in providing the necessary technical support and are the important actors in the development and implementation of national food and nutrition policies (9-13).

Formulation of Objectives

A food and nutrition policy, before it can be implemented, requires clear and concise objectives indicating what one expects to obtain through policy implementation. The basic objective is a nutritionally healthy diet, based upon and evaluated according to ac-

cepted nutrient goals. The nutrient goals will in due course have to be translated into dietary guidelines. These have to be formulated taking into account the food availability, the concepts of a socially and culturally acceptable diet, stability in the access to food and health status. Such objectives must obviously be based on the situation of the country, so policy-makers must have a national information system and surveillance data at their disposal for formulating and monitoring the effects of the policy. Much of the necessary data is collected in most countries (1,4).

Dietary guidelines differ from dietary goals and from recommended dietary intakes (RDI) or recommended dietary allowances (RDA) (14). Recommended nutrient intakes (RNI) are also called recommended dietary allowances (RDA), recommended dietary intakes (RDI), dietary reference values (DRV) or population reference intakes. They are authoritative, quantitative estimates of human requirements for essential nutrients, usually set out with different amounts considered to be adequate to meet the known nutrient needs of practically all healthy persons (14).

Dietary goals are intended to emphasize the future-looking character of dietary guidelines. Dietary goals can be used for planning at the national level rather than as advice for individuals and are expressed in terms of national average intakes.

Dietary guidelines are sets of advisory statements that give dietary advice for the population to promote overall nutritional well-being and relate to all diet-related conditions. They have usually been expressed in technical nutritional terms and food components (eg. fat, salt, and fibre etc) that are important public health issues (15).

Adopting RNI and dietary goals for a population, they should be translated into "food-based dietary guidelines-FBDG" that specify foods and serving sizes (14, 15). FBDG are needed, because consumers focus on foods not nutrients, in choosing what to eat. They must provide individuals with guidance to prevent both nutrient deficiencies and chronic diseases. FBDG represent the practical way to reach the nutritional goals for a population. FBDG take into account the customary dietary pattern and indicate what aspects should be modified, consider the ecological setting, socioeconomic and cultural factors and the biological and physical environment in which the population live (14). Food guides are an example of FBDG.

Eight steps are suggested for developing FBDG:

1. Form a working group of representatives of agriculture, health, food and nutritional science, consumers, food industry, communications and anthropology.
2. Gather information on nutrition-related diseases, food availability, and food intake patterns in the country.
3. Identify, through full discussion, a set of major nutrition-related health problems for which dietary guidelines could be useful.
4. Evaluate the general food production and supply situation through consideration of current practices, subsidies and other governmental practices and problems, to see if FBDG can be implemented under the present situation.
5. Prepare a set of draft food-based guidelines, followed by background statements for each guideline and circulate them to all working group members.
6. Pilot test the wording of the guideline statements with consumer groups; revise and check
7. Finalise the background statements and send them to special-interest groups in the country (and possibly internationally) for comment, in view of the responses, and put together a draft of the final report.
8. Conclude the draft, adopt, publish and disseminate the final report and finally begin implementation (14).

Dietitians are the most appropriate health care professionals to prepare and use nutrient goals and food-based dietary guidelines, because of their extensive education and experience in nutrition, diet, food availability, food intake patterns in the country, health promotion, nutrition-related diseases and disease prevention and treatment. Most importantly, dietetics professionals have an opportunity, given their depth of nutrition knowledge, to work collaboratively with scientists and researchers, educators, the food industry and government (13,16).

Nutritional Surveillance

Before a nutrition policy can be worked out, it is important to know what people actually eat. Who is improperly nourished, in what ways, why and how this picture is changing are the basic critical questions asked by the nutrition policy maker (17).

No policy on the prevention of a disease can be developed without a realistic assessment of its prevalence and its impact on morbidity and mortality, and an estimate of the possible outcome of implementing defined preventive measures.

