WHO global strategy on diet, physical activity and health: Eastern Mediterranean regional consultation meeting report

Cairo, 30 April − 2 May 2003

World Health Organization
2003

Towards a WHO global strategy on diet, physical activity and health

Background

1979 The Global Strategy for Health for All by the year 2000 underlined the growing importance of chronic noncommunicable diseases (NCDs) for developed and developing countries alike.

1985 The Thirty-eighth World Health Assembly called for increased efforts to assess the importance of NCDs and to coordinate long-term NCD prevention and control programmes (resolution WHA38.30).

1989 The Forty-second World Health Assembly urged the promotion of intersectoral and integrated approaches for the prevention and control of NCDs, especially at the community level in developing countries (resolution WHA42.45).

1990 In its report *Diet, nutrition and prevention of noncommunicable diseases*, a WHO Study Group made recommendations to help prevent chronic diseases and reduce their impact (WHO Technical Report Series, No. 797).

1992 The FAO/WHO International Conference on Nutrition adopted the *World Declaration on Nutrition* and the *Plan of Action for Nutrition* with the participation of 159 states and the European Economic Community. The Plan of Action for Nutrition promoted nine strategies for improving nutritional status, one of which addressed the need to promote appropriate diets and healthy lifestyles to prevent NCDs. In the following years the majority of countries prepared and launched national plans of action for nutrition, based on the global plan and its strategies.

1997 *The world health report 1997. Conquering suffering, enriching humanity* described the high rates of mortality, morbidity and disability from the major NCDs and proposed the development of a global strategy for NCD prevention and control.

1998 Recognizing the burden on public health services resulting from the growth in NCDs, the Fifty-first World Health Assembly requested the Director-General to formulate a global strategy for NCD prevention and control (resolution WHA51.18).

2000 The Fifty-third World Health Assembly endorsed the WHO global strategy for NCD prevention and control and urged Member States and WHO to increase efforts to combat NCDs (resolution WHA53.17).

2001 A WHO consultation called for urgent action to combat the growing epidemic of obesity, stressing the importance of prevention (*Obesity: preventing and managing the global epidemic. Report of a WHO consultation.* WHO Technical Report Series, No. 894).

2001 *Macroeconomics and health: investing in health for economic development*, the final report of the Commission on Macroeconomics and Health, noted that many NCDs can be effectively addressed by relatively low-cost interventions, especially prevention activities related to diet and lifestyle.

2002 Having considered a report on diet, physical activity and health, the Fifty-fifth World Health Assembly requested WHO to develop a global strategy on diet, physical activity and health (resolution WHA55.23).

2002 "Move for health" was the theme for World Health Day, 7 April 2002. "Move for health" has become a continuing initiative across the world.

2002 *The world health report 2002. Reducing risks, promoting healthy life* described how a few major risk factors account for a significant proportion of all deaths and diseases in most countries. For chronic NCDs, some of the most important include tobacco consumption, overweight and obesity, physical inactivity, low fruit and vegetable intake, and alcohol consumption, as well as the risks posed by intermediate outcomes such as hypertension and raised serum cholesterol and glucose levels.

2002 A joint FAO/WHO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases examined the latest scientific evidence available and updated recommendations for action (see below, *Phase I*, for details of its report published in 2003).

2003 The Framework Convention on Tobacco Control was adopted by the Fifty-sixth World Health Assembly in May 2003 (resolution WHA56.1).

Development of the global strategy

2003 ***Phase I***

Finalization and dissemination of *Diet, nutrition and the prevention of chronic diseases. Report of a joint FAO/WHO Expert Consultation* (WHO Technical Report Series, No. 916).

Phase II

Circulation of a consultation document to guide development of the strategy. Document made public through WHO web site – January 2003.

Six regional consultations to gather information that will form the basis of the strategy (March–June 2003).

Consultations with relevant United Nations and other international organizations, with civil society organizations and with the private sector (May–June 2003).

Phase III

Reference Group, a group of internationally recognized experts, to advise WHO on the preparation of a draft global strategy.

Completion of the draft strategy (October 2003).

2004 Submission of the draft strategy to the Executive Board at its 113th session (January 2004).

Revision of the draft strategy to take into account the Board's comments.

Discussion of the revised draft strategy at the Fifty-seventh World Health Assembly (May 2004).

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Preface

This report of the consultation in the Eastern Mediterranean Region, on the global strategy on diet, physical activity and health, is the fifth in a series of six. Organized by the Regional Office for the Eastern Mediterranean, the consultation gave the Member States' perspective on the issues encountered and made specific recommendations on direction, both for the countries of the Region, and for the development of the global strategy. As a whole, the series of reports provides a summarized global account of the status of knowledge about the links between diet, physical activity and health, and the work in countries to address the pandemic of chronic diseases. Added to this will be contributions from consultations with other United Nations organizations, civil society and the private sector. Together these will provide a strong foundation for the development and formulation of the Global Strategy on Diet, Physical Activity and Health and subsequently for action to make measurable changes in diet and physical activity at population level, with positive consequences for the prevention of noncommunicable diseases (NCDs).

As a result of the consultation in the Eastern Mediterranean Region, the following key issues were identified and recommendations to address them formulated: the limitations of the monitoring, surveillance and evaluation data; the lack of awareness regarding the health implications of diet and physical activity at the individual, community, school and government levels; unbalanced food consumption patterns; the negative influences of increased consumption of processed and fast food and sweetened soft drinks, influenced by mass media messages; the high rate of consanguineous marriages predisposing the population to various genetic disorders; the increase in tobacco consumption in the Region; and the reduction of physical activity and increase in sedentary lifestyles. This report summarizes the discussions at the consultation and outlines the recommendations made.

1. Introduction

Noncommunicable diseases, especially cardiovascular diseases (CVDs), cancers, obesity and type 2 diabetes mellitus, now kill more people every year than any other cause of death. The World Health Organization (WHO) has responded to the global rise in NCDs by giving increasing attention to their prevention and control in recent years (see Box on page 3). Four factors in the epidemiology of these diseases – poor diet, physical inactivity, tobacco and alcohol use – are of overwhelming importance to public health. Diet and physical activity have recently been the subject of intensified high-level attention by a Joint WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases.[1] The report of the Expert Consultation makes recommendations, inter alia, for optimum nutrition and for worldwide action to stimulate physical activity within a health context. WHO is currently developing a global strategy on diet, physical activity and health to give effect to these and other recommendations.

In the Eastern Mediterranean Region, a three-day regional consultation for preparing the global strategy on diet, physical activity and health was held in Cairo, Egypt from 30 April to 2 May 2003.

