



# WORLD HEALTH ORGANIZATION

**EXECUTIVE BOARD**  
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## **Diet, physical activity and health**

1. The rapidly increasing burden of noncommunicable diseases is a key determinant of global public health. In 1999 these diseases contributed to approximately 60% of deaths in the world and 43% of the global burden of disease. About half these deaths are attributable to cardiovascular diseases. On the basis of current estimates, these deaths are expected to account for 73% of deaths and 60% of the disease burden by the year 2020.
2. Already 79% of deaths attributed to noncommunicable diseases occur in developing countries, where most people affected by these diseases are between 45 and 65 years old. In China and India alone the burden of cardiovascular disease is greater than in the industrialized countries as a whole.
3. Recognizing this evolution, the Fifty-third World Health Assembly (2000) adopted resolution WHA53.17 on the prevention and control of noncommunicable diseases, requesting WHO to continue to give this area high priority.
4. WHO's global strategy for the prevention and control of noncommunicable diseases recognizes the vast body of knowledge and experience in this domain.<sup>1</sup> One of the main objectives is to reduce the level of exposure to the major risk factors, namely, tobacco use, unhealthy diet and physical inactivity, which should be tackled in an integrated manner.
5. At the Fifty-fourth World Health Assembly several Member States considered that, in the context of health promotion, WHO should step up its work on effective and global strategies for nutrition and physical activity, key factors in preventing noncommunicable diseases.<sup>2</sup>
6. WHO is therefore taking steps to formulate a strategy. An informal consultation on diet and physical activity in prevention of noncommunicable diseases (Geneva, 17 to 18 September 2001) helped to lay the basis.

### **THE EVIDENCE BASE**

7. Strong evidence shows that unhealthy diet and insufficient physical activity are among the major causal risk factors in coronary heart disease, cerebrovascular strokes, several forms of cancer, type 2 diabetes, hypertension, obesity, osteoporosis, dental caries, and other conditions. A healthy diet and physical activity reduce the risk of fatal diseases through their influence on blood lipids, blood pressure, thrombosis, body weight, glucose tolerance, insulin resistance and other demonstrated

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<sup>1</sup> See document A53/14.

<sup>2</sup> See document WHA54/2001/REC/3, summary records of Committee A, seventh meeting.

metabolic changes, such as those in steroid hormones and growth factors. Physical activity also reduces stress, anxiety and depression. Consumption of vegetables and fruit, the amount and quality of fat ingested, and the intake of salt are the most important elements of a diet for prevention of both cardiovascular diseases and cancers. Maintaining normal weight and adequate physical activity throughout the life span are the most effective ways of preventing diabetes and many other chronic diseases.

8. The hazards of overweight and obesity to the health of individuals and populations were demonstrated in a recent WHO report.<sup>1</sup> Besides changes in body weight, diet and physical activity are linked to noncommunicable diseases through other mechanisms such as links between type of fat and low-density lipoprotein cholesterol, and between salt intake and blood pressure, often in people whose body weight is within normal range.

9. Trials and population studies have shown a potential for prevention. Certain studies estimate that up to 80% of cases of coronary heart disease and up to 90% of type 2 diabetes could be avoided through changing lifestyle factors, and about one-third of cancers could also be prevented by eating healthily, maintaining normal weight, and exercising throughout the life span.<sup>2</sup> Trials in China, Finland and the United States of America show that among high-risk individuals, close to 60% of type 2 diabetes cases could be prevented by modest changes in diet and physical activity. In the latter trial, the impact of these measures was double that of drug intervention. Major changes in rates of coronary heart disease and diabetes can be seen within a few years.

10. In North Karelia, Finland, where the coronary mortality rate of the 35-64 year old population was reduced in 25 years by 73% during a community-based and national programme, it was concluded that more than half of this decline could be attributed to changes in the diet of the population. In Mauritius, changes in national policy concerning edible oil led to a significant reduction of high levels of cholesterol in the population within five years. Changes in the consumption pattern of dietary fats in Poland was rapidly reflected in a 20% decline in coronary heart disease mortality. Comprehensive national policy and programmes in Singapore have been associated with declining trends of premature deaths from noncommunicable diseases.

## CHANGING PATTERNS OF DIET AND PHYSICAL ACTIVITY

11. In most economically developing countries, unprecedented social and economic change has quickly affected dietary patterns and physical activity, which in turn has contributed to the current rise in noncommunicable diseases. Other factors include the reduction in communicable disease rates and the ageing of populations.

12. This evolution is well illustrated by increasing body weight in most populations, with its detrimental health consequences.<sup>3</sup> The prevalence of obesity in adults is 10% to 25% in most countries

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<sup>1</sup> *Obesity: preventing and managing the global epidemic*. World Health Organization, Geneva, 2000 (WHO Technical Report Series, No. 894).