Nutritional surveillance is the continuous monitoring of the nutritional status of selected population groups. Surveillance studies identify the possible causes of malnutrition and hence can be used to formulate and initiate intervention measures at the population or subpopulation level. Additional objectives of nutrition surveillance include the promotion of decisions of governments concerning priorities and the disposal of resources, the formulation of predictions on the basis of current trends, and the evaluation of the effectiveness of nutrition programmes (18).

An assessment of the existing nutritional situation is made through nutritional surveillance of dietary patterns and trends in the population and health impact of the diet, epidemiologically assessed.

Dietary patterns can be monitored and food consumption data may be collected through national food supply (eg. food balance sheets), household (budget, consumption surveys) and individual level (eg. food records, 24-hour dietary recalls, food frequency questionnaires, diet histories etc.). Food supply data at the national level provide gross estimates of the national availability of foods. Food supply data are not useful for evaluating individual adherence to dietary reference values (DRV) nor for identifying subgroups of the population at risk of inadequate nutrient intakes. Household data also do not provide information on the distribution of foods among individual members of the household (14).

Health impact data can usually be obtained through mortality and morbidity registers or other reporting systems. It is usually possible to get mortality and morbidity data on nutrition-related diseases (7).

The dietitian, with commitment to excellence in the nutritional care of individuals and groups, shares responsibility with associated professionals in meeting the health needs of the public. The dietitian is a translator of the science of nutrition into the skill of furnishing optimal nourishment. Assessing the nutritional status is one of the responsibilities of the dietitian (9,11,19).

Implementation Activities

Implementation activities of nutrition policy are distinguished in three measures as; those deal with the

availability of foods, those that concern knowledge about foods and nutrition and those that consider the quality of foods (7).

Availability of Foods

The consumers, regardless of their knowledge about food and nutrition are rather dependent on the selection of foods that are made available to them. All the actions like; agriculture policies, food industry-food processing and manufacturing, mass catering, food prices-taxes-subsidies, food trade decide what foods shall be available to the consumer. What is available is usually what will be eaten (7).

Dietitians goal is healthy people, eating healthy food. Therefore, formulating objectives is only the beginning, the framework on which dietitians can start action with the analysis of measures influencing the availability of foods to the consumer.

Agriculture policies may to a large degree determine the composition of a national food supply. Health has to be seen relevant criterium to bring into discussions of agriculture planning. Agriculturalists could alter the production in the line with nutrition policy objectives. Health consciousness of consumers has to be increased.

Food processing and manufacturing contributes to the economic advancement of a country. It can be a key partner with government and health professionals in improving nutritional status, changing dietary patterns and achieving dietary goals and policies (15).

The food industry contributes to economic development by increasing the productivity of agricultural crops, decreasing losses and wastage, increasing food availability, reducing seasonality, making high-nutritive value foods available, and providing employment and higher incomes. Marketing strategies may help to achieve nutritional goals, because they include providing nutrition information on labels.

Given the right support, the food industry is a major force in changing the composition of the food supply, as illustrated by its response to the goal of reducing fat consumption, increasing fibre intake. The food industry has the ability to add essential nutrients to food products that are commonly consumed. Currently, a great deal of interest is being expressed in functional foods. These are foods that have been modified to have biological and physiological effects that exceed those related to nutrition, in terms of providing energy and essential nutrients.

Countries that fail to emphasize the training of food scientists, nutritionists and dietitians and do not harness the capabilities of the multinational food industry will continue to struggle in vain to achieve health goals for their populations (15).

Mass catering has been variously defined as techniques of bulk preparation and cooking of food, performed without prior consideration of the consumer and all organized eating out of home (20). Mass catering is a large and growing part of eating culture in modern society. With changing family structures and family economies, people take a larger share of their meals outside the home. Catering establishments belong to either the public or the private catering sectors. Both private and public mass catering establishments can contribute to improved nutrition.

Mass catering is a tool for reaching nutritional objectives of the nutrition policies. It is clear that mass catering is a multidisciplinary field. It requires knowledge of good food preparation practices, a measure of psychology and human understanding (20).