Fourteen participants from eight Member States and six temporary advisers attended this consultation together with representatives from the Regional Office for the Eastern Mediterranean and WHO headquarters (Annex). Dr Tawfik AM Khoja (Saudi Arabia) was elected as Chairman.

The Deputy Regional Director, Dr Mohammed Abdi Jama, opened the meeting on behalf of the Regional Director, Dr Hussein A Gezairy. He recalled the governing body policy requirements and the epidemiological background to the development of the global strategy on diet, physical activity and health and stressed the essential role played by Member States as key partners in that development process, in reviewing the work currently being undertaken in their countries, and addressing regional and national differences.

The "nutrition transition" in which diets are changing to incorporate more high-fat, high-energy foods, coupled with a sedentary lifestyle, has been associated with the current rapid increases in obesity rates. These often co-exist with situations of chronic undernutrition as well as with the global increase in prevalence of CVD and diabetes mellitus. The sharp decline in the cost of vegetable oils and sugar has put those products in direct competition with cereals as the cheapest food ingredients, resulting in a reduction in the proportion of the diet derived from grain and grain products, and a greatly increased world average energy consumption. Traditional foods are being replaced by fast foods, soft drinks and increased meat consumption. The multinational food industry has reduced the quality of the available diet, and increased its energy density. The quality of the available diet has been reduced and its energy density increased.

While little information on physical activity is currently available in the Region, studies in the Islamic Republic of Iran and in Oman indicate that 60–70% of urban inhabitants live a sedentary life. Through 'Move for health' (World Health Day 2002), and a regional consultation in April 2002, key players' attention has been drawn to this phenomenon, and recommendations produced for the integration of physical activity into health protection and promotion programmes. Several organizations have developed programmes to increase physical activity through education, the promotion of policy changes and the incorporation into daily routine of activities of moderate intensity, such as walking up the stairs.

Dr Pekka Puska, Director, Noncommunicable Disease Prevention and Health Promotion at WHO headquarters, describing the process of formulating the strategy, stressed the value of country and regional input and thanked the participants for convening to share their experience. Dr Ramez Mahaini, acting Director Health Promotion and Protection, also spoke in welcome.

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[1] *Diet, nutrition and the prevention of chronic diseases. Report of a Joint FAO/WHO Expert Consultation.* Geneva, World Health Organization, 2003 (WHO Technical Report Series, No. 916).

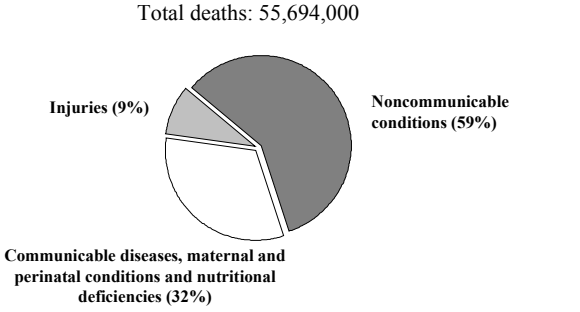
After a series of presentations by WHO staff and scientific experts (summarized in sections 2 and 3), the participants worked in groups to examine the key issues in relation to diet and nutrition, and to physical activity, and to identify the barriers and obstacles to progress, priority actions and key players in these two areas (section 4). On the basis of the discussions in these groups, the consultation adopted a series of recommendations (section 5).

2. The global perspective

2.1 Health in transition

The world's health is undergoing an unprecedented transition on several fronts: epidemiological, nutritional and demographic. The result, felt keenly at country level and substantiated unequivocally by scientific evidence, is a broad shift in disease burden. The majority of deaths (59%) are from NCDs (Figure 1).

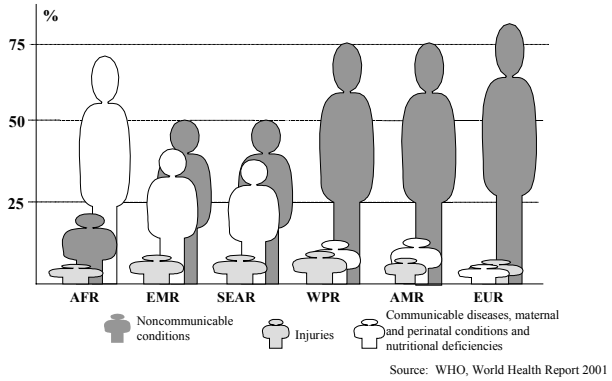
Figure 1
Death, by broad cause group 2000



Source: WHO, World Health Report 2001

In the European, American and Western Pacific Regions, NCDs are in an overwhelming majority. The South-East Asia and Eastern Mediterranean Regions are in transition, with NCDs now a more significant public health problem than infectious diseases (Figure 2).

Figure 2
Deaths, by broad cause group and WHO Region, 2000

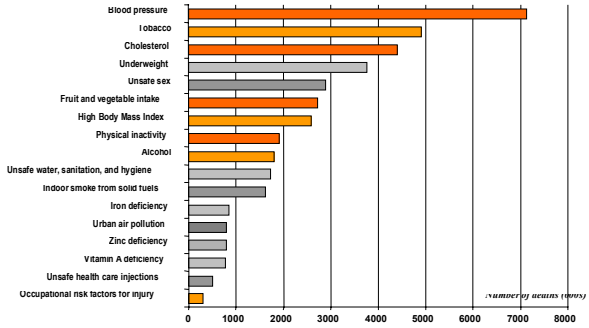


Source: WHO, World Health Report 2001

The African Region is also in transition and, while in many countries in the Region communicable diseases still predominate, the incidence of NCDs is rising rapidly.

A wealth of medical research shows the risk factors responsible for this growing pandemic and clearly points out the strategies needed to reduce their impact.[2] The data gathered for *The world health report 2002* show high blood pressure to be the major contributing factor to all deaths in the world (Figure 3).[3] Of the ten leading risk factors, six relate to nutrition, diet and physical activity. Progress in these two areas, combined with reductions in tobacco and alcohol use, will have enormous importance for the prevention of NCDs and will lead to major health gains that are cost-effective.

