

## Malnutrition and diet-related death rates remain rampant in some nations

Death rates from diseases related to diet and life-style – primarily heart conditions, cancer and diabetes – have shown big increases in many countries during the past 30 years, according to a new analysis by the World Health Organization (WHO).

These increased rates are largely owing to changes in diet and life-style, related in turn to socioeconomic shifts, the analysis says. Such diseases now pose an increasing problem in developing countries, where they were once thought to be minor or even non-existent. Meanwhile, a decline in death rates from these disorders has been recorded in some developed countries.

Micronutrient deficiency diseases constitute a second major diet-related global problem affecting some 2000 million people. These deficiencies, which can cause conditions that cripple and lead to blindness, mental retardation and death, are sometimes called “hidden hunger” because many sufferers do not know their diets lack vital nutrients. The illnesses could be practically eliminated within a decade through a concerted global effort, WHO says.

The analysis shows that there are some 50 low-income countries with a Gross National Product per capita of less than US\$ 610 a year, in which undernutrition is widespread, with high incidences of wasting or decreased physical development, stunting and micronutrient deficiencies. It says there are about 40 high-income nations where diet-related disorders, primarily obesity, cardiovascular diseases, some cancers, hypertension and diabetes, are major problems. Some 80 middle-income nations may have both undernutrition and overnutrition problems.

The analysis was conducted by WHO in 1991 and 1992 and is to be published soon by the Organization. The key findings are contained in “Nutrition and development – a global assessment”. This is the main background document for the International Conference on Nutrition, jointly organized by WHO and the Food and Agriculture Organization of the United Nations (FAO), which is being held in Rome from 5 to 11 December 1992. 1000 delegates from 150 countries are expected to attend, including representatives of health, agriculture and other ministries, international organizations and non-governmental organizations.

### *Diet-Related, Noncommunicable Diseases*

Medical and nutritional experts, especially in industrialized countries, have increasingly recognized

over the last 40 years that certain chronic non-communicable diseases – primarily ischaemic heart disease, hypertension and stroke, non-insulin-dependent diabetes, various forms of cancer and other gastro-intestinal and liver diseases – are closely related to long-term overconsumption or unbalanced consumption, especially of saturated fats. Other influential life-style factors are emotional stress, lack of physical exercise, and tobacco smoking.

WHO undertook an analysis of trends in mortality from diet-related, noncommunicable diseases and attempted to identify, to some extent, the factors responsible for increases and decreases. WHO scientists reviewed data from 42 countries, 26 of which are categorized as developed and 16 as developing, from the period 1960 to 1989.

Collectively, these illnesses are responsible for more than 70 per cent of deaths in developed countries, along with a growing number of deaths in the developing world.

In people aged 65 years and over, in the 42 countries for which data are available over a 25 year period, 20 countries showed increases ranging up to 160 per cent in death rates from these diet-related and life-style related causes. The biggest decreases, on the other hand, were among developed countries (Australia, Canada, Japan, and the United States of America), which have made vigorous educational efforts to influence dietary intakes, especially with limitation of fat, saturated fat and salt intakes, as well as other concurrent changes in life-style (increased exercise, reduced smoking) and medical care.

Cardiovascular diseases (CVDs) are the leading cause of death in the world, accounting for roughly 24 per cent (12 million) of the annual deaths worldwide. Related to obesity and the amount of saturated fat in the diet, as well as to other aspects of life-style, notably smoking and lack of exercise, CVDs account for 47 per cent of all deaths in developed countries, but just 17 per cent of deaths in developing nations, where diets high in fats, sugar and salt, and modern life-styles have not yet become widespread.

Obesity increases the risk of high blood pressure, stroke, diabetes and coronary heart disease. In developed nations, 7 to 15 per cent of adults of 40 years of age are obese. Obesity is also an increasing problem in the developing world, particularly among the poor in middle-income countries and among the elite in low-income nations. Non-insulin-dependent diabetes is by far the most common type of diabetes and is closely related to obesity and CVD. An apparent epidemic

of diabetes is occurring in adults throughout the world. This trend appears to be strongly related to life-style and socioeconomic change, with people in developing countries and minority or disadvantaged communities in industrialized nations facing the greatest risk.

Cancer is the second most frequent cause of death in developed countries, after CVD. A review of evidence indicates that there are associations between dietary components and various types of cancer; for instance, a high intake of total and saturated fat is associated with increased risk of cancer of the colon, prostate and breast.

### *Protein-Energy Malnutrition*

The global assessment background document, jointly produced by WHO and FAO, presents data on food availability for the period 1988–1990, showing that an estimated 786 million people in developing countries were chronically undernourished. This represents an improvement over the previous 20 years, but the figure is still unacceptably high.

Eleven countries still have dietary energy supplies below 2000 kilocalories per person per day, which is quite inadequate to meet their needs. Hunger and malnutrition are inevitable among many of the 123 million people living in these countries where the food situation is so critical.

Some 192 million children under five years of age suffer from protein-energy malnutrition, which is characterized by retardation of physical growth, and also lowers resistance to infections, resulting sometimes in death. The majority – 155 million – of these underweight children are in South Asian countries.

The prevalence of underweight status among children under five is also currently highest in South Asia (62 per cent), with a world average of 40.8 per cent. Globally, the prevalence declined from 47.5 per cent in 1975 to 40.8 in 1990, and is expected to reach 37.8 per cent by the year 2005. Declines in prevalence are occurring in all regions and sub-regions of the world. The numbers of malnourished children are therefore declining in all regions, except Africa. The numbers in sub-Saharan Africa increased from 17.4 million in 1975 to 25.4 million in 1990, and are expected to reach 35 million by 2005.

### *Micronutrient Deficiencies*

Micronutrients are the minerals and vitamins, especially iron, iodine and Vitamin A, that are vital for good health and growth.

Some 2000 million people world-wide are affected by lack of iron, most of them women and children of pre-school age. Childhood anaemia can retard physical growth, retard development of cognitive abilities, and lessen resistance to infections.

In women, anaemia is an important predisposing factor for unacceptably high maternal mortality in many developing countries. It can also deepen infections before, during and after childbirth and can lead to intra-uterine growth retardation, low birth weight and increased rates of perinatal mortality.

Some 1000 million people in 95 countries are at risk of this deficiency, especially those living in mountainous or flood-prone areas where soil lacks iodine. More than 200 million people suffer from goitre, a swelling of the thyroid gland in the neck caused by a lack of iodine. It has also caused 26 million cases of mental retardation and 6 million cases of cretinism. More than half of the victims live in China and India. Iodine deficiency can be eliminated simply by addition of iodine to domestic salt.

Some 250 000 to 500 000 children go blind every year because of this deficiency, with two-thirds of them dying shortly thereafter, especially in Bangladesh, India, Indonesia and parts of Africa. Some 190 million children in all are at risk in Asia, Africa and Latin America. The condition occurs mostly in areas where consumption of yellow fruit and dark green, leafy or yellow vegetables, and sometimes fat intake, is low. It also contributes to decreased physical growth, to increased severity of infections, and to raised mortality rates in infants and young children.

The nutritional status of children in developing countries is usually poorest during the weaning period, from six months to about two years of age. Mortality rates for children under five are about six times higher in developing than in developed countries and for the least developed countries, ten times higher. In these countries about half of all deaths occur before five years of age, and malnutrition underlies the majority of these deaths. The commonest cause is diarrhoeal disease. These and other infections are major factors precipitating or aggravating malnutrition.

WHO scientists estimate that up to 70 per cent of all cases of diarrhoea are food-borne in origin. There are 1500 million episodes of diarrhoea annually in children under five years of age, killing three million of them. Food-borne diseases are a significant health problem for adults as well, especially among the elderly and immuno-suppressed individuals, for example patients with cancer or AIDS.

World Health Organization, Geneva