Obesity

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health.

Body mass index (BMI) is a simple index of weight-for-height that is commonly used in classifying overweight and obesity in adult populations and individuals. It is defined as the weight in kilograms divided by the square of the height in meters (kg/m2).

BMI provides the most useful population-level measure of overweight and obesity as it is the same for both sexes and for all ages of adults. However, it should be considered as a rough guide because it may not correspond to the same degree of fatness in different individuals.

The World Health Organization (WHO) defines "overweight" as a BMI equal to or more than 25, and "obesity" as a BMI equal to or more than 30. These cut-off points provide a benchmark for individual assessment, but there is evidence that risk of chronic disease in population's increases progressively from a BMI of 21.

The new WHO Child Growth Standards, launched in April 2006, include BMI charts for infants and young children up to age 5. However, measuring overweight and obesity in children aged 5 to 14 years is challenging because there is not a standard definition of childhood obesity applied worldwide. WHO is currently developing an international growth reference for school-age children and adolescents

FACTS ABOUT OVERWEIGHT AND OBESITY

WHO's latest projections indicate that globally in 2005:

- approximately 1.6 billion adults (age 15+) were overweight;
- at least 400 million adults were obese.

WHO further projects that by 2015, approximately 2.3 billion adults will be overweight and more than 700 million will be obese.

At least 20 million children under the age of 5 years are overweight globally in 2005.

Once considered a problem only in high-income countries, overweight and obesity are now dramatically on the rise in low- and middle-income countries, particularly in urban settings.

WHAT CAUSES OBESITY AND OVERWEIGHT?

The fundamental cause of obesity and overweight is an energy imbalance between calories consumed on one hand, and calories expended on the other hand. Global increases in overweight and obesity are attributable to a number of factors including:

- a global shift in diet towards increased intake of energy-dense foods that are high in fat and sugars but low in vitamins, minerals and other micronutrients; and
- a trend towards decreased physical activity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization.

WHAT ARE COMMON HEALTH CONSEQUENCES OF OVERWEIGHT AND OBESITY?

Overweight and obesity lead to serious health consequences. Risk increases progressively as BMI increases. Raised body mass index is a major risk factor for chronic diseases such as:

- Cardiovascular disease (mainly heart disease and stroke) - already the world's number one cause of death, killing 17 million people each year.
- Diabetes – which has rapidly become a global epidemic. WHO projects that diabetes deaths will increase by more than 50% worldwide in the next 10 years.
- Musculoskeletal disorders – especially osteoarthritis.
- Some cancers (endometrial, breast, and colon).

Childhood obesity is associated with a higher chance of premature death and disability in adulthood.

Many low- and middle-income countries are now facing a "double burden" of disease:

- While they continue to deal with the problems of infectious disease and under-nutrition, at the same time they are experiencing a rapid upsurge in chronic disease risk factors such as obesity and overweight, particularly in urban settings.
- It is not uncommon to find under-nutrition and obesity existing side-by-side within the same country, the same community and even within the same household.
- This double burden is caused by inadequate pre-natal, infant and young child nutrition followed by exposure to high-fat, energy-dense, micronutrient-poor foods and lack of physical activity.

HOW CAN THE BURDEN OF OVERWEIGHT AND OBESITY BE REDUCED?

Overweight and obesity, as well as their related chronic diseases, are largely preventable.

At the individual level, people can:

- achieve energy balance and a healthy weight;
- limit energy intake from total fats and shift fat consumption away from saturated fats to unsaturated fats;
- increase consumption of fruit and vegetables, as well as legumes, whole grains and nuts;
- limit the intake of sugars; and
- increase physical activity - at least 30 minutes of regular, moderate-intensity activity on most days. More activity may be required for weight control.

The implementation of these recommendations requires sustained political commitment and the collaboration of many stakeholders, public and private. Governments, international partners, civil society and nongovernmental organizations and the private sector have vital roles to play in shaping healthy environments and making healthier diet options affordable and easily accessible. This is especially important for the most vulnerable in society – the poor and children – who have limited choices about the food they eat and the environments in which they live.

Initiatives by the food industry to reduce the fat, sugar and salt content of processed foods and portion sizes, to increase introduction of innovative, healthy, and nutritious choices, and to review current marketing practices could accelerate health gains worldwide.

WHO'S STRATEGY FOR PREVENTING OVERWEIGHT AND OBESITY

Adopted by the World Health Assembly in 2004, the WHO Global Strategy on Diet, Physical Activity and Health describes the actions needed to support the adoption of healthy diets and regular physical activity. The Strategy calls upon all stakeholders to take action at global, regional and local levels and aims to lead to a significant reduction in the prevalence of chronic diseases and their common risk factors, primarily unhealthy diet and physical inactivity.

WHO's work on diet and physical activity is part of the overall WHO chronic disease prevention and control framework of the Department of Chronic Diseases and Health Promotion. The strategic objectives of the department are to: advocate for health promotion and chronic disease prevention and control; promote health, especially for poor and disadvantaged

populations; slow and reverse the adverse trends in the common chronic disease risk factors; and prevent premature deaths and avoidable disability due to major chronic diseases.

This work is complemented by that of the Department of Nutrition for Health and Development. The strategic objectives of the department are to promote healthy diets and improve the nutritional status of the population throughout the life course, particularly among the vulnerable. This is achieved by providing support to countries in developing and implementing national intersectoral Food and Nutrition Policies and Programmes to address double-burden of nutrition-related ill-health, and to contribute to the achievement of the Millennium Development Goals (MDGs).

DIET AND PHYSICAL ACTIVITY: A PUBLIC HEALTH PRIORITY

Healthy diets and regular, adequate physical activity are major factors in the promotion and maintenance of good health throughout the entire life course.

Unhealthy diets and physical inactivity are two of the main risk factors for raised blood pressure, raised blood glucose, abnormal blood lipids, overweight/obesity, and for the major chronic diseases such as cardiovascular diseases, cancer, and diabetes.

According to the World Health Report 2002:

- Low intake of fruit and vegetables is estimated to cause about 31% of ischaemic heart disease, 11% of stroke worldwide and 19% of gastrointestinal cancer. Overall, 2.7 million deaths are attributable to low fruit and vegetable intake.
- Physical inactivity is estimated to cause, globally, about 10-16% of cases each of breast cancer, colon and rectal cancers and diabetes mellitus, and about 22% of ischaemic heart disease. Overall, 1.9 million deaths are attributable to physical inactivity.

Recognizing the unique opportunity that exists to formulate and implement an effective strategy for substantially reduce deaths and disease burden worldwide by improving diet and promoting physical activity, WHO has adopted, in May 2004, the "Global Strategy on Diet, Physical Activity and Health".

RESPONSIBILITIES FOR ACTION

Bringing about changes in the dietary habits and patterns of physical activity will require the combined efforts of many stakeholders, public and private, over several decades. A combination of sound and effective actions is needed at global, regional, national and local levels, with close monitoring and evaluation of their impact.

The Global Strategy describes the responsabilities of those involved and provides recommendations for action to key stakeholders, including:

- Member states
- WHO
- International partners
- Civil society and nongovernmental organizations, and
- Private sector

DIET

Unhealthy diets and physical inactivity are major risk factors for chronic diseases.

Reports of international and national experts and reviews of the current scientific evidence recommend goals for nutrient intake in order to prevent chronic diseases.

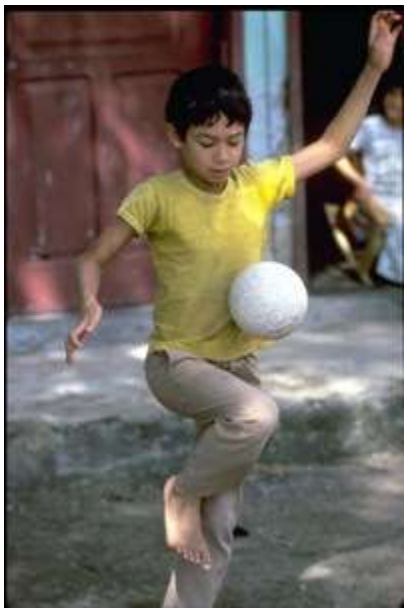
For diet, recommendations for populations and individuals should include the following:

- achieve energy balance 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 trans-fatty acids
- increase consumption of fruits and vegetables, and legumes, whole grains and nuts
- limit the intake of free sugars
- limit salt (sodium) consumption from all sources and ensure that salt is iodized

These recommendations need to be considered when preparing national policies and dietary guidelines, taking into account the local situation.

Improving dietary habits is a societal, not just an individual problem. Therefore it demands a population-based, multisectoral, multi-disciplinary, and culturally relevant approach.

PHYSICAL ACTIVITY



Physical activity is defined as any bodily movement produced by skeletal muscles that requires energy expenditure.

Physical inactivity, (a lack of physical activity) is an independent risk factor for chronic diseases, and overall is estimated to cause 1.9 million deaths globally.

Physical activity:

- Is a key determinant of energy expenditure, and thus is fundamental to energy balance and weight control.
- Reduces the risk of coronary heart disease and stroke
- Reduces risk of Type II diabetes
- Reduces the risk for colon cancer and breast cancer among women.

For physical activity, it is recommended that individuals engage in adequate levels throughout their lives. Additionally to the above mentioned benefits, being physically active also has social and mental health benefits.

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 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.

Increasing physical activity is a societal, not just an individual problem. Therefore it demands a population-based, multi-sectoral, multi-disciplinary, and culturally relevant approach.

Controlling the global obesity epidemic

The challenge

At the other end of the malnutrition scale, obesity is one of today's most blatantly visible – yet most neglected – public health problems. Paradoxically coexisting with undernutrition, an escalating global epidemic of overweight and obesity – "globesity" – is taking over many parts of the world. If immediate action is not taken, millions will suffer from an array of serious health disorders.

Obesity is a complex condition, one with serious social and psychological dimensions, that affects virtually all age and socioeconomic groups and threatens to overwhelm both developed and developing countries. In 1995, there were an estimated 200 million obese adults worldwide and another 18 million under-five children classified as overweight. As of 2000, the number of obese adults has increased to over 300 million. Contrary to conventional wisdom, the obesity epidemic is not restricted to industrialized societies; in developing countries, it is estimated that over 115 million people suffer from obesity-related problems.

Generally, although men may have higher rates of overweight, women have higher rates of obesity. For both, obesity poses a major risk for serious diet-related noncommunicable diseases, including diabetes mellitus, cardiovascular disease, hypertension and stroke, and certain forms of cancer. Its health consequences range from increased risk of premature death to serious chronic conditions that reduce the overall quality of life.

The response: making healthy choices easy choices

WHO began sounding the alarm in the 1990s, spearheading a series of expert and technical consultations. Public awareness campaigns were also initiated to sensitize policy-makers, private sector partners, medical professionals and the public at large. Aware that obesity is predominantly a "social and environmental disease", WHO is helping to develop strategies that will make healthy choices easier to make. In collaboration with the University of Sydney (Australia), WHO is calculating the worldwide economic impact of overweight and obesity. It is also working with the University of Auckland (New Zealand) to analyse the impact that globalization and rapid socioeconomic transition have on nutrition and to identify the main political, socioeconomic, cultural and physical factors which promote obesogenic environments.

What are the health consequences of being overweight?

Q: What are the health consequences of being overweight?

A: The latest WHO projections indicate that at least one in three of the world's adult population is overweight and almost one in 10 is obese. Additionally there are over 20 million children under age five who are overweight.

Being overweight or obese can have a serious impact on health. Carrying extra fat leads to serious health consequences such as cardiovascular disease (mainly heart disease and stroke), type 2 diabetes, musculoskeletal disorders like osteoarthritis, and some cancers (endometrial, breast and colon). These conditions cause premature death and substantial disability.

What is not widely known is that the risk of health problems starts when someone is only very slightly overweight, and that the likelihood of problems increases as someone becomes more and more overweight. Many of these conditions cause long-term suffering for individuals and families. In addition, the costs for the health care system can be extremely high.

The good news is that overweight and obesity are largely preventable. The key to success is to achieve an energy balance between calories consumed on one hand, and calories used on the other hand.

To reach this goal, people can limit energy intake from total fats and shift fat consumption away from saturated fats to unsaturated fats; increase consumption of fruit and vegetables, as well as legumes, whole grains and nuts; and limit their intake of sugars. And to increase calories used, people can boost their levels of physical activity - to at least 30 minutes of regular, moderate-intensity activity on most days.

Face to face with chronic disease

The disease profile of the world is rapidly evolving. This is especially true in low and middle income countries where chronic diseases are creating a double burden on top of infectious diseases. As these stories will show, even least developed countries are not immune to the growing epidemics of heart disease, stroke, cancer and other chronic diseases.

Contrary to common belief, these diseases do not only affect men in high income countries: 80% of chronic disease deaths now occur in ow and middle income countries and they affect men and women almost equally. Another unfortunate reality is that chronic diseases account for 60% of all deaths – corresponding to a projected 36.65 million deaths worldwide in 2007.

This series of stories is about people living with chronic diseases and common underlying risks. In a world where more and more people are dying as a result of chronic diseases, and many more millions are disabled, these stories aim to demonstrate the deep and personal impact of chronic diseases on individuals and their families.