Figure 3
Global deaths in 2000 attributable to selected leading risk factors

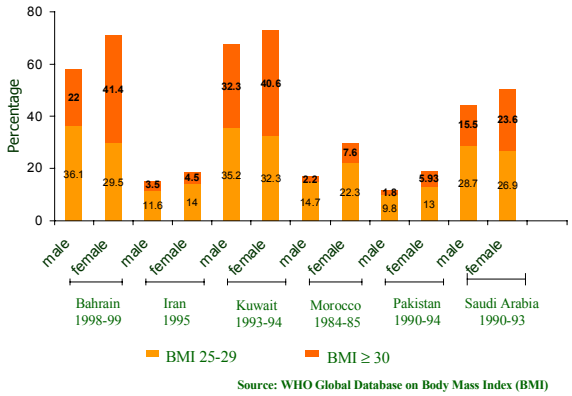


Source: WHO, World Health Report, 2002

The figures also make clear the important role played by undernutrition. This must not be forgotten in the concern to address overnutrition. In the Eastern Mediterranean Region both forms of malnutrition co-exist. Balanced diet can play an essential role in improving population health. Childhood obesity too is a growing problem, with physical inactivity a major factor. Of the eight leading risk factors in the Eastern Mediterranean Region, five relate to diet and physical activity, with blood pressure the top risk, followed by undernutrition and cholesterol. Despite the high rates of undernutrition, Figure 4 shows the prevalence of overweight and obesity among adults in selected countries in the Region to be alarmingly high. Dietary interventions must be both very well targeted and highly effective if the disease burden threatened by both these nutritional conditions is to be avoided or mitigated.

Figure 4

Prevalence of Overweight & Obesity
Among Adults in countries in the Eastern Mediterranean



Source: WHO Global Database on Body Mass Index (BMI)

[2] Risk is defined as "a probability of an adverse outcome, or a factor that raises this probability" by WHO in *The world health report (2002) see below*.
[3] *The world health report 2002. Reducing risks, promoting healthy life*. World Health Organization, Geneva, Switzerland, 2002.

Close to 80% of the NCD disease burden is now found in the developing world, moving to lower socioeconomic groups and contributing strongly to inequity in health. The determinants of these changes are urbanization, changes in occupation and many global influences. The transition concerns adults and children alike.

NCDs are to a great extent preventable diseases. Whilst genetic susceptibility to NCDs is a factor in South-East Asia, appropriate preventive action can change environments, protect against risk factors, and change life expectations. On a population scale, relatively modest behavioural changes that affect several of the risk factors can make swift, affordable and dramatic changes in population health.

Diet is a powerful instrument to prevent NCDs as many countries have already found. In North Karelia, Finland, a community-based project which encouraged a healthier diet reduced annual coronary heart disease (CHD) mortality by 73% over 25 years. In Japan, reduction of salt intake resulted in lower blood pressure levels and greatly reduced stoke mortality; in Mauritius, changing cooking oil from palm to soy bean oil resulted in a 15% decrease in serum cholesterol in the population; and in Poland, a change in dietary fats resulted in a 20% decline in heart disease mortality.

There are many obstacles to implementing prevention activities, but they can be overcome. They include: outdated concepts such as seeing NCDs as "diseases of affluence"; a lack of understanding about the speed with which prevention activities can make an impact on morbidity and mortality; low public visibility for success stories in comparison to the needs of sick patients; powerful commercial interests that block policies and generate conflicting messages; traditional training of health personnel that emphasizes curative care; and inertia among institutions, financing, and services.

Food consumption and physical activity patterns are a key to tackling NCDs. However, these behaviours are embedded in the environment, the community, and in areas such as agriculture and food policies. It will be essential to work with all these sectors as partners, and to look carefully at what factors influence consumption patterns, in dialogue with those partners. The problems are complex, and cannot be solved by any one entity on its own. The consultation process for the global strategy will draw all those partners into debate, with the specific intention of working positively towards change. WHO is confident that, with this background and through broad consultation, the global strategy will be successfully developed and implemented, leading to major health gains in Member States and globally.

2.2 Healthy dietary concepts and principles

The life-course perspective on appropriate nutrition provides a way of understanding how dietary behaviours at every stage of life affect health status, even before birth. The capacities to resist diseases, develop intellectually, earn a living, and raise a healthy family are all essentially affected ─ either positively or negatively ─ by diet. There are causal links between malnourished women bearing low-birth-weight infants, which can then grow rapidly, putting them at increased risk of hypertension and overweight. These infants may achieve inadequate growth, resulting in stunting, and the probable repeat of the cycle when they themselves bear children. Certain elements within diets are particularly influential and action to increase or decrease intake levels can have dramatic effects. The Joint FAO/WHO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases reviewed the extensive scientific evidence of dietary influences on health, delineating "convincing" and "probable" evidence for food issues in relation, inter alia, to obesity, CVD, cancers, and oral health, outlining risk factors and protective factors, and recommending population dietary intake goals.

Food-based dietary guidelines, individually crafted for each country, taking into account that country's specific needs and the availability of nutrient sources, are a sensitive

way of promoting appropriate nutrition at population level and should form an important part of each country's plans.

The cost of NCDs is not well understood. The obvious direct costs include healthcare resources used in the management and prevention of NCDs. These are heavy, but the indirect costs (such as loss of economic activity due to illness and premature death associated with NCDs) and intangible costs (such as social and personal loss) are even greater and must be taken into account. The global strategy on diet, physical activity and health will look at the societal and economic implications of the NCD pandemic, as well as the determinants of change and the knowledge and research gaps.

Governmental responsibilities for food are many and include fiscal and research policies, food standards for pre-schools and public sector catering, and health education. There are also important roles for the community and for the individual, given how the environment influences choice and action (for example school environments can actively promote obesity and caries) and given how sustained marketing campaigns can manipulate food preferences, especially among young children who are incapable of informed choice. Of great concern is the fact that the cheapest foods are those high in fats and sugars.

2.3 Current concepts and approaches in physical activity

Whilst the benefits of physical activity[4] have been well known since ancient times, the multiple negative effects of not "moving for health" have not been brought into focus until recently. Difficulties in assessing levels of activity include: how much activity is required for health benefit; how to measure it; what are the determinants of physical activity; and what strategies and interventions are effective to get people moving. A new physical activity surveillance tool, the Global Physical Activity Questionnaire (GPAQ) has been developed to collect physical activity information in low and middle income countries, where occupational, transport and domestic activity account for more energy expenditure than does leisure-time. This situation is the reverse of what is seen in most developed countries, where occupational and transport activities require very little energy expenditure.

The scientific evidence on the subject is unequivocal: lack of physical activity causes at least 2 million deaths globally and contributes 3−4% of the world's total disease burden. Fifty years of study have established the links with heart disease: globally 22% of CHD deaths are attributable to physical inactivity. There is a causal relationship with ischaemic stroke, where 11% of deaths are inactivity-linked, and with diabetes mellitus, where 14% of cases are attributable. Ten per cent of breast cancer can be explained by physical inactivity, as can 16% of colon cancers. There is good evidence of the positive contribution made by physical activity to reductions in obesity, osteoporosis, low back pain, and mental health, as well as its supportive effect on recovery from falls. In the Eastern Mediterranean Region, lack of physical activity is estimated to cause 124 000 deaths, 1.48 million disability-adjusted life years (DALYs), and 1.24 years of life lost (YLL).