Food prices are a result of a variety of factors, and they are often set partially by government interventions such as subsidies at production level. Subsidies on nutritionally desirable foods, taxes on foods deemed as undesirable have been tried. Those responsible for price setting should take health into consideration as a decisive factor when food prices are set. In this field there is a great need for collaboration between economists and dietitians, since the price elasticity varies between food commodities, and all new situations need to be analysed.

Food trade, import and export are all decisive for who will get what foods. In nutrition policy implementation this is a very important area.

In countries with a nutrition policy, all of the above action areas should logically be related to the objectives of that nutrition policy.

Knowledge About Foods and Nutrition

Training of professionals in food and nutrition science is a subject of great concern. As a planner, manager, strategist, researcher, analyst, visionary, diplomat, communicator, educator; qualified dietetics professionals are essential to the design, implementation, and evaluation of nutrition policy activities described above. They can serve in a variety of roles to help sponsor and direct programs, conduct research, and organize for the purpose of influencing public nutrition policy (21).

The basic competencies of dietetics education also support competency in nutrition education. These competencies include understanding the fundamentals of food and nutrition science; demonstrating knowledge of physiological, psychological, and environmental determinants of eating behavior; and understanding the environmental and social implications of the food system. Also strong skills in interpersonal relationships, communications, listening and interviewing is needed (21).

Nutrition education of the public

Nutrition education may be defined as any set of learning experiences designed to facilitate the voluntary adoption of eating and other nutrition-related conducive to health and well being (22). Nutrition education in the community is the application of the science of nutrition to the everyday lives of people. This means that education is related to the social, economic and cultural values of food in such a way that people are motivated to make food choices which will result in their optimal nutritional well-being. Behaviors are identified according to the needs, perceptions, motivations, and desires of the target audience; as well as from national nutrition and health goals and science-based research (21).

It is essential when planning a community nutrition education program to consider socio-economic and cultural conditions, communications networks, behavioral and motivational factors, sanitation, health, climate, population pressures, agricultural conditions, food availability and storage, and transportation facilities.

Nutrition education is an important segment of any total health education plan in the community. Nutrition education, especially for women, can significantly improve nutritional status. The promotion of breast feeding and correct weaning practices are two areas where nutrition education can have a considerable effect.

Opportunities for nutrition education exist in a variety of setting that reach consumers throughout the life cycle. They include one-on-one counselling, group counselling, self-help materials, computer based feedback and community-wide activities (22). In settings such as; school-based nutrition or health programs, health education programs for pregnant or breast-feeding women, worksite health promotion programs, community-level activities involving the media, industry-based promotion and education, and governmentor community sponsored feeding programs.

Nutrition labelling of foods will probably become increasingly important as more foods are processed and packed. Labelling serves both to identify the food and to convey messages about its nutrient composition. Nutrition labelling presupposes an educated consumer but may also in itself have an educational effect. Eventually nutrition labelling will probably be mandatory.

Quality of Foods

Food quality standards comprise standards set to regulate the composition of foods as well as the fortification, enrichment or restoration of nutrients in foods. Food quality standards are meant to improve the quality of the diet as a whole. Such standards could be one important contributor to a better nutrition in the population (1).

Nutrition labelling of foods, fortification of staple food products and nutrient supplements are three complementary approaches to enhancing the nutritional adequacy of at-risk groups of the population. Nutrition education concerning fortification and supplementation as they relate to an adequate diet is vital. Education may be offered at the point of purchase as a public health message or may be provided to individuals seeking information to benefit themselves (23).

Food fortification-one of the food-based strategies for preventing micronutrient malnutrition-is the addition of nutrients to commonly eaten foods to maintain or improve the quality of a diet. A fortification program is usually undertaken in response to dietary, biochemical or chemical evidence of nutrient need.

Food fortification is strictly a public health approach designed to increase the intake of a nutrient for a targeted population by increasing the quantity in the food supply. On the other hand the use of dietary supplements is an individual approach. It is largely self-directed, although there is medical guidance for specific nutrients for vulnerable groups such as pregnant and lactating women, infants and young children, elderly and those on low caloric intakes.

