

4.3 Islamic Republic of Iran

Dr Nasser Kalantari, National Food Industry and Nutrition Institute

The first attempt of Iranian nutritionists to develop and express dietary guidelines and food groups was in the first Iranian Congress of Nutrition (1990). In this congress the nutritionists came up with the following dietary recommendations:

- Select foods on the basis of balance and variety.
- Include fruit, vegetables, milk, yogurt, and fat-free cheese in your daily food plan.
- Avoid intakes of fried foods and foods with higher fat content especially hydrogenated fats.
- Consume poultry and fish more than beef and lamb.
- Breastfeed your infants, and introduce appropriate weaning food after 4-6 months of age.
- Avoid consuming too much sugar.
- Avoid consuming too many salty foods. Use iodized salt instead of common salt.
- After 30 years of age be aware of your weight, and avoid overweight and obesity.

In 1996, at the fourth Iranian Congress on Nutrition, the food groups and the dietary recommendations of 1990 were discussed in a consultative workshop on food groups and dietary guidelines. Seven food groups were recommended instead of the original four. Fruit and vegetables were separated, and fat and sugar were divided into two separate groups. Regular physical activity, at least three times a week for 30 to 40 minutes, was added as a recommendation. In these new dietary recommendations, the emphasis was on consuming more fibre.

The most recent attempt at defining FBDG took place in 2003. The Ministry of Health and Medical Education, Ministry of Education, the Iranian Nutrition Society and experts from the National Nutrition and Food Technology Research Institute began to prepare the first draft of the food groups based on provincial food consumption data of 1990-1994.

Points raised in the discussion

- Correlation studies on nutrient intake and disease patterns are not required before developing FBDG, as relations are well proved by international scientific studies.
- Dissemination of FBDG through mass media and school curricula is imperative.
- FBDG are useless unless they are communicated to the public.
- The media should be involved at an early stage as an essential partner in disseminating FBDG.

4.4 Jordan

Dr Khader El Masri, University of Jordan

Jordan is a young community, with two thirds of the population below 25 years of age, and a median population age of 20 years. Population growth rate is 3%. Household sizes are large (average six persons) and the urban population comprises 79%. Self-sufficiency in food supply is low in general, especially for staple foods. The family food basket is comprised of mostly imported foods, which are expensive, especially for households around and under the poverty line.

A low and insecure national food security status prevails in Jordan because of disadvantageous ratios of self-sufficiency, negative trade balance, gaps in staple food supplies, high price index and poverty rate.

Higher mean food values were consumed in the urban region, where households depend on cash market food supply. In rural regions, households depend more on the agricultural food supply system. In general, households in Jordan consume more plant foods such as cereals, legumes and vegetables, than foods of animal origin. This is due to elevated food prices, and high prevalence of poverty combined with a slow increase in incomes. Increases in the consumption of oils and animal fats, sugar and salt have been witnessed.

A national study in 1993 registered that 2% of children (0-5 years of age) were acutely malnourished (wasted), 16% suffered from chronic malnutrition (stunting) and less than 1% from marasmus and pre-washiorkor. A statistically significant higher incidence of malnutrition problems was observed among children of non-educated mothers with low socioeconomic levels and minimum paediatric care. A national study in 1997 registered 1% of children (0-5 years of age) as wasted and

17% as stunted (< -2 z-scores of ht/age and wt/ht). The prevalence of low birth weight was 10% among infants in 1998-2002. On the other hand, obesity rates were high, with 64.2% of women registered as obese or overweight (BMI ≥ 25.0). Anaemia is a major public health problem which affects about 32% of Jordanian women of reproductive age. Iron deficiency affects 41% and iron deficiency anaemia (IDA) 23% of all women. In children (0-5 years of age), the respective prevalence rates are 20% for anaemia, 26% for iron deficiency and 10% for iron deficiency anaemia.

Points raised in the discussion

- Countries in the Region are heterogeneous.
- One FBDG will not be sufficient for the whole Region.
- Each country may need to develop its own FBDG.

4.5 Kuwait

Ms Suad Al-Hooti, Kuwait Institute for Scientific Research

Nutrition related chronic diseases, such as cardiovascular disease, high blood pressure, cancer, diabetes and obesity are becoming serious public health problems in Kuwait. Anaemia prevails among preschool children (< 5 years of age) at 20.9%, and among children 6-10 years; while for the adult population of > 20 years of age, it increases to 27.9% among females but is only 3.9% among males. The incidence of insulin-dependent diabetes mellitus among Kuwaiti children (age 0-14) has increased from 3.96 per 100 000 during 1980-1981 to 15.4 per 100 000 during 1992-1993. Obesity is one of the predisposing factors for chronic disease, which is clearly reflected in the increase of the incidence of morbidity and mortality of cardiovascular disease and diabetes in Kuwait and the consequent continuous increase in medical care costs. There is no government plan of action that is geared towards their prevention.

In order to facilitate proper planning of preventive programmes a national survey to assess the nutritional status of the Kuwaiti population is required. This should provide cross-sectional baseline and reference information for future monitoring of the changes in dietary intake, dietary habits, and risk factors. The survey should analyse the correlation between lifestyle characteristics and the prevalence of diseases.

To date there is no clear policy, action plan, or guidelines to address the continuous increase of health problems. The food and nutrition sector in Kuwait is facing a number of limitations, including unavailability

of a higher governing body to coordinate the functions of the various sectors; lack of policies, strategies, guidelines and action plans; absence of formal university level training (which limits the available expertise); limited nutrition communication and mass media awareness programme; lack of a database and information system to accumulate baseline information needed for setting guidelines and policies.