The standard recommendation for physical activity to reduce risk is for individuals to accumulate 30 minutes of moderate intensity activity each day.[5] Where possible, vigorous activity should also be undertaken. For weight reduction or maintenance, 60−90 minutes of at least moderate activity may be necessary.

The interventions that should be considered in the Region are: community-wide campaigns, "point-of-decision prompts", (like signs encouraging walking by the stairs), school-based physical activities, individual behaviour-changing approaches, social support in a community context (this is especially important where activity is not familiar and where the environment needs to be made safe first), and access to facilities.

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[4] Defined as: "any bodily movement produced by skeletal muscles that results in energy expenditure" Casperson CJ, Powell KE, Christenson GM. Physical activity, exercise, and physical fitness: definitions and distinctions for health related research. *Public health report*, 1985, 100:126−131.

[5] United States Surgeon General's Report on Physical Activity and Health, 1996 and *Diet, nutrition and the prevention of chronic disease. Report of a Joint FAO/WHO Expert Consultation*, 2003, op. cit.

3. The regional perspective

3.1 The burden of noncommunicable diseases, Eastern Mediterranean countries

The Eastern Mediterranean Region provides a classic example of countries in the midst of an epidemiological transition. Issues include increasing rates of obesity with growing prevalence of hypertension and diabetes, and high rates of smoking and of consanguineous marriages (associated with a high risk of genetic disorders).

Among a heavy burden of NCDs, CVD and stroke are major causes of illness in the Region. Hypertension affects 26% of the Region's population, while combined overweight and obesity rates reach 61% for men and 62% for women in Bahrain, and 52% for men and 75% for women in the Islamic Republic of Iran.[6] Smoking prevalence is as high as 61.9% among men and 48% among women in some countries. The prevalence of hyperlipidemia is also a concern, for instance in Lebanon and the Islamic Republic of Iran. Recent estimates show diabetes prevalence to range from 7% to 25% in the Region, reaching pandemic proportions in the Gulf area. The population's sedentary lifestyle is also emerging as a public health problem, with 70–80% being physically inactive. Deaths from cancer in the Region, however, are only 8%, the lowest rate worldwide.

NCDs are preventable. Countries in the Region need to be encouraged to conduct risk-factor analysis. With these data countries will be able to undertake situation assessment and develop appropriate interventions. It is simply unaffordable to neglect surveillance of NCD risk factors.

The implementation of NCD programmes faces several problems, including a lack of: risk factor surveillance data; harmonization of monitoring and surveillance methodologies; mortality data; training for medical professionals and paramedicals on NCD prevention and control; adequate information on health care services management for major NCDs; and work on assessing the cost-effectiveness of various interventions.

While chronic conditions dominate the disease burden worldwide, health systems still address acute conditions. Health systems must become more coordinated and comprehensive with an emphasis on primary prevention. Chronic illnesses such as diabetes or CVD are no longer considered in isolation; the sharing of risk factors means that similar strategies can effectively treat many different conditions. There is a need to develop standards of care, guidelines for screening, early detection and management, integrated primary prevention and primary health care approaches, and community-based programmes.

In March 2003 the Regional Office established an expert advisory panel for NCD. A series of consultative meetings held in the Region in 2002–2003 on the STEPwise surveillance system has now gathered sufficient data from the Gulf. STEPwise NCD risk factor surveillance has now started in Lebanon and the Syrian Arab Republic. In 2002–2003, the Regional Office supported the development of several NCD-related clinical and regional guidelines and held four NCD consultation meetings.

The network of countries called the "Eastern Mediterranean Approach to Noncommunicable Diseases" (EMAN), established in 2001, seeks to improve health in the Region by reducing mortality and morbidity from major NCDs through integrated, comprehensive and collaborative community-based programmes. Its main objectives are to reduce simultaneously common risk factors for major NCDs and its main programme features and prerequisites for membership include a national situation analysis and reliable information on health services. Nine countries in the Region have joined EMAN so far, with the Gulf area being a priority, and this will rise to 12 by the end of November 2003. An EMAN website is being established.

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[6] In the presentations that follow, data on overweight and obesity is drawn from a variety of sources ─ local and national ─ and may use differing BMI threshold values. Where the "cut-off" point was specified, that information is given in the summary. BMI between 25 kg/m2 and 29.9 kg/m2 identifies overweight adults, while BMI of 30 kg/m2 or greater is used to identify obesity in adults.

3.2 Diet, overweight and obesity: the regional crisis

Overweight and obesity are the most important new health challenges in the Region. The modern environment has allowed these conditions to increase at alarming rates. However, despite prosperity, malnutrition still persists in the Region, with stunting rates in 2001 reaching as high as 57.1% in Yemen (height for age ≤ 2 standard deviations).

Several countries of the Region have very high rates of overweight and obesity. While there has been some recent interest in the issue, prevalence studies have applied varying threshold values for BMI, with resulting comparability problems. Variations in intercountry and intracountry study designs compound the problem. However, the basic trend is clear: there is a stable prevalence rate of overweight and obesity in the Region of 40–60%. However, new countries are reporting increases in prevalence in some populations, such as women, in poor communities in Pakistan. The rate of obesity in children under five years of age is as high as 14% in Saudi Arabia; while in school-age children in Kuwait it reaches 36%. Studies of college/university students in Bahrain, Kuwait, Saudi Arabia and United Arab Emirates reveal ranges of overweight prevalence from 16% to 27% and of obesity from 7% to 18%.

The problems of overweight and obesity are encountered in all social strata, but are reported as being higher in males from high-income/high-education groups and in females from low-income/low-education groups. Despite this social spread, obesity and overweight are often perceived as signs of good health and prosperity. BMI increases progressively with age for both males and females, reaching a maximum in the fifth decade of life. Mean BMI for both males and females is reported to be higher in urban as compared to rural areas. Rural living is still associated with more activity and limited food availability.

3.3 Healthy lifestyles with special emphasis on enhancing risk reduction approaches in the Eastern Mediterranean Region

Low-and middle-income countries suffer the greatest impact from NCDs: 85% of the global NCD burden is borne by low-income and middle-income countries. Within the Region, the urban population has grown larger than the rural population, and overall the population is ageing. Infant and maternal mortality rates are declining, and life expectancy is on the rise. The globalization of media and trade is leading to rapid changes in lifestyle and behavioural patterns. Certain countries have also experienced complex emergencies resulting in population migration and displacement. Increasing rates of overnutrition, hypertension, and diabetes are being seen. Smoking prevalence is increasing among women. Substance abuse is also increasing, with more injecting drug users.

