## 4. COUNTRY PRESENTATIONS

## 4.1 Bahrain

Ms Nadia Ghareeb, Ministry of Health

Bahrain has experienced a rapid change and development in socioeconomic status, food consumption patterns, lifestyle and health status during the past three decades, due mainly to the oil boom and the sharp increase in income. These changes have had a great impact on the nutritional and health situation of Bahrain, with the development of a paradoxical nutrition status, as both under and over-nutrition exists. Under-nutrition is manifest as growth retardation among pre-school children and anaemia in young children, adolescent girls and pregnant women, while over-nutrition is manifested as overweight, obesity and diet-related noncommunicable diseases.

The improved standards of living and health services have led to an improvement in life expectancy, which increased from 50-59 years in the 1950s to more than 70 years in the 1990s. On the other hand, this situation has contributed to the occurrence of several chronic diseases, especially cardiovascular disease, diabetes mellitus, hypertension and cancer. In addition, sedentary lifestyles and the shift from a traditional to a more westernized diet have played an important role in changing the trends in diseases and the nutrition status of the population.

Considering the importance of dietary practices in nutrition-related diseases, it is essential that food-based dietary guidelines (FBDG) be developed for the Bahraini population, especially since consumers focus on foods not nutrients, in choosing what to eat. It is essential that individuals be provided with the necessary guidelines to assist in preventing nutrient deficiencies and chronic diseases.

Various nutritional survey studies were conducted by the Nutrition Section under the Ministry of Health in Bahrain during the last two decades. Results showed that nutrient intakes among pregnant women were below the recommended dietary allowances (RDA), mainly in energy, vitamin A, folic acid, iron and calcium. Anaemia prevalence, low haemoglobin as an indicator, showed an increase in levels from 33.5% (1996) to 41.9% (2002).

Data from a recent national survey on Bahraini adults (19 years and over) showed that obesity prevalence among males was 23.3% and females 34.2%. Overall, the data indicate that anemia and obesity problems, among various stages of life and age groups, are considered to be the most alarming health problems caused by or related to diet and nutrition.

A comprehensive national survey was conducted between 1999 and 2000 on schoolchildren in Bahrain (6-19 years). Overweight/obesity, iron deficiency anaemia (IDA), folic acid deficiency and hyperlipidaemia were found to be more common among girls (26%, 33%, 24.6%, 22.3%) compared to boys (21%, 14.7%, 17%, 13.2%), respectively; while systolic and diastolic hypertension were found to be relatively high among the boys (16.4%, 12.3%).

Reported deaths due to noncommunicable diseases in 2003, including heart disease, neoplasms and endocrine, nutritional and metabolic diseases, were found to be relatively high, percentage-wise, in comparison to other causes. It is also noted that the percentages of these diseases as direct cause of death were higher among women than among men (31%, 14%, 10% versus 25%, 14%, 7%), respectively.

Data from the national nutrition survey of Bahraini adults showed that the consumption of certain foods with high fat and sugar content were very much on the higher side. Meat and full fat milk consumption were also relatively high compared to that of legumes, nuts and low fat milk products.

Furthermore, the results of a survey of schoolchildren showed that soda drinks, sweets, snacks, meats, bread and cereals (rice) consumption were high compared to the consumption of legumes, vegetables, fruits and fruit juices, milk and dairy products among both girls and boys.

In general, it is observed that nutrient intake was equal to, or higher than, the standard among the population, especially for certain nutrients such as protein, sodium, and vitamin C. However, the intake of some micronutrients such as potassium, calcium, magnesium was below the standard among both genders. Iron and folate intakes among females of a certain age group (adolescents and adults) were also lower than the standard. Energy produced from proteins, carbohydrates and fat sources was found to be at normal levels.

Data on physical activities among Bahraini adults were collected during the National Nutrition Survey in 2002. Although the majority reported practising moderate activities (73.5% females and 67.1% males), observations showed that these reported figures are relatively high, although more and more people are practising moderate forms of physical activity such as walking.

Data obtained from the National School Survey for schoolchildren (age 6 to 19 years) between 1999 and 2002, revealed that 80% of the girls and 50% of the boys were frequently involved in some form of physical activities; 26.6% of the boys and only 6.4% of the girls reported exercising on a daily basis.