4.6 Lebanon

Professor Nahla Houalla, American University of Beirut

The last nationwide survey was conducted in 1997 and only included nutritional anthropometric measurements for obesity. Since then, studies have been restricted to selected population groups (i.e. of low socioeconomic status) or geographic regions (i.e. Beirut). Therefore, it is important to emphasize that some of the available data do not represent the nutritional and health situation of the entire Lebanese population.

Nonetheless, recent dietary surveys were conducted in 2001 in Beirut by means of a quantitative food frequency questionnaire (QFFQ), and in 2004 on adults attending health centres across all six governorates in Lebanon by means of a 24-hour dietary recall. The total mean consumption of food per person was estimated to be 3030 g/day providing 2523 Kcal/day. Fat contributed 38.9% to the average daily energy intake, protein 13.4% and carbohydrates 47.2%. Cereals provided 35% of daily energy intake and bread was the most highly consumed item in this food group. Meat and poultry products provided 8.8% of daily energy intake, with consumption of butchery products especially beef being the highest, followed by poultry. A low consumption of fruit and vegetables was noted, and 73.6% of the subjects consumed less than the recommended two servings of fish per week. Dairy products provided 10.9% of daily energy intake and milk was the least consumed dairy product.

Prevalence of wasting and stunting observed over the years has decreased by 50% and by 25%, respectively. Iron deficiency anaemia (IDA) remains a public health problem. Measured as haemoglobin (Hb) level <12 g/dl, anaemia was prevalent in 16.6% of the total sample of women. Of the total sample, 27.5% were iron deficient (defined as ferritin < 15°g/l) of which 7.9% had IDA. Folate and vitamin B12 deficiencies in the studied sample of reproductive age women were 24.8% and 39%, respectively. The prevalence of overweight and obesity data shows that 53.0% are overweight and 17.0% are obese; 22.8% of children (age 6-11 years) and 20.8% of adolescents (12-19 years) were overweight, and 7.7% and 5.5% were obese.

There is an urgent need for a nationwide dietary survey that will be representative of the dietary intake of the Lebanese population. The

survey should cover noncommunicable disease risk factors, prevalence of physical activity, iron deficiency anaemia, and vitamin and mineral deficiencies among the elderly. Based on available data, albeit incomplete, a process to establish FBDG should be started. In Lebanon, human resources to implement a sound food and nutrition agenda are available in media, schools and universities but leadership is needed to outline the agenda and push it forward.

4.7 Pakistan

Professor Perveen Liaqat, Allama Iqbal Open University

Pakistan is self-sufficient in food production as far as major crops are concerned (i.e. wheat, rice, sugar-cane and maize). However, a slight fluctuation has been observed in crop production, which is mainly due to disasters. The immediate needs of additional food are met through imports. Beside crop production, Pakistan has livestock production, which accounts for 49.1% of the economic value of the agricultural sector, and about 11.4% of the GDP. On average, daily intake of wheat is 322 grams by mothers and 165 grams by children at national level. Consumption of wheat flour is about 14% higher among rural mothers (338 g/day) as compared to mothers in urban areas (297 g/day). Rice is the next commonly consumed cereal, which adds up to 6% of national average cereal consumption. Consumption of rice is higher in urban (22.5 g/day) than in rural areas (18.3 g/day). Wheat is still the major commodity consumed by children in both rural (174 g/person per day) and urban areas (156 g). Most of the protein needs are met from milk and milk products in both urban and rural areas, (national nutrition survey 2001-02).

The major nutritional problems in Pakistan include low birth rate (22.1%) due to poor maternal nutrition, while almost the entire population is at risk of either under-nutrition or over-nutrition. A prevalence of stunting (40%), wasting (14%), and underweight (37.4%) among children under 5 has been observed in the national nutrition survey 2001-2002. Around 12.5% pregnant and 16.1% lactating mothers have been found to be undernourished (BMI <18.5). Biochemical results report that 23.7% mothers had moderate and 1.8% had severe iron deficiency anaemia. This was 33.0% and 2.6% respectively in children. Vitamin A deficiency is prevalent both in children and their mothers, 1.2% and 7.8% respectively. Visible goitre is present in 12.2 % of mothers, palpable goitre in 8.9%, and 41% of others are zinc deficient. Overweight and obesity are problems manifested in urban areas. One out of seven older adults is either overweight or obese, 12.6% of the population was found to have elevated cholesterol levels, 21.5% of urban population was reported to have high blood pressure. Diabetes was more prevalent in urban females (18%) than in males (15%).

Malnutrition is directly and indirectly responsible for 30% of all infant and child deaths in Pakistan. Over the past 20 years, there has been no significant change in the prevalence of malnutrition among the targeted population despite the launch of many nutrition intervention programmes. Currently, nine different nutrition programs at national level are being pursued by ministries and divisions, without clear rules and responsibilities across federal, provincial public and private stakeholders, or any sharing of vital information. There is no strategic national nutrition plan or framework.

There has been growth in food availability, and increases in calorie intake per capita and in budget allocation for food. A recent district level study indicates that 62% of districts are food deficient in terms of food availability. Food insecurity in rural Pakistan is 80%, ranging from minor to extreme insecurity levels. Disparity in access to food is also caused by income inequality.

Several development policy measurements can influence poverty and malnutrition. The ability of households to obtain food can be influenced by a host of policies aimed at providing the poor with access to food, such as distribution of food at subsidized rates, control of market prices, and availability of food. Similarly, nutrition education can influence the nutritional status without working through the income-food nutrition nexus.

Points raised in the discussion

- Countries use different cut off points for determining obesity, which prevents inter-country comparison and inclusion in the WHO database.
- Standardization of cut off points is needed.
- For childhood obesity, the international standard cut off point will be determined in 2005.