3.10 Developing food-based dietary guidelines: Experiences from India

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India has witnessed unprecedented growth in food grain production and moved from chronic shortages to an era of surplus. Along with the steps to achieve adequate production, initiatives are being taken to distribute foodstuffs of the right quality and quantity to the right places and persons at the right time and at an affordable cost.

Achievement of food adequacy at the national level is a necessary, though not a sufficient precondition, to ensure the achievement of household nutrition security. Available data also indicate that overall, diets have adequate amounts of protein, calcium, thiamine, niacin and vitamin C, but are inadequate in vitamin A, riboflavin and iron.

There has been a substantial reduction in severe grades of malnutrition, including chronic energy deficiency, and some improvement in nutritional status of all segments of the population. However, it is a matter of concern that although mortality rates have come down by 50% and fertility by 40% during the last five decades, the reduction in under-nutrition is only 20%. While there has been a decline in the prevalence of stunting and wasting, even now one third of all children weigh less than 2.5 kg at birth, half of the preschool children suffer from mild and moderate malnutrition and more than two thirds of women and children are anaemic. Vitamin A deficiency and iodine deficiency disorders still remain public health problems.

Diet-related chronic diseases do not affect only the elite population but are becoming a problem even among middle and lower income groups. The incidence of cardiovascular diseases and diabetes among the low-income group has also increased significantly.

With increasing longevity, the proportion of elderly is increasing rapidly. Available data from nutrition surveys indicate that the dual problem of chronic energy and micronutrient deficiency on the one hand, and obesity on the other, are seen among the elderly. Osteoporosis and its related consequences also impact the lives of older persons. The situation is being further compounded by the emergence of a rapidly increasing number of HIV/AIDS cases, with their related health, nutritional and social implications. In India, an estimated 3.97 million people are living with HIV/AIDS.

During the present Tenth Plan period, there are focused and comprehensive interventions aimed at improving the nutritional and health status of individuals. There has been a paradigm shift from household food security and freedom from hunger to nutrition security for the family and the individual; from untargeted food supplementation to screening of all the persons from vulnerable groups, identification

of those with various grades of under-nutrition and their appropriate management; from lack of focused interventions on the prevention of over-nutrition to the promotion of appropriate lifestyles and dietary intakes for the prevention and management of over-nutrition and obesity.

In India, the focus of nutrition programmes has undergone several priority shifts in food production, demonstration, consumption and community development efforts. The next shift was to include supplementary nutrition programmes and prophylaxis programmes against specific micronutrient deficiencies, such as iron deficiency anaemia, iodine deficiency disorders and vitamin A deficiency, as early as 1960s-1970s.

The next major shift was directed towards a multisectoral approach. The Integrated Child Development Services Scheme (ICDS) was launched in 1975 marking the beginning of a multisectoral phase. ICDS promotes child survival and development through an integrated approach for converging basic services for improved child care, early stimulation and learning, improved enrolment and retention, health and nutrition, and water and environmental sanitation. It is designed to bring about nutritional benefits for expectant and nursing mothers, women in the reproductive age group and children below the age of 6 years. It is one of the largest outreach programmes and extends to over 5.2 million mothers and 30 million children under 6 years of age belonging to low income groups.

Other supplementary feeding programmes are being implemented by the government along with initiatives to improve the nutritional status of children, which include setting up a targeted public distribution system for provision of essential food items to the underprivileged; improving household food security through food subsidies, food for work and economic uplifting; and nutrition education efforts to increase awareness and bring about desired changes in dietary practices, including promotion of breastfeeding, infant feeding and dietary diversification.

With the paradigm shift in policy from freedom from hunger to nutrition security for the family and the individual, the focus on increasing nutrition and health awareness gained momentum. Keeping these factors in mind, in 1998 the Department of Women and Child Development, Ministry of Human Resource Development, in collaboration with the Nutrition Syndicate, developed the Food Based Dietary Guidelines for Indians, a simple illustrated book on guidelines for healthy eating. The book focuses on the types of foods which should/should not be consumed by various ages. In the same year, the National Institute of Nutrition also brought out a set of two documents entitled Dietary guidelines for Indians, one of a quantitative nature for policy makers and health professionals, while the second is a more qualitative version for the general public. These publications are nominally priced and available to the general public. Both documents have been developed by groups of experts with representatives from the government and the fields of health, nutrition, community medicine, among others.