Bahrain is an oil producing country whose economy depends on oil and trade. In terms of agricultural activities, Bahrain has very limited agricultural production, which amounts to less than 3% of the food requirement. Approximately 97% of the food is imported. Local food production is limited to certain items, such as fish, chicken, eggs, and some other minor items, while Foods such as cereals, meat, fruit, oil, and fat are imported.

The government policy is to subsidize main food items such as sugar, rice, wheat and meat. However, subsidizing some other important items, such as fruit and vegetables is preferable and would encourage consumption of healthier food.

Intervention programmes adopted by the Ministry of Health comprise clinics and nutrition education campaigns targeting obesity; in mother and child health, education and training of health professionals and mothers, implementation of regulations on breastfeeding and infant Hb screening; flour fortification (iron) for micronutrients; for schools, school canteen food regulations and lifestyle education campaigns focusing on diet and physical activity; the development of food-based dietary guidelines for Bahrain in 2003.

## 4.2 Egypt

## Professor Nafissa M. Eid. National Nutrition Institute

Since the 1960s, three food groups (energy, tissue building and protective foods) have been identified and visualized as three pyramids. In 1995, FBDG were prepared by the Nutrition Institute based on malnutrition problems (protein and energy malnutrition in children, micronutrient deficiency among different population segments), food consumption patterns, RDA, and population nutrition goals (WHO, 1990), as well as economic and cultural factors. FBDG target all family members and are a guide for educators. They were designed to include: guides for healthy, balanced and safe food for the family; the importance of eating a variety of foods (three food groups); scientific basis and consideration for planning meals for various age groups; along with models for whole-day balanced meals (low, moderate and high cost) for different family members, male and female (adult, adolescents, and elderly), pregnant and lactating mothers and children. Moreover, they include information on: ideal body weight and BMI, growth curve, the importance of breastfeeding, RDAs, household food measurements and portion sizes, a food exchange list for energy and protein, information on nutrient rich foods (iron, calcium, vitamins A and C), cholesterol and saturated fatty acids in foods, as well as the nutrient value of some common Egyptian foods.

FBDG promotion focused on food groups, food diversification, daily meal models for different economic groups; and advice on iron intake and hygiene. UNICEF gave support for 52 000 copies issued in 1995, 1996 and 2000, and distributed mainly to mother and child health, primary health care (Ministry of Health and Population), other ministries (education, social affairs, agriculture, and supply) and nongovernmental organizations.

Based on recent national surveys, the current food and nutrition status indicates a double burden: under-nutrition (underweight, wasting and stunting among children, micronutrient deficiency of iodine, iron, vitamin A and calcium), as well as overweight and obesity (53.2% and 75% among adult males and females, respectively); osteoporosis (14.9% and 12.6% among adult males and females, respectively); hypertension (national figure among adults is 26% with 60% of detected cases unaware of hypertension, and among the elderly, 57-71 years, 55% and 71% for males and females, respectively); and diabetes mellitus (prevalence 9.3% and up to 20% in higher socioeconomic classes in urban areas).

Dietary intake data per capita per day: energy, 2519 Kcal, protein 89.2 g, fat 71g; energy pattern: 61% cholesterol, 25% fat, 14% protein. Dietary adequacy: more than half the households consumed more than 100% of the RDA energy; excess energy intake among mothers was 65%, coupled with inadequate energy intake among 26% of children. Inadequate dietary iron, vitamin A, and calcium intakes were found among 60%, 50%, and 30% of households, respectively. Smoking is high among adult males (48%), females (10%), and adolescents (5.5%).

Current nutrition intervention programmes are supplementation (vitamin A capsules, children and postpartum mothers; iron/folic acid tablets, during pregnancy, and secondary school girls in Upper Egypt), food fortification (national iodized salt, and iron-fortified school biscuits).

The development and implementation of FBDG should be reviewed on a periodic basis, based on experiences of agencies that use the document. There is a need to seek support for proper implementation and monitoring of FBDG, and to develop, update and disseminate food composition data. More emphasis should be placed on milk and dairy products among the three food groups, to address osteoporosis and low dietary calcium intake. There should be integration of messages on other policies related to health (smoking, physical activity).