

## 2<sup>nd</sup> National Public Health Symposium Food and Nutrition for a Healthy Planet

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### الندوة الوطنية الثانية للصحة العامة الغذاء و التغذية من أجل كوكب صحي

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#### Keynote: *Food policy for a healthy planet*

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The title of this presentation might be the cause of consternation. Isn't the health of people more important than the health of the planet? The Roman philosopher Cicero stated that people's health is the highest law. The philosopher John Locke agreed—Cicero's statement, he said, should be the fundamental rule for government. Many of us in public health would agree, but we have a problem. We *homo sapiens* are not alone on the planet. If our needs always come first, what priority do we accord other species? Are they simply food or an entertainment source? In 1788, the economist and demographer Thomas Malthus, at a time when the world's population stood at one billion, argued that food availability places limits on human expansion. Today's population of seven billion places a greater demand on resources than ever before. The world's population eats more meat than in previous years and, in order to boost production, the variety of crops grown has been reduced. In Malthus' day, food production was sustainable; today, it is not, as fossil energy is used to grow and transport our food. A modern Malthus might tell us that we have pushed the capacity of the planet to its limits. Indeed, our rate of urbanisation or conversion of land from wilderness to a farming or habitation landscape means that there is little wilderness left. Consequently, biodiversity is in rapid decline, our energy requirements are changing the climate and agriculture is threatened by soil erosion and water stress. Our social relations are also suffering; a billion of us are underfed, but this number is now exceeded by those who are overweight or obese. How can we shift towards sustainable diets and food systems? Furthermore, can we obtain a balance between the demands of equitable public health and the need to secure a healthy planet?

#### Sustainable Food Policy: *Lessons from Europe*

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For hundreds of years, the vast majority of Europeans did not have enough to eat. After the World War II, the European Economic Community and subsequently the European Union was formed to ensure that this situation would never occur again. With a revolution in farming methods, the supply problems of the past have eased. Today, the quest for sustainable food policies requires a better balance between environment, social justice and the need for healthy sustainable diets. Europe may have come a long way—with lessons for elsewhere—but much more needs to be done.

#### Oman National Nutrition Strategy

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Between 1970 and 2005, Oman's *per capita* gross domestic product rose 30-fold from 158 Omani riyals (OMR) to 8,289 OMR, bringing with it promises of modernity. That 35-year span marked a period of remarkable growth accompanied by demographical, epidemiological and nutritional changes, including the overconsumption of processed foods, low exercise levels and limited access to organic produce. In addition, the pre-pregnancy nutritional needs of women are often neglected, sometimes resulting in low birth weight babies. Other issues include disappointing rates of exclusive breastfeeding until six months; poor nutrition *in utero* and in the first two years of life; and micronutrient deficiencies in part from limited dietary diversity. Higher rates of overweight and obese individuals accompanied by non-communicable diseases (such as cardiovascular and coronary artery disease, diabetes and cancer) are imposing great costs. The challenge is to identify the areas of greatest need, increase the national health system's ability to improve public nutrition and mobilise relevant resources to serve these needs. This strategy aims to define trends and issues and suggest future public health achievement possibilities over the next three and a half decades in order to reach the country's health vision goals of 2050. Before any programmes can be planned, implemented or evaluated, the public's capacity to better their nutrition must be improved. Additionally, a multisectoral approach must be developed to establish a core system for proceeding with national public nutrition policies and interventions. Finally, a public nutrition knowledge base must be encouraged and issues and disparities must be identified and prioritised in order to target programmes appropriately.

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## Nutrition and Food Security in the Arab World

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Over the last four decades, Arab countries in the near East and North African (NENA) region have made long strides in increasing the food supply to their population despite structural constraints—mainly water and land limitations—to increasing food production. In Arab countries in NENA, data from food balance sheets show that the energy supply has increased by 36%, protein supply by 39.3% and fat supply by 56.6% since the early 1970s. Notwithstanding this increase in food availability, these countries have not made parallel improvements in reducing malnutrition. The prevalence of malnutrition in both its manifestations, under- and over-nutrition, has been increasing in some of these countries, placing them high on the world list of countries with malnutrition problems. Under- and over-nutrition exists in all Arab countries of NENA, but their degree of prevalence varies from one country to another depending on many factors, including income and development levels. Nutritional transition, which is marked by the double burden of malnutrition and micronutrient deficiencies, especially anaemia, is common to all countries. The long-term impact these nutritional problems have on the human and economic capitals of individuals and nations and the multisectoral nature of nutrition calls for the adoption of an intersectoral approach for addressing nutritional challenges and the implementation of nutrition-sensitive policies in different societal sectors (e.g. agriculture, health, trade and education) for achieving positive nutritional outcomes.