In 2004, the Department of Women and Child Development, Ministry of Human Resource Development, released the national guidelines for infant and young child feeding, which focus on initiation of breastfeeding immediately after birth, exclusive breastfeeding for the first 6 months, appropriate and adequate complementary feeding and continuation of breastfeeding up to 2 years and beyond.

In conclusion, the formulation of FBDG is an ongoing process which needs periodic review and revision based on the feedback obtained on its usage. Monitoring and evaluation systems need to be put into place to study the impact of the FBDG on food consumption patterns. In a vast country like India, translation of these FBDG into local languages will help greater penetration. The campaign can further be strengthened by supporting these documents with educational material such as posters, handouts, CDs, among others. The media, particularly television, radio and the internet, should be employed for widespread coverage of these messages. The private sector can be involved as a partner, as part of its corporate social responsibility initiatives.

It has to be realized that nutritional health in all age groups represents a national economic asset. Malnutrition-free India is the goal and the vision of the national nutrition policy in the next decade. India's strong institutional and human resource base is capable of bringing about such a transformation.

Points raised in the discussion

- Duplication of efforts should be avoided in the development of FBDG.
- There is a need for one single multisectoral body that acts as the steering committee for the development of FBDG.
- Water intake could be included in FBDG.
- Many countries in economic transition face problems of under and over-nutrition. Therefore, both should be addressed when developing FBDG.
- It is important to involve the academia in the process.
- It is necessary to consider the purchasing power of the population when recommendations are made.
- India's FBDG do not stipulate the number of servings to be consumed from each food group.

3.11 Linking food-based dietary guidelines and nutrition education

Mrs Ellen Muehlhoff, FAO Headquarters

Having a set of dietary guidelines is not enough to ensure that the population will follow the advice given or contribute to an effective nutrition policy. In order to achieve the desirable goal of improved nutrition, dietary guidelines need to be communicated to the public through appropriate nutrition education and promotion programmes. Supportive environments and policies also need to be in place to enable people to adopt and sustain healthy dietary behaviours.

Before planning educational programmes, it is important to understand that eating behaviour is complex. Food and eating patterns are influenced by a wide range of factors that operate at the individual and the societal level. Important determining factors include level of education, knowledge and understanding about nutrition, personal food preferences, learning history, cooking skills, income, and food prices. Influences at the societal level are beliefs about food, religion and culture. Economic development and urbanisation may alter dietary habits and lifestyle patterns at the same time as new food products become available. The demand for traditional food may become less. Marketing and advertising of food products through television, and radio, often targeted at children, also have an important impact on consumption. Food, agriculture, trade and fiscal policies influence a nation's food supply, food availability and food access.

Dietary guidelines are based on scientific research and need to be "translated" into a food-based format for consumers. Consumer friendly dietary guidelines should possess the following characteristics:

- short: not more than 6 to 8 messages;
- simple and clear: formulated in a way that people from different cultural backgrounds and literacy levels understand;
- user-friendly and not confusing;
- worded in a positive way and motivate consumers to make changes;
- emphasize improvement, not perfection.

There are also important issues regarding content. The guidelines should be practical; and the recommended foods or food groups should be widely available, affordable and accessible to most people. The guidelines should also be comprehensible. The general public should be able to understand the advice given and be able to translate

recommendations into their daily dietary and life patterns. In addition, the guidelines should be culturally acceptable and compatible with national food habits. To ensure that the guidelines are acceptable, testing of the guidelines with the users is critical to their success.

Complementary educational tools, such as a food guide, need to be developed to help consumers apply the dietary guidance in their daily eating patterns and life habits. Food guides are graphic representations, often in the form of a food wheel, plate or pyramid, or other culturally appropriate shapes. They use pictures and diagrams that are visually striking to help people recall the foods they should include in their daily diet, and their proportions or quantities.

The food guide pyramid from the United States of America is an example of a structure that groups foods according to similarity among nutrients. The pyramid illustrates the relative proportions of different foods to be eaten by using the concept of serving size. Serving size can refer to the amount of food that is typically eaten, or to a standardized unit of food (e.g. half a cup, 100 grams). Even in countries where serving size may not be a relevant concept, some thought needs to be given to showing the relative proportion of foods from each group that contribute to the total diet. The American food guide pyramid was designed to teach people the concepts of variety, proportionality and moderation.

It is important to note that food guides cannot stand on their own. Materials and explanatory text need to be developed, focusing on the nutritional requirements of different population groups, such as infants, children from 6 months to 2 years, 2 to 5 years, schoolchildren, teenagers, adult men and women, and the elderly. Specific guidance is also needed for groups with special physiological needs, such as pregnant and lactating women, and others; e.g., low-literacy people, and ethnic groups.