Fortification needs to be incorporated into permanent nutrition policy to protect it from temporary changes in political or economic situations. Effective food fortification programs require adequate technical, operational and financial support for production, marketing and mass education. A national micronutrient advisory body may be needed to devise a master plan of operation and to continually monitor progress in implementation (24).

Food fortification programmes require effective management and coordination of activities including epidemiological assessment, advocacy, communications, regulation and quality control and monitoring and evaluation (24).

The use of dietary supplements, primarily vitamins and minerals, is a phenomenon that has evolved during the last half century. This phenomenon reflects the advances in our knowledge of nutrition science, our capability of isolating and/or synthesizing vitamins and purifying mineral components, the growing recognition of the role of nutrients in health promotion and the prevention of some chronic diseases, and the growing trend for people to take responsibility for their own health.

For certain segments of the population identified at nutritional risk, supervised supplementation with specific nutrients, either through use of fortified foods targeted for that population or through dietary supplements is considered good public health policy. Such supplementation includes, for example, iron for infants and children over 6 months of age, iron for pregnant women, vitamin D for infants and elderly, folate for women of childbearing age, and calcium for adolescent girls and young women.

However, many people self-prescribe supplements for various reasons, including concern about the adequacy of their own diet or of the food supply, a desire to be more healthy, or to treat or prevent an illness. This escalating, largely unsupervised, use of dietary supplements, which is often based on limited and subjective rather than objective information, raises safety and economic concerns (23).

Nutrition education, one of the approaches to improving the nutrient intakes of the population, is one of dietitians mandates.

It is essential that government establish and enforce a national policy on food enrichment and fortification that will ensure safety and effectiveness in application for both domestic and imported food products and ingredients. Decisions regarding food enrichment and fortification require careful analysis of data on health status and food consumption. Consideration must also be given to the need for monitoring the effects of increased consumption on persons in target and nontarget populations. In addition, the nutritional status of the population must be monitored to determine whether particularly high intakes are being consumed by some subpopulations and whether there are possible health effects (23).

Dietitians must stress the importance of a consuming a well-based diet to ensure adequate nutrient intake. However, some individuals have a potential need to use dietary supplements. For individuals to make appropriate decisions regarding dietary supplements, dietitians should urge the government to establish regulations regarding health claims on dietary supplements and uniform labelling of such products. The policy must be based on significant scientific data to ensure the nutritional safety of individuals using dietary supplements.

Dietitians must take major responsibility for educating the public about food fortification and dietary supplement usage. To do that, there is need, particularly for continuing emphasis on public education about the proper interpretation and application of the recommended dietary allowances (RDA), education about nutrition evaluation of diets and dietary supplement usage, the appropriate use of food labelling information, and the nutritional impact of the use of dietary supplements and fortified foods (23).

Food safety is in itself an important contributor to the microbial and biochemical safety of foods and an important aspect of a food and nutrition policy. Food safety and nutrition policies should be together, but there are administrative difficulties to be solved in most countries.

As the health needs of the public become more clearly delineated, the health professions become more responsible for exploring different and better health services delivery systems (10). The dietitians work in a variety of settings and perform a multitude duties. They can assume roles in clinical, administrative, consultant, public health, food service, research and education settings. Today dietitians are taking their rightful places among their peers-on nutrition support teams, on the staffs of wellness centers, in home health agencies, in long-term care institutions, in private practice, in sports training centers, as well as in the hospitals. Dietitians are the main actors of food and nutrition policies.

Dietitians, who are knowledgeable and competent in nutrition can build an awareness of nutrition issues, give practical advice in many nutrition-related situations that will arise, and see to it that nutritional considerations are built into relevant policies and programs, can set nutrition policy process in motion and keep it moving in the periods when the political interest is flagging (7).

Most importantly, dietetics professionals have an opportunity, given their depth of nutrition knowledge, to work collaboratively with scientists and researchers, educators, the food industry and government to promote accurate and appropriate research, dissemination of information, product development, regulation and consumer education (16).

The needs are there, and the dietitians are the professionals who can meet them. Only we should know that changes in the educational system for a profession require thought, planning and evaluation. They are best accomplished through evolution rather than revolution (9-11).

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