<sup>2</sup> Hu F.B. et al. Diet, lifestyle, and the risk of type 2 diabetes mellitus in women. *New England Journal of Medicine*, 2001, 345:790-797. Stampfer et al. Primary prevention of coronary heart disease in women through diet and lifestyle. *New England Journal of Medicine*, 2000, 343:16-22.

<sup>3</sup> See *Obesity: preventing and managing the global epidemic*.

of Western Europe, 20% to 25% in some countries in the Americas, and higher elsewhere – over 50% in some island nations of the Western Pacific.

13. There is a rapid move from high physical activity needed for daily living towards considerable physical inactivity, overweight and unbalanced nutrition. At the same time, control of undernutrition remains an unfinished work in many developing countries and is, indeed, often linked with malnutrition and even overnutrition in the same country.

14. Unchecked, dietary patterns and physical activity will continue to evolve under the influence of growing urbanization, changes in modes of transportation and work, and increasing globalization of the food supply.

15. Consequently, programmes to improve nutrition and physical activity have to take into account economic, demographic, environmental, and such geopolitical factors as the impact of poverty, population growth, pollution, civil strife and displaced persons, together with emerging diseases – HIV/AIDS, or zoonoses, for example.

## **FRAMING A STRATEGY**

16. Diet and physical activity influence health throughout life, even during early periods, which makes low-income communities especially vulnerable to noncommunicable diseases. Thus programmes to influence diets and physical activity have to use a life span approach, starting from pregnancy, breastfeeding and child nutrition, into old age when nutrition is of great importance for healthy ageing. Programmes for child and adolescent health, in schools, for example, should emphasize not only on present nutrition but also establishment of dietary habits conducive to prevention of noncommunicable diseases and to good health throughout life.

17. Even though there has been great progress in the treatment of noncommunicable diseases and in the pharmacological control of many risk factors, from a public health point of view, the greatest potential is in influencing the risk-factor distribution in the population through general lifestyle changes, notably in diet and physical activity. This is a cost-effective and sustainable way for controlling such diseases. Successful primary prevention not only reduces human suffering and increases economic productivity, but also limits the growing cost of treatment.

18. Policies to influence diet and physical activity should be based on multidisciplinary principles, and programmes should be based on evidence. Families and communities should be involved in health promotion strategies, as defined in the Ottawa Charter for Health Promotion (1986). Because of the economic, social, cultural and political background that underlies diet, national nutrition policies are a key to enabling people to adopt the desired dietary patterns.

19. In framing policies, however, countries will be affected by such global influences as trade and effects of world trade agreements, transnational food and drug companies, mass media and exogenous lifestyles, ethical questions arising from biosciences, and human rights issues.

20. In order to step up prevention efforts WHO will continue to provide up-to-date evidence on the links between diet, nutrition, physical activity and noncommunicable diseases, including guidelines for appropriate action by individuals and the population as a whole. A consultation (Geneva, 28 January to 1 February 2002), in close collaboration with FAO, will review and update recommendations on and strategies for diet, nutrition and the prevention of chronic diseases. The role of WHO

collaborating centres in research and technical support will be strengthened. Further research should also be encouraged on various aspects of nutrition and physical activity in prevention of these diseases, especially in developing countries.

21. Building on current activities and national assessments, WHO will devise demonstration programmes at regional and country levels for testing and developing national action, including training, for nutrition and physical activity, as related to prevention of noncommunicable diseases.

22. High priority should be given to national policies in order to influence patterns of diet and physical activity for effective prevention of noncommunicable diseases. Intersectoral collaboration, emphasizing links between health, agriculture, education, transportation, sport, industry, commerce and civil society should be encouraged. Such policy should encompass broad measures involving different sectors.

23. WHO will aim to ensure that the health sector is responsive to the challenge. Health services and health professionals should give high priority to interventions related to appropriate diet and adequate physical activity as a major and affordable method for preventing disease. Such interventions could also reduce the need for drugs and other forms of treatment, which are often expensive and even unaffordable or unavailable in some countries.

24. Indicators and guidelines for the surveillance of diet, nutrition and physical activity in populations are essential. Such surveillance will serve in the evaluation of policies and programmes and should be linked to broader aspects of health promotion and prevention of noncommunicable diseases.

25. International issues that have a major influence on nutrition and physical activity will be identified and addressed, including advertising and mass communication, world trade agreements, food labelling, novel foods, urban planning and transportation. WHO will seek interaction with industry to stress its responsibility in helping to achieve the goals outlined above.

26. WHO will strengthen collaboration with other organizations and bodies of the United Nations system, such as FAO, UNESCO and UNICEF, and other partners, including the World Bank, international nongovernmental organizations, professional organizations and the private sector. International collaboration will be promoted through the establishment and the coordination of networks.

#### **ACTION BY THE EXECUTIVE BOARD**

27. The Executive Board is invited to note the report.

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