Road and traffic accidents are increasing. They were the ninth leading cause of death in 1998, with the Region leading the world, and are projected to increase to the third leading cause by 2020. This has an obvious impact on physical activity (e.g. reducing safety and therefore the ability to take exercise), and underlines the important role to be played by urban planning.

Changes in diet are reflected by oral health indicators. They show deterioration or only slow improvement: the DMFT index for Decayed, Missed and Filled Teeth among 12 year-olds has improved in very few countries and deteriorated in many others. Most countries also show a high prevalence of periodontal disease in the form of bleeding and calculus. Unhealthy lifestyles are reflected in dental caries and periodontal diseases. Decayed teeth in preschool children also show an alarming situation for oral health amongst children in some countries. Fluorosis is common in many countries, but is not well studied and its mapping at local level has not been seen as a priority. Without changes in diet, oral health programmes in schools will not work.

Specific obstacles to increased physical activity in the Region include issues in relation to age, gender, culture, and various taboos and myths such as the supposed cost and

time-consuming nature of physical activity. These need to be addressed through increased knowledge, in terms of functional literacy, rather than through information alone. There is also a lack of policy and legislation, and a need for greater political commitment to address the issues. Furthermore, it is necessary to change the sedentary lifestyle of the population and create safe and convenient exercise facilities.

Challenges include a lack of reliable data on the effectiveness of prevention strategies, limited intersectoral cooperation for health development, poor community involvement, the weakness of health systems in timely analysis of data and policy formulation, coordination and regulation, and inadequate resource allocation for prevention and health promotion programmes and activities. The health sector needs to find a place on the agenda of other sectors and to influence their priorities. The media also has an important role. Behavioural studies are needed, especially of youth. Activities could be based on initiatives that already exist, such as "healthy cities".

For substantial reductions in the level of risk factors, interventions should have an appropriate intensity and be sustained over an extended period of time. In the process of achieving changes in diet, smoking or physical activity, complex and long-term shifts in agriculture, environment, commerce and transport policy are needed. Effective health promotion requires the full alertness of the public to the health risks associated with consumer products and services. The mass media and private sector, together with communities, should be involved in the planning process for health promotion programmes and participate in the implementation, monitoring and evaluation of activities. Changing habits and lifestyles among children and youth need to be addressed carefully and the information generated should be used for advocacy and strategic planning. Prevention and health promotion can reduce the future burden of disease, but for decades health systems have been based on treating individual acute episodes of ill health. There is an urgent need to invest in preventive strategies against chronic diseases and in population-based prevention programmes.

3.4 Discussion of presentations

The training of health staff and services development were seen as two priorities, including the role of academic and health institutions in changing training from a curative to a preventative approach. The possibilities for participation in NCD prevention training organized by the Integrated Noncommunicable Diseases Intervention (CINDI) programme of the WHO European office were noted and the needs for medical school curricula to be reoriented and links made, for medical students to learn through practice and not only from theory, and for the building of respect for public health as a speciality. It was pointed out that community-based primary health care is a key emphasis for the Region.

There was further discussion about the link between stress and CVD. It was observed that, although there is a common belief in this link, the evidence for it is unclear, with stronger links known with diet, smoking and physical activity. However, it was also noted that some research had suggested a stronger link between stress and CVD than smoking. The Regional Office considers stress to be an important issue and is planning questions on it for health surveys, despite the problem of how to quantify it. It was further observed that it would be useful to unite the nongovernmental organizations working in the Region in a more comprehensive way, through a partnership approach.

The role of the food industry was considered, in terms of advertising and marketing, and agreement reached that it would be important to work with that industry. Healthy school meals should replace the consumption of sweets, snacks and soft drinks. There was also discussion on the need for solid research and data for the Region, in particular regarding physical activity, including the need to apply the STEPwise system. This is important because, in the absence of such data, the WHO mortality database has been used to calculate "best guess" estimates for the Region. It was pointed out that reliability and validation work is being done on the Global Physical Activity Questionnaire (see section 2.2) to make it more appropriate for developing countries. It was emphasized that efforts to tackle lack of physical

activity in the Region need to address age and gender issues, including cultural barriers to women taking exercise, and to adopt a life-course approach. Finally, the financial and human costs of inactivity need to be highlighted in advocacy to political leaders.

There are dangers in the absence of labelling or control of food composition in catering/fast food outlets or restaurants, and where foods are labelled, the information given can be misleading about health issues. Labels themselves do not change consumer behaviour. However, the ability of consumers to understand what is on the label and make informed choices is an important right and also a significant element of their power to exert pressure on manufacturers and retailers. This provides a potential entry point for dialogue with the food industry. It will be very important for effective food labelling to take into account the varying literacy levels in countries and discuss what measures (such as the use of symbols) are appropriate.

3.5 Country presentations

Bahrain

CVD accounted for around 28.5% of total deaths in 2001. A Gulf family health survey in 1995 found that 5% of men and 8% of women had a history of high blood pressure, while a national nutrition survey in 1999 found that 12.1% of males and 20.6% of females had a positive self-reported history of clinically diagnosed hypertension. A diabetes prevalence of 30% was found among people aged 40–69 years in a population-based study, while a 1999 national nutrition survey found only 13.3% of males and 15.6% of females to have self-reported a history of diagnosed diabetes. The 1999 survey also found 36.7% of males and 28.3% of females to be overweight, and 23.3% of males and 34.1% of females to be obese, and while 80.1% of males and 83.3% of females reported some physical activity in their leisure time, only 10.4% of males and 2.2% of females undertook vigorous physical activities.

There is no national plan for controlling NCDs at present, although measures implemented by the Ministry of Health include education, some limited screening such as on World Health Day, disease management, research, and training. Other ministries also play an important role in education, creating a supportive environment and legislation. These include: education (e.g. school curricula and sports days), information, commerce, municipality (e.g. walking tracks), and the General Organization for Sport and Youth (e.g. sports competitions and 'sports for all' exercise classes). The private sector and nongovernmental organizations both participate in education activities and the creation of supportive environments such as the building of a safe walking track, initiated by the Diabetes Society, while in the media there are daily messages promoting healthy eating. Constraints include a lack of communication and coordination between all concerned sectors, a shortage of human resources, centralization, and an insufficiently supportive environment.

Cyprus

Despite having a good health infrastructure, Cyprus' disease profile shows a similar range of problems to other countries in the Region, with CHD responsible for almost half of all recorded deaths in 2000. Records show 55% of the population to have hypercholesterolemia, 21% to have a BMI > 30 kg/m^2, 35.8% to have a BMI >25 kg/m^2 and 23% to have high blood pressure. Diseases of the circulatory system are the leading cause of hospitalization and death in Cyprus among both men and women. A 1998 study showed alarming levels of cholesterol among children: 55% had levels above 170mg/dl and, among 11−12 year-olds, 18% had cholesterol levels above 200mg/dl. In the same study, 44% of boys and 38% girls were overweight. In a 1997−1998 study, 87% of children had a fat intake of more than 30%, with lower-than-recommended levels of carbohydrate and fruit and vegetable intake.

