

## Foreword

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### Early history of nutrition and health

The relationship between food and health dates as far back as far as 6000 years even before Imhotep, the ancient Egyptian father of medicine, described the use of certain foodstuffs as prescriptions. Night blindness and xerophthalmia (called “show” by ancient Egyptians) were treated by roasted beef liver or liver juice. A balanced diet for the wealthy was described in the message of King Unas, who reigned from around 2375 to 2345 BC, “eat good bread, ox flesh, wine, sweet and olive oil, fat, honey, figs, fish and vegetables everyday”. Later, Greek, Roman and Arab scholars started to write on the relationship between food and health. Celsus (around 25 BC–45 AD) classified foodstuffs and emphasized their role in maintaining health in his treatise on medicine. Many dietary recipes to treat various illnesses were introduced by Ibn Sina (Avicenna) and others.

### Achievements of nutritional sciences during the twentieth century

The twentieth century will be remembered as the golden age for nutrition. In this period most macro- and micronutrients were discovered, and nutritional needs and requirements were identified. The relation-

ship between nutrition and health was documented and the sequelae of over-nutrition and under-nutrition were recognized. Through research, the availability of plant and animal food increased. Large-scale famines characteristic of the nineteenth century became controllable. There was a steady improvement in combating under-nutrition and severe degrees of protein-energy malnutrition decreased. Great success was achieved in reducing iodine deficiency disorders. There was similar but less impressive success in controlling vitamin A deficiency. These improvements were accompanied by a marked increase in the rate of decline of under-five mortality between 1960 and 1980. In the year 2000, 32.5% of children under five years in developing countries (182 million) were stunted [1]. This was a great improvement over the 1980 figure of 47.1%; representing a decrease of 40 million in the number of stunted children over this period, in spite of the increase in population. In the year 2000, 26.7% of preschool children in developing countries were underweight as compared with the 1980 figure of 37.4% [1]. The improvement however was not homogenous. Improvement in the African region was much slower.

There is evidence that over-nutrition with its health consequences is increasing, especially in developing countries, which will therefore start to suffer the double burden of under- and over-nutrition.

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## Future trends and challenges

In spite of the great achievements in the field of nutrition during the past century, many factors prevented the attainment of the expressed goals and objectives of the various international conferences on nutrition. The statement of Henry Kissinger, United States Secretary of State at the 1972 World Food Conference in Rome that “within a decade no child will go to bed hungry, no family will fear for its next bread...” was never fulfilled. These factors remain today as challenges to be tackled in the quest to improve the nutrition of the world's people.

## Economic and geopolitical factors

Poverty is a cause, associated factor, catalyst and result of malnutrition and ill health. The majority of the poor, who represent a quarter of the world's population, live in developing countries. Differences in gross national product between industrialized and least developed countries range from US\$ 26.157 to US\$ 261 [2]. While the digital divide between the rich and poor countries is narrowing, it remains tremendous. Although poverty and malnutrition are linked, they are not identical and malnutrition rates vary widely even among poor countries.

An important prerequisite for the alleviation of malnutrition is social and political stability. Peaceful resolution of geopolitical, socioeconomic and ethnic conflicts, as well as awareness of and respect for human rights, are important tasks for the world community to solve in the coming decades. Two million children died in armed conflicts in the last decade of the 20th century [3]. At the end of 1998 there were 12 million refugees worldwide.

## Environmental factors

Environmental degradation, desertification, deforestation, global warming and seasonal

variations have begun to have an impact on agriculture production and they will continue to do so in the future. Every year 5.7 million hectares of agricultural land are lost [4].

## Emerging and re-emerging diseases

In spite of the successful control of many diseases through health education and vaccination, new diseases have emerged which have a negative impact on the nutrition of millions of people. For example, 90% of severely malnourished children in Lusaka, Zambia are HIV positive [5].

## Demographic factors

Although there was a decline in population growth throughout the 20th century, the decline was not uniform. In view of the critical situation in sub-Saharan Africa, the high fertility rate in this region will impede efforts to combat malnutrition. Urbanization and megacities were characteristic features of the last decades of the twentieth century. The trend is continuing. Slum areas will doubtless increase, with all the accompanying negative effects on nutrition and health. The urban poor will replace the rural poor. This will alter the structure of the diet and introduce new patterns of “fast food”, thus increasing vulnerability to nutrition-related illness.

## Constraints of United Nations system

There is a need for better coordination and communication between the different UN agencies as well as between UN agencies and other international or bilateral players in the field of nutrition. A technical approach and scientific cooperation is not sufficient to combat malnutrition. UN systems must be more involved in political, economic and social areas and should play a more proac-

tive role in helping developing countries fund-raise. They cannot remain isolated in their work, bound only by their traditional mandate. They need to reconcile themselves to interdisciplinary multisectoral planning, action and coordination.

### **Globalization and privatization**

Globalization will expand opportunities for some but not for others. Economic integration should be used as a force for improving the economies of poor countries. Cooperation should support political stability, conserve environment, empower the community, particularly women, seek justice rather than charity and pay special concern to equity and ethical issues.

Although international agreements include clauses to safeguard the needs of developing countries, it remains to be seen how these measures will be interpreted and implemented. The agreement on trade-related aspects of international property rights (TRIPS) may sometimes prevent the distribution of potential international public goods that may be helpful to poor countries because such countries can seldom afford the prices charged by patent owners. For example, some genetic technology is patented by the private sector and these patents may prevent farmers from reusing their seeds.

The influence of the private sector will grow including that of food manufacturing companies. This will make the cost of food up to three times higher than the farm value which will have a negative nutritional impact on the poor [6]. The fast food culture will undoubtedly spread, especially in newly urbanized areas. Globalization will raise concern on many ethical issues related to nutrition and health: genetic manipulation of food is an example.

### **Scientific advances**

Technologies cannot simply be transferred but must be adapted or redesigned to suit different conditions. There is concern about the transfer of harmful by-products as a result of the transfer of a hazardous industry or technology. Advances in communication technology will highlight the role of the media in influencing style and food consumption patterns. Novel marketing techniques may adversely affect the consumption of a traditional cheap nutritious diet, and may aggravate inequities and contribute to the emerging menace of over-nutrition and diet-related diseases in developing countries.

### **Conclusion**

A new agenda of international scientific cooperation in nutrition research must be developed to deal with the changing trends of the 21st century. It is not enough for nutritional scientists to solve worldwide nutritional problems through laboratory studies or in pilot projects. They must play a pivotal role at both the community and the decision-making levels. They must act together to maximize nutritional benefits and minimize the possible harm of the trends described so that everyone, everywhere can attain optimal nutrition.

The contributors to this special issue on nutrition of the *Eastern Mediterranean Health Journal* have examined and reviewed the many and varied determinants affecting nutrition. These papers indicate the way forward and may act as a guide for the development of a much-needed future strategy to combat both under- and over-nutrition in the Region.

### References

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Nutrition is a fundamental pillar of life, health and development across the entire lifespan. From the earliest stages of fetal development, at birth, through infancy, childhood, adolescence and on into adulthood and old age, proper food and good nutrition are essential for survival, physical growth, mental development, performance and productivity, health and well-being. It is an essential foundation of human and national development. Information about the nutrition situation in the Eastern Mediterranean Region and the work of the WHO Regional Office for the Eastern Mediterranean in this vital area can be found at the nutrition website of EMRO at: <http://www.emro.who.int/nutrition/index.htm>