Putting the messages into action requires further steps; namely, campaigns to raise nutritional awareness and educational programmes. An evaluation of nutrition programmes found that the more successful nutrition education programmes are those that set behaviour change as a goal, provide simple practical advice and motivation, develop personal skills, encourage individual and community participation, reach all people at various stages of the life cycle and operate in different settings, use a multimedia approach, and are backed up by supportive environments and policies to make healthy choices more accessible.

Action is required by different sectors, including agriculture, education and health as well as consumer organizations, and the food industry and retail companies. Broad areas of action where governments can support access to a range of healthy and safe foods could include food, agriculture and trade policies that promote production and access to a wide variety

of foods at affordable prices; food safety and quality; consumer-friendly nutrition labelling; nutrition standards for schools and nurseries; nutrition education in school curricula; teacher training; and responsible marketing that limits advertising of low nutritious foods to children.

Countries still struggling to feed many of their people are now also facing the costs of treating obesity and chronic diseases. As developing nations move forward, they need to educate their people about eating the right foods, not just more or less food, to avoid what could be a crushing economic and social burden in the next 15 to 20 years. To tackle the double burden of disease effectively, nutrition information and education are essential elements in a comprehensive strategy aimed at nutritional well-being for all.

Points raised in the discussion

- One of the problems encountered with the USA Food Pyramid was that people understood that the best foods were on the top, while this small top section presented foods that should be consumed in limited amounts.
- It was seen as a proof of success when the pyramid appeared on the packaging of food items.
- 50% of the population in the US knows the food pyramid.
- FBDG should be simple and short.
- Communication experts are key players in the development of FBDG; they are needed to develop clear and simple messages.
- Supermarkets could be good partners in disseminating information on healthy food choices in their brochures.
- Consumers can influence the food industry by demanding healthy food products.
- For consumers to eat healthily, nutrition information and education need to be complemented by an enabling environment.
- Communication needs to be targeted to specific groups in order to motivate consumers to make good food choices.
- FBDG are an essential component of a comprehensive nutrition education and communication strategy.

3.12 Developing multisectoral nutrition communication plans: regional experiences

Ms Lilas A. Tomeh, WHO Regional Office for the Eastern Mediterranean

Health communication is defined as the study and use of methods to inform and influence individual and community decisions that enhance health. It is a hybrid discipline that draws primarily from communication, behavioural science, health education and health promotion, political science and information technology. It encompasses everything from patient-health provider interactions to mass communication campaigns. Translating health information effectively at both the individual and societal level is essential for reducing mortality and morbidity as well as improving the quality of life.

The prevention and control of infectious diseases have always involved the need to communicate information to those at risk. For chronic diseases and injury, many of which can be prevented through individual behaviour change or through policy change, communication becomes equally, if not more, important. FBDG are a powerful health communication tool. There is a need for health-care professionals and providers to acquire the knowledge and skills needed to plan and execute effective communication plans. The communication environment in the 21st century has been described as cluttered. Thousands of messages are sent every day encouraging people to buy certain products. In order to compete in this increasingly competitive and complex environment, public health professionals must make communication an integral part of their everyday activities, as with science and epidemiology.

The growing interest in health and the ongoing improvement in information technology provide unprecedented communication opportunities for public health professionals. Knowledge and implementation of health communication principles can greatly enhance the practice of public health. The health communication framework can be outlined as assessing the science, defining the purpose of communication, identifying the audience, understanding their characteristics, developing message concepts, choosing media and channels, implementing, and evaluating the process and its impact.

With the collaboration and support of the Center for Disease Control and Prevention (Atlanta), the Regional Office was able to develop, plan and carry out several training workshops, both on regional and national levels, to improve health communication skills of public health professionals. The training focused on four main aspects: understanding

non-scientific audiences and how to communicate information to them through various means; advocacy; social marketing and mobilization; monitoring and evaluation.

Learning and improving the skills for health communication strategies was the main goal, which needed to be applied to an important and practical public health problem. As one of the regional strategies of the Regional Office is to alleviate micronutrient deficiencies, it was decided to use health communication as one of the primary tools to help address this problem. It will probably take some time before the impact of such interventions can be measured, especially in this Region, where countries are at different nutritional stages and have different needs.

FBDG are a potent communication tool. However, it is not enough to promote behavioural change, unless people are taught how to achieve and maintain it. FBDG should not only list or point out the optimal dietary behaviour but should also give the practical solutions needed to change the behaviour.