



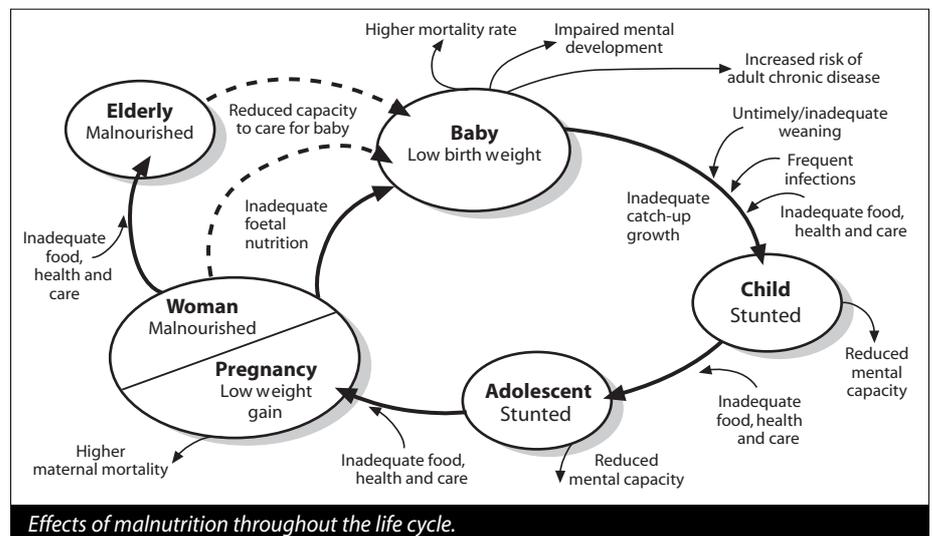
# The spectrum of malnutrition

## KEY FACTS

- One in every five people in the developing world is chronically undernourished, a total of 777 million individuals.
- To reach the World Food Summit goal of reducing hunger by half by 2015, the number of hungry people needs to fall by 22 million a year. Currently it is falling by only 6 million a year.
- Fifty-five percent of the 12 million child deaths each year are related to malnutrition.
- More than 2 000 million people suffer from micronutrient deficiencies:
  - Anaemia: 2 000 million people, of whom 52 percent are pregnant women and 39 percent are children under five
  - Iodine deficiency: 740 million people
  - Vitamin A deficiency: 100-140 million children
  - Stunting: 177 million children
  - Low birth weight: about 17 percent of infants and up to 50 percent in some of the least developed countries
- The global loss in social productivity caused by cumulative micronutrient deficiencies amounted to 46 million years of productive life in 1990 alone.

*Nearly 30 percent of the world's population suffer from some form of malnutrition. Those who do not get enough energy or key nutrients cannot sustain healthy, active lives. The result is devastating illness and death, as well as incalculable loss of human potential and social development. At the same time, hundreds of millions suffer from diseases caused by excessive or unbalanced diets. More than half the world's disease burden can be attributed to hunger, unbalanced energy intake or vitamin and mineral deficiencies – and developing nations are quickly joining the ranks of countries dealing with severe health issues at both ends of the nutritional spectrum.*

## RANGE OF MALNUTRITION



Source: SCN Publications

Hunger, which afflicts one in five of the developing world's people, is a profound impediment to the advancement of individuals and societies. Without proper intervention, undernutrition and the death and disease it causes are repeated with each generation.

The hungry suffer in silence and are often invisible: to the casual observer, many of them show no outward sign of the severity of their hunger.

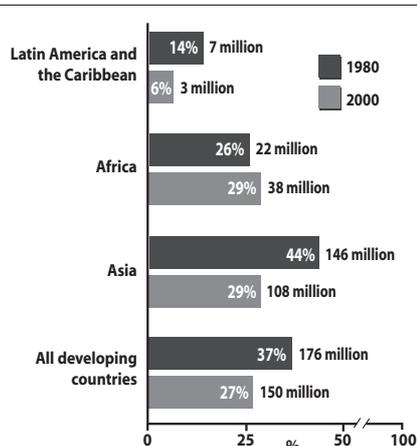
Chronic hunger increases susceptibility to disease and leaves people feeling weak and lethargic, reducing their ability to work. This is reflected in economies and contributes to a devastating cycle of household hunger and poverty. Vitamin and mineral deficiencies in children lead to stunted growth, blindness and compromised mental development. Iron-deficiency anaemia contributes to 20 percent of maternal deaths in Africa and Asia.

Malnutrition, however, is not limