Preventing Chronic Noncommunicable Diseases: The role of diet and physical activity

Introduction

Physical inactivity and unhealthy diets rich in saturated fat and oil, high in energy, salt and sugar, and low in fruits and vegetables are among the leading causes of major noncommunicable diseases, including cardiovascular diseases (CVDs), type 2 diabetes, and cancers of noninfectious origin such as colon, prostate and breast cancer. Recognizing this reality, and the heavy and growing burden of noncommunicable diseases, Member States requested the WHO Director-General to develop a global strategy on diet, physical activity and health through a broad consultative process. The World Health Assembly (WHA) endorsed this global strategy in May 2004. While the Strategy addresses diet and physical activity as the two main risks for noncommunicable diseases, it also recognizes the role of other health-promoting behaviours such as avoidance of tobacco and control of alcohol consumption, among others.

WHO Global Strategy on Diet, Physical Activity and Health

The Global Strategy on Diet, Physical Activity and Health has four main objectives:

1. To reduce the risk factors for noncommunicable diseases that stem from unhealthy diets and physical inactivity by means of essential public health action and health-promoting and disease-preventing measures;
2. To increase the overall awareness and understanding of the influences of diet and physical activity on health and of the positive impact of preventive interventions;
3. To encourage the development, strengthening and implementation of global, regional, national and community policies and action plans to improve diets and increase physical activities that are sustainable and comprehensive, and actively engage all sectors, including civil society, the private sector and the media;
4. To monitor scientific data and key influences on diet and physical activity; to support research in a broad spectrum of relevant areas, including evaluation of interventions; and to strengthen the human resources needed in this domain to enhance and sustain health.

Evidence for action

Evidence shows that when other threats to health are addressed, people can remain healthy into their seventh, eighth and ninth decades through a range of health-promoting behaviours, including healthy diets, regular and adequate physical activity, and avoidance of tobacco use. Recent research has contributed to understanding the benefits of healthy diets, physical activity, individual action
and population-based public health interventions. Although more research is needed, current knowledge warrants urgent public health action.

Risk factors for noncommunicable disease frequently coexist and interact. As the general level of risk factors rises, more people are put at risk. Preventive strategies such as increasing levels of physical activity, decreasing salt intake, limiting saturated fat, and increasing fruit and vegetable consumption would reduce risk throughout the population. Such risk reduction, even if modest, cumulatively yields sustainable benefits which exceed the impact of interventions restricted to high-risk individuals. Healthy diets and physical activity, together with tobacco control, constitute an effective strategy to contain the mounting threat of noncommunicable diseases.

Reports of international and national experts and reviews of the current scientific evidence recommend goals for nutrient intake and physical activity in order to prevent major noncommunicable diseases. These recommendations need to be considered when preparing national policies and dietary guidelines, taking into account the local situation.

**Diet**

Dietary recommendations for populations and individuals should include the following:

- Achieve energy balance between intake and expenditure and a healthy weight;
- Limit energy intake from total fats and shift fat consumption away from saturated fats to unsaturated fats and towards the elimination of transfatty acids;
- Increase consumption of fruits, vegetables, legumes, whole grains and nuts;
- Limit the intake of free sugars;
- Limit salt (sodium) consumption from all sources and ensure that salt is iodized.

**Physical activity**

Physical activity is a key determinant of energy expenditure and thus is fundamental to energy balance and weight control. Physical activity reduces risk for cardiovascular diseases and diabetes and has substantial benefits for many conditions, not only those associated with obesity. The beneficial effects of physical activity on the metabolic syndrome are mediated by mechanisms beyond controlling excess body weight. For example, physical activity reduces blood pressure, improves the level of high density lipoprotein cholesterol, improves control of blood glucose in overweight people, even without significant weight loss, and reduces the risk for colon cancer and breast cancer among women.

It is recommended that individuals engage in adequate levels of physical activity throughout their lives. Different types and amounts of physical activity are required for different health outcomes: at least 30 minutes of regular, moderate-intensity physical activity on most days of the week reduces the risk of cardiovascular disease and diabetes, colon cancer and breast cancer. Muscle strengthening and balance training can reduce falls and increase functional status among older adults. More activity may be required for weight control.