## Obesity and its Risk Factors in the Arab World

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Evidence from epidemiological studies reveals that the increased consumption of refined carbohydrates (cereals), sugars, sweeteners (especially high fructose corn syrup), oils and fats can be implicated in the increased prevalence of obesity. During the past few decades, major changes in dietary habits have mainly been related to a dramatic increase in the intake of macromineral (potassium, phosphorus and magnesium)-free commodities such as oils, sugar and sweeteners, which contain negligible amounts of the above macrominerals, and refined cereal commodities, where refinement has reduced macromineral content by about 70%. In developed and transitional countries, the consumption of these commodities is known to be inversely related to socioeconomic status, mainly because of their high energy density (kcal/g food) and low energy cost. Increased urbanisation is reportedly associated with an increased consumption of vegetable fats and sugars. A high *per capita* gross national product is associated with higher consumption of vegetable and animal fats and sugars, with a sharp decrease in the consumption of complex carbohydrates. It can therefore be deduced that the high intake of refined carbohydrates, fats and sweeteners accompanied by the lower intake of fruit and vegetables, leads to a diet that is deficient or suboptimal in vitamins and minerals, including potassium, phosphorus and magnesium. Thus, the increased prevalence of obesity among people consuming high quantities of commodities with low macromineral levels may implicate these macrominerals in the development of obesity.

## World Health Organization Response to Address the Double Burden of Malnutrition in the Eastern Mediterranean Region

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Malnutrition remains a major health problem in the Eastern Mediterranean region (EMR), where it contributes to more than one-third of the child mortality rate, as well as the prevalence of stunting and underweight among children under five years of age. In many EMR countries, the high prevalence of wasting is due to natural disasters, food insecurity and political instability. Among under-five-year-olds, low levels of breastfeeding and poor feeding practices have led to an increase in the prevalence of overweight children from 5.6% in 1991 to 8.1% in 2010. Non-communicable diseases (NCDs) account for 57% of all deaths in the region, with cardiovascular disease, cancer, diabetes and chronic respiratory diseases responsible for the largest proportion. In 2012, the World Health Organization (WHO) adopted a comprehensive plan to reduce stunting, wasting, overweight, anaemia and low birth weight in children while improving breastfeeding rates in women. Technical support has been provided to member states to develop a national action plan for implementation. In 2013, the WHO agreed to nine global voluntary targets for the prevention and control of NCDs, which include a halt in the rise of diabetes and obesity and a reduction in salt intake by 2025. The Global Action Plan for the Prevention and Control of Noncommunicable Diseases provides guidance and policy options for member states to achieve targets, focusing on salt, sugar and fat reduction strategies to address NCD risk factors at global and regional levels.

## Food Security in Oman: *Challenges of a desert state*

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This study highlights the issue of food security (FS) in Oman, defines certain fundamentals, contemplates challenging issues, diagnoses certain constraints, describes features of the agricultural sector, analyses economic indicators, scrutinises food groups and proposes a road map for FS achievement along with expected outcomes. FS in Oman is a multidimensional issue, with many elements involved in its definition. Prior to oil exploration in the 1960s, Oman was considered a nearly food-secure country. However, due to urbanisation and the growth of modern food businesses, food imports have gradually increased. Currently, wheat, rice, sugar, vegetable oils and legumes, considered essential food commodities, are 100% imported. Poultry, meat, eggs, red meat and produce are produced at a rate of semi-self-sufficiency. Date and fish production is self-sufficient. While there is still potential to achieve better FS in certain plant and livestock products, water scarcity is a limiting constraint facing agricultural development. The Oman Ministry of Agriculture & Fisheries has taken serious steps toward finalising and implementing a realistic, long-term strategic plan for agricultural development. The plan includes a strategy for the development of and investment in fisheries, with more than 10 such projects under preparation. Under this plan, small and medium enterprises and cooperatives are likely to replace current traditional farming systems, resulting in modernised farming systems, increased productivity and improved FS, ultimately improving contributions to gross domestic product. Agriculture is the backbone of all food commodities and a marriage between food and agriculture has become a necessity as access to sufficient, safe and nutritious food must be available at all times for a healthy population.