Physical activity in the country (defined as activity taken outside working hours) was very low: 80% were classified as "inactive". These factors, as well as recognition of the more demanding working hours, stressful jobs, the more sedentary lifestyles, the lack of infrastructure to support increased walking and physical activity together with increased caloric intake, prompted the Ministry of Health to start a series of programmes in 1994. These programmes are to motivate Cypriots to live more healthily, starting at Kindergarten level to teach children (through programmes such as "Breakfast for all") to make healthier choices. The 1999 "School canteen" programme tried to create more supportive environments through changing what was available to children. In 1998 "Fibre for a healthy life" put forward messages about reducing fat intake and increasing fibre through an interactive computer game for children. The Ministry has also tried to promote the resumption of the traditional "Mediterranean diet", reminding Cypriots of their cultural dietary roots through celebrations in schools, and villages in rural areas.

Egypt

Demographic changes in Egypt include a fast-growing population (65 million in 1996), with increased life expectancy at birth (to 67 years), a reduction in infant mortality and an increase in the number of older persons. While undernutrition has decreased, overweight and obesity has increased among both the young and adults. Overweight is higher among men than women, while obesity is higher among women than men. The daily dietary energy supply has increased from 2287 to 3282 kcal per capita, with an increase in the consumption of carbohydrates (cereals) and fats, especially animal fat/hydrogenated vegetable oil. More than half of all households consume more than 100% of their recommended daily allowance of energy. The widespread adoption of street food by low-income groups and fast food by the urban younger generation, the role of the food industry, commercial advertisements and lack of nutrition awareness all play a role in this nutrition transition. There is an increasing lack of physical activity: a limited study of adults aged 20–70 years found that only 2% engaged in daily physical activity, 8.5% at weekends and 2.5% when on annual leave. More women (48%) than men (15%) watch television.

Prevalence of diabetes was 9.3% in 1996, rising to 20% in higher socioeconomic classes in urban areas. A 1996 national survey of adults found a hypertension rate of 26%, among which 60% of detected cases were not aware of their condition. The prevalence of smoking is increasing, with overall rates of 48% among adults (10% among women), and the spread of *shisha* (waterpipe) smoking among the urban young.

The Ministry of Health and Population's "Egypt Healthy Lifestyle Initiative Programme" is a multisectoral, partnership-based strategy, based on a common risk-factor approach to NCDs, including a national programme for physical activity, national dietary guidelines and smoking regulation.

Islamic Republic of Iran

In 2000, a situation analysis found that 34.8% of deaths and 27.5 years of life lost were due to CVD. The prevalence of hypertension was found to be 11.5%, but is very high in the 40–69 years (15%) and the over-70 years (33%) age groups. Physical inactivity is 88% (assessed in the framework of the Healthy Heart Project figures). The frequency of hypercholesterolemia (more than 240mg/dl) by age found the highest rates in the 40–69 years (17.9%) and over-70 years (16.8%) age groups. The frequency of cigarette smoking in 1991 was 11.9%. BMI distribution in Iranians aged 15–39 in 2000 indicated the highest obesity in women in urban areas (10–15%). There has been an upward trend of calorie intake (1971–1991), with increased consumption of sugar and bread/cereals, and insufficient dairy, fish, fruit and vegetable consumption. The National Household Food Consumption Survey (1992–1995) found that 20% of the population got less than 80% of their energy requirement, while 43% got 120% of their requirement, leading to both under- and over-consumption among the poor and richer respectively. The survey also revealed a problem with calcium osteoporosis in the population.

A national lifestyle programme to achieve dietary habit modification, increased physical activity and control of smoking exists. This seeks integration of these preventive activities into the health system (particularly at primary health care level) and intersectoral collaboration between different ministries, nongovernmental organizations, the private sector, food industry, mass media and parliament. There are also several provincial and major city-based projects for NCD prevention, as well as a national network for the prevention and management of diabetes.

Jordan

CVD was the leading cause of death in Jordan in 1991 (44% of male and 34.5% of female mortality). In 1993, 84% of the admissions to the department of internal medicine at Al-Basheer hospital in Amman were due to CVD, while at the Queen Alia Heart Centre 50% of patients with angiographies-confirmed CVD were below the age of 50 years. The result of the Jordan morbidity survey among adults (1996) showed an increasing prevalence of NCD risk factors. It found*, inter alia*, that 26.8% were current smokers, 9.7% were ex-smokers, 31.8% were hypertensive and 6.8%/17.5% were confirmed/suspected diabetics, with higher rates among the urban population (7.8%/19.1% urban, 5.4%/15.4% rural). In terms of BMI 1% were underweight, 31% of normal weight and the rest were overweight. In 2000, the most common cancer among men was lung cancer.

A national committee for CVD control and prevention was established in 1998. Specific targets have been set for the reduction in prevalence of CVD, hypertension, hypercholesterolemia, diabetes, smoking, overweight and physical inactivity. Strategies include: legislation, continuing education, including training for doctors regarding CVD, the production of guidelines for the management of hypertension; and health information and education to raise public awareness of CVD risk factors. A national plan for cancer prevention and control, and national committees to stop smoking and for physical activity also exist. In 2002, the ministries of health and agriculture developed a comprehensive food and nutrition policy, reviewing all relevant legislation. Steps to address food quality and safety, micronutrient deficiency, diet-related chronic disease, healthy dietary patterns and breast-feeding have also been taken.

Lebanon

The "together for heart health" project is the first community-based approach to CVD prevention in the Arab world.[7] The project was carefully developed in partnership with the community itself, with key personnel in the team being housewives, representatives from health centres, shop owners, nongovernmental organization representatives, pharmacy owners, school principals, *Mokhtar,* and lay persons. Regular meetings were held among a variety of health centres to discuss planning and implementation issues, engage the community's interest, address difficulties faced, develop links between the community and the research team, and to empower the community members. The baseline assessment and much of the fieldwork (e.g. for blood testing) was directly supported by members of the community, as was the development of three working groups, and the recruitment of the participants of the focus groups. The decisions on what was to happen in the project were made, crucially, by the community themselves.