The implementation of these recommendations on diet and physical activity, together with effective measures to control tobacco use as
designed in national action plans, will effectively contribute to the prevention and reduction of noncommunicable diseases. Such plans and implementation will require sustained political commitment and the collaboration of many stakeholders.

Responsibilities

Bringing about changes in dietary habits and patterns of physical activity will require the combined efforts of many stakeholders in both the public and private sectors over several decades of health-promoting behaviour. A combination of effective actions is necessary within an integrated national programme of interventions along with partnerships at all levels, close monitoring and evaluation, and taking into account local needs.

WHO interventions and perspectives

In response to the strategy and concerned about the escalating incidence of NCDs, the World Health Organization (WHO) Regional Office for Africa, initiated many efforts to create an environment that enhances the fight against NCDs. The Regional Office advocates fruit breaks to increase the level of fruit and legume consumption at its many meetings and workshops rather than the usual coffee breaks with starchy and sugary foods. During the last two years, some countries in the WHO African Region, notably Algeria, Mauritius, Seychelles and South Africa, have been implementing aspects of the Global Strategy on Diet, Physical Activity and Health. The focus has been on addressing physical inactivity. Hitherto, almost all efforts were focused on actions on food and nutrition aspects to the detriment of physical activity. Other countries, such as Angola, Cameroon, Ghana, Kenya, Senegal and Uganda, have expressed interest in initiating physical activity programmes. Interest in physical activity and diet has been further enhanced more recently because of STEPS training in which all countries of the Region have been trained in the survey methodology. Data from countries that have published their STEPS surveys indicate very high prevalence of risk factors for noncommunicable diseases in the Region. The consequence is a high mortality rate due to cardiovascular disease, diabetes, strokes and cancers.

Figure 1. WHO Regional Director shares “fruit break” with participants at a workshop in Dakar

Partnerships with NGOs and civil society have helped governments undertake physical activities in countries. In Seychelles and South Africa, for example, most of the work is being carried out by civil society organizations, sometimes with support from academic institutions. In Mauritius, a national plan for physical activity has been developed.
To implement the Global Strategy on Diet, Physical Activity and Health, several units of the WHO Regional Office for Africa, Division of Prevention and Control of Noncommunicable Diseases and the Division of Family and Reproductive Health are collaborating to assist countries to consolidate and expand their diet and physical activity initiatives. The Global Strategy was introduced in more than thirty (30) Members States. Multidisciplinary teams including the health, education and sport sectors, NGOs and academic institutions were constituted, and multisectoral approaches for implementation were drafted.

The WHO contribution to diet and physical activity initiatives in the Region is to provide technical support to countries to develop and implement relevant activities and programmes. It is intended that in the long term, the physical activity interventions and programmes will be expanded so as to serve as entry points for comprehensive NCD prevention and control and general promotion of health. While the focus is on physical activity, diet as a related issue is considered an integral component of the endeavour to promote well-being and prevent a number of major NCDs. As part of the implementation of the WHO Global Strategy, the Regional Office in partnership with the Food and Agriculture Organization and the International Centre for Development-oriented Research in Agriculture promoted fruit and vegetable consumption in 18 countries of the Region.

Two subregional workshops on the use of physical activity and diet as entry points for the prevention of noncommunicable diseases were held in Kampala for eight countries and in Dakar for ten countries. These workshops were the first formal Regional Office activities intended to galvanize support for implementation of the Global Strategy on Diet, Physical Activity and Health.

The overall objective of the workshops was to contribute to the prevention of NCDs through promotion of physical activity and related interventions, especially diet. The specific objectives were:

- To discuss the justification for investing resources in physical activity and diet programmes at national and local levels;
- To identify key settings, populations and stakeholders as well as players in physical activity and related interventions;
To examine key approaches to address physical activity and related issues;
To agree on mechanisms for implementation and networking among stakeholders.

Following these workshops, several countries identified barriers and opportunities for the promotion of physical activity and developed national implementation plans. A total of 12 countries have reported significant progress in implementation of the Global Strategy.

Conclusion

Primary prevention of noncommunicable diseases is central to the global fight against this new epidemic of NCDs. The WHO Global Strategy on Diet, Physical Activity and Health is pivotal to these primary prevention efforts and constitutes the way forward for both primary and secondary prevention approaches.

References

2 WHO, Global Strategy on Diet, Physical Activity and Health, WHA57.17.

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