

Malnutrition

WHO

Malnutrition is a major health problem, especially in developing countries. Water supply, sanitation and hygiene, given their direct impact on infectious disease, especially diarrhoea, are important for preventing malnutrition. Both malnutrition and inadequate water supply and sanitation are linked to poverty. The impact of repeated or persistent diarrhoea on nutrition-related poverty and the effect of malnutrition on susceptibility to infectious diarrhoea are reinforcing elements of the same vicious circle, especially amongst children in developing countries.

The disease and how it affects people

Malnutrition essentially means “bad nourishment”. It concerns not enough as well as too much food, the wrong types of food, and the body's response to a wide range of infections that result in malabsorption of nutrients or the inability to use nutrients properly to maintain health. Clinically, malnutrition is characterized by inadequate or excess intake of protein, energy, and micronutrients such as vitamins, and the frequent infections and disorders that result.

People are malnourished if they are unable to utilize fully the food they eat, for example due to diarrhoea or other illnesses (secondary malnutrition), if they consume too many calories (overnutrition), or if their diet does not provide adequate calories and protein for growth and maintenance (undernutrition or protein-energy malnutrition).

Malnutrition in all its forms increases the risk of disease and early death. Protein-energy malnutrition, for example, plays a major role in half of all under-five deaths each year in developing countries (WHO 2000). Severe forms of malnutrition include marasmus (chronic wasting of fat, muscle and other tissues); cretinism and irreversible brain damage due to iodine deficiency; and blindness and increased risk of infection and death from vitamin A deficiency.

Nutritional status is compromised where people are exposed to high levels of infection due to unsafe and insufficient water supply and inadequate sanitation. In secondary malnutrition, people suffering from diarrhoea will not benefit fully from food because frequent stools prevents adequate absorption of nutrients. Moreover, those who are already experiencing protein-energy malnutrition are more susceptible to, and less able to recover from, infectious diseases.

The cause

Individual nutritional status depends on the interaction between food that is eaten, the overall state of health and the physical environment. Malnutrition is both a medical and a social disorder, often rooted in poverty. Combined with poverty, malnutrition contributes to a downward spiral that is fuelled by an increased burden of disease, stunted development and reduced ability to work. Poor water and sanitation are important determinants in this connection, but sometimes improvements do not benefit the entire population, for example where only the wealthy can afford better drinking-water supplies or where irrigation is used to produce export crops. Civil conflicts and wars, by damaging water infrastructure and contaminating supplies, contribute to increased malnutrition.

Scope of the Problem

Chronic food deficits affect about 792 million people in the world (FAO 2000), including 20% of the population in developing countries. Worldwide, malnutrition affects one in three people and each of its major forms dwarfs most other diseases globally (WHO, 2000). Malnutrition affects all age groups, but it is especially common among the poor and those with inadequate access to health education and to clean water and good sanitation. More than 70% of children with protein-energy malnutrition live in Asia, 26% live in Africa, and 4% in Latin America and the Caribbean (WHO 2000).

Interventions

Interventions that contribute to preventing malnutrition include :

- Improved water supply, sanitation and hygiene.
- Health education for a healthy diet.
- Improved access, by the poor, to adequate amounts of healthy food.
- Ensuring that industrial and agricultural development do not result in increased malnutrition.