The household survey had three main components: an assessment of the risk factors, a knowledge, attitude and behaviour survey about risk factors for CVD (including smoking, lack of exercise and nutritional habits), and health-service utilization patterns. The study population included 2846 individuals aged between 25−60 years. Among men, 63% were found to lack physical activity and among women, 71% were not physically active. Among men, 36% were obese (using standard threshold definitions) and 30% were overweight and

[7] Monograph: Afifi Soweid RA, Nakkash R, Nehlawi M, Khogali M et al. *Together for heart health: an initiative for community-based cardiovascular disease risk factor prevention and control*. Beirut: European Union (unofficial publisher), 2002.

among women, 39% were obese and 70% were overweight. Risk factors such as high blood pressure, and abnormal blood chemistry were also strongly in evidence.

Focus groups drew out ideas from the community about the feasibility of interventions and how they themselves wished to address the recognized barriers. Intervention activities were then planned to work on obstacles to health such as cultural dietary habits or the cost of food, through practical "healthy cooking" sessions, use of posters, lectures, working with youth and schoolchildren. Efforts to improve levels of physical activity included "walking days", free entrance to gyms for certain periods and the development of a neighbourhood gym, and neighbourhood walking groups.

Several lessons can be drawn from the results of the project's extensive evaluation (process/formative; impact; and outcome): the community-based approach is feasible, (although it must be remembered that each community is different); sustainability issues need to be incorporated early on; empowerment of the community (and women in particular) is an important outcome; and capacity-building is essential.

Oman

The health profile of Oman has changed: it has lower infant mortality and under-five mortality, and increased life expectancy to levels comparable with countries such as the United Kingdom or the United States of America. Investment in immunization has brought good infectious disease control but there is no corresponding preventive programme for noncommunicable disease. Over the past decade the environment has changed substantially, with more cars and roads, and increased availability and marketing of convenience foods. Lifestyles have changed, and with them have come increased prevalence of cancers, cardiovascular disease and diabetes. Hospital mortality data (1989−1993) show that the overwhelming majority of deaths are due to cardiovascular disease and cancer. Surveys in 1991 and 2000 also show a 4% annual increase in diabetes cases (from 8.3% in 1991 to 11.7% in 2000). WHO projects an increase in those figures from 60 000 people with diabetes in Oman to 217 000 cases by 2025, affecting a large sector of the population during its most productive years (those aged 30−64 years), 60% of whom do not even know they have the condition.

Using the classification of the "metabolic syndrome" 21 % of the population of Oman has at least three of the major risk factors for noncommunicable disease.[8] Between one-third to one-quarter of the population has hypertension, and the BMI of adult males has increased from 24.5 kg/m^2 in 1991 to 25.2 kg/m^2 in 2000 (although the BMI of females has decreased slightly over the same period from 26.3 kg/m^2 to 25.8 kg/m^2). Many people are not physically active. World Health Day 2002 "Move for health" saw several high-ranking officials leading activities in banks, schools and throughout the country to encourage people to walk. Currently the orientation of the health budget is towards curative and tertiary care but this will need to change to work towards preventive activities that target the huge projected increases in morbidity and mortality from NCDs.

Pakistan

Policy-making in Pakistan faces the challenge of complex health status profiles that differ distinctly between its urban (45 million) and rural (95 million) populations and its male (74 million) and female (66 million) populations. Both rural and urban poverty and undernutrition coexist with high-income groups suffering from hypertension, diabetes mellitus and obesity. In 1999, 36% of rural dwellers and 22% of urban dwellers were below the "poverty line" and throughout the country, one-third of pregnant women are

[8] Metabolic syndrome definition. "At least one of the following: impaired glucose regulation or insulin resistance and two or more of raised arterial pressure, dyslipidaemia, central or overall obesity, microalbuminuria." Alberti KG, Zimmet PZ. Definition, diagnosis and classification of diabetes mellitus and its complications. Part 1: diagnosis and classification of diabetes mellitus, provisional report of a WHO consultation. *Diabetes Medicine*, 1998, July 15(7):539−553.

malnourished, giving birth to low-birth-weight babies. In cities, more than 60% of females and 58% of males are obese with hypertension. However, this "silent killer" also affects rural populations: more than 30% of women and 25% of men aged over 65 years in rural areas are also hypertensive. Pakistan has the highest rates of diabetes mellitus in the Region, with 1995 prevalence estimates at 4 million cases, projected by WHO to rise sharply to 14 million by 2025. Cardiovascular disease is common. Communicable and parasitic diseases continue to impose a severe burden at the same time as the toll from noncommunicable disease continues to mount.

WHO is collaborating with the Government of Pakistan and many nongovernmental organizations to alleviate the problems through programmes on healthy lifestyles and CVD control. There are efforts through medical education and public awareness activities. Some behaviour changes have been seen, for example, the increased use of vegetable oil instead of animal fats in cooking. Physical activity is compulsory in all educational establishments and secondary school students are encouraged through incentives to exercise.

There are major constraints to significant improvement: public health expenditure in 2000−2001 was only 0.5% of GDP (and a major share of that went to tertiary care), authentic data on trends and prevalences of NCDs are lacking, and current health initiatives by policy-makers are inadequate, as prevention is not regarded as a priority. Much more collaboration is needed with all the other sectors and partners which can help to promote the key messages widely, such as media and international agencies, and the evolution of a "stewardship" role for the Ministry of Health in leading these efforts.

Saudi Arabia

Saudi Arabia has high rates of obesity. The National Nutrition survey of 1991 and found a prevalence of 20.8% (using standard threshold values). Other surveys found a similar overall picture among the five regions of the country, with obesity greater among females than males and a growing problem among students and schoolchildren. While per capita calorie intake was not excessive compared to other developing countries, (2786 calories per person per day) the proportion of fat within the diet was found to be more than 40%, and of that fat intake, 50% was derived from saturated fats

Nutritional knowledge and beliefs and dietary behaviour are well documented in Saudi Arabia, however, there is no intervention programme to tackle the problem of overweight and obesity. Given the increase in overweight among students and schoolchildren, and the knowledge that behaviour change in early life is an effective strategy, a computer-aided learning software program for schools has been proposed. The program, which complements the traditional means of conveying nutritional information such as posters, lectures, pamphlets, uses a multimedia approach.

Syrian Arab Republic

The national statistics indicate that cardiovascular disease is the main cause of NCD mortality (43% of cases) and diabetes mellitus type 2 is also increasing rapidly (currently at 10%). Cultural constraints, for example on acknowledging the presence of diabetes in women, complicate reporting/data collection. However, there is a clear need to encourage healthy activity and nutrition habits, and decrease high-risk behaviours such as smoking, unhealthy eating, or consanguineous marriages. Lessons taken from successful interventions include the importance of including women and religious leaders in team efforts such as "healthy village community" projects and health education efforts. Experience showed that project work in which decisions on activities to improve health status were taken jointly with youth unions and clans in rural areas were the most successful. "Health marches" have also been a useful way of encouraging people into a more active way of life.

4. Regional issues raised by the working groups

The following issues are drawn from the collective experience of the Member States.

A number of risk factors were identified. These were:

- Lack of awareness regarding the health implications of diet and physical activity at the individual, community, school and government levels;
- Unbalanced food consumption patterns;
- Increased consumption of processed and fast food and sweetened soft drinks, influenced by mass media messages;
- High rate of consanguineous marriages predisposing the population to various genetic disorders;
- Increase in tobacco consumption in the Region;
- Reduction of physical activity and increase in sedentary lifestyle.

A set of determinants that contribute to the risk factors was identified at the consultation. These determinants were the following:

- Economic factors including both poverty and affluence;
- Cultural and traditional elements in different societies in the Region which contribute to the constraints;
- Illiteracy;
- Lack of supportive environments for measures to combat NCDs through diet and physical activities;
- Urbanization;
- Industrialization;
- Inadequate commitment by decision-makers;
- Insufficient professional human resources to deal with the issues;
- Insufficient intersectoral coordination within and between the ministries and other bodies concerned – agricultural, education, urban development, information, environment, supply, industry, municipalities and academia.

5. Conclusions and recommendations

5.2 Conclusions

1. The current status of Member States differs with regard to diet, physical activity and noncommunicable diseases.

2. Undernutrition and overnutrition co-exist; strategies and policies to address them must be sufficiently sensitive to respond to each without exacerbating the problem.

3. Monitoring, surveillance and evaluation data are severely limited in Member States. The available evidence presented on the levels and trends in risk factors and determinants concerning diet, physical activity and noncommunicable diseases has been collected through different methodologies and is not systematic. Most existing surveillance data and collection methods have not followed a standardized approach. Information on trends, social and economic determinants is either not available or limited in range. However, the evidence, taken over the whole region, clearly supports preventive action to address the risk factors contributing to NCDs as well as the need for urgent action to improve data collection and management.

4. Some legislation, regulation and policies related to diet, physical activity and noncommunicable diseases exist in some Member States of the Region. These regulatory areas include food labelling, food safety, flour fortification and healthy

nutrition in schools, and also the establishment of regulatory bodies and national committees. In general there is more focus on diet than on physical activity, with some attention being given to the latter in schools and cities of some Member States. However, in most instances the national policies lack coherence and activities, and implementation is limited in scope. There is an absence of national food-based dietary guidelines with few exceptions. Also there is inappropriate nutritional labelling of food products and a lack of appropriately equipped and staffed central reference laboratory facilities.

5. The consultation noted the recommendations of the Joint WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases.

5.2 Recommendations

To Member States:

Policy

1. Develop and implement national policies in line with the global strategy on diet, physical activity and noncommunicable diseases, adopting a life-course approach, involving education for the whole population, and taking into account gender and culture in that approach.
2. Establish coordination mechanisms to involve all concerned sectors, including health, agriculture, education, transport, information, finance, sport and recreation, environment and others. Due consideration should be given to the private sector, including private-health providers, nongovernmental organizations and community-based organizations.
3. Develop and disseminate food-based dietary guidelines with special emphasis on traditional diets.
4. Strengthen appropriate capacity through training courses, logistic and laboratory support.

Legislation and regulation

5. Develop and strengthen the appropriate legislative and regulatory mechanisms including food labelling, nutrition labelling, and control of inappropriate advertising.

Information, training and research

6. Establish a surveillance system on the risk factors contributing to the burden of noncommunicable diseases, based on national data and health reporting systems, and following the standards set by WHO. Countries are encouraged to establish a comprehensive database on noncommunicable diseases.
7. Review and update different educational curricula, including medical curricula for health professionals, highlighting the relationship between inappropriate dietary intake, lack of physical activity and other risk factors contributing to noncommunicable diseases within different disciplines.
8. Support and strengthen quantitative and qualitative research on inappropriate dietary intake, lack of physical activity and other risk factors contributing to noncommunicable diseases.
9. Develop and implement evaluation mechanisms to measure the impact of interventions.
10. Participate in and support the utilization of the EMAN network.

Advocacy and awareness raising

11. Initiate advocacy/awareness-raising activities that stimulate decision-makers into making NCD prevention and control a priority.
12. Support advocacy campaigns to the general public, being duly cautious that such campaigns reflect country priorities and do not conflict with combating undernutrition in general, but concentrate on the importance of achieving a balanced healthy diet.

To WHO Regional Office:

Policy

13. Adapt the Global Strategy on Diet, Physical Activity and Health according to the regional priorities, using gender and culturally sensitive approaches.
14. Support Member States in developing their policies, human resources, advocacy campaigns, surveillance, monitoring and evaluation in regard to inappropriate dietary intake, lack of physical activity and other risk factors contributing to noncommunicable diseases.
15. Provide technical support to the assessment, development and strengthening of appropriate legislative and regulatory mechanisms.
16. Give noncommunicable diseases a higher priority in the Joint Programme Review Missions and allocate more human and financial resources, in particular to support of training programmes and provision of technical support to Member States.
17. Support the preparation of country-specific food-based dietary guidelines for healthy eating.

Information, training and research

18. Support establishment of a network between countries of the Region for information exchange and technical support to Member States through training, seminars and meetings with other sectors involved in this area of work.
19. Request EMAN to update, furnish and disseminate information to Member States of the Region pertaining to risk factors contributing to noncommunicable diseases.
20. Promote implementation at national level of WHO standards and guidelines for surveillance systems related to inappropriate dietary intake, lack of physical activity and other risk factors contributing to noncommunicable diseases.

To WHO headquarters:

Policy

21. In preparation of the Global Strategy on Diet, Physical Activity and Health take into consideration regional issues, emphasizing gender and culturally sensitive approaches.
22. Allocate adequate and equitable human and financial resources through all resources, including the regular budget, at global, regional and local level to respond to Regional Office and Member State needs on diet, physical activity and health interventions, including development of guidelines for capacity-building.
23. Collaborate with concerned international United Nations agencies and others.
24. Continue to highlight, in World Health Days, the contribution made to noncommunicable diseases by inappropriate dietary intake, lack of physical activity and other risk factors.
25. Advise Member States on the review and regulation of advertising related to food.
26. Advise Member States on how to engage in constructive dialogue with the food industry, developing modalities and policies to achieve the support of the food industries to the aims of the global strategy.
27. Support the development of and implementation of food-based dietary guidelines at Member State level.

Information, training and research

28. Support the Member States, through the Regional Office, financially and technically to promote research (including multisectoral and multicentre research), surveillance and other technical activities in relation to inappropriate dietary intake, lack of physical activity and other risk factors contributing to noncommunicable diseases.

Annex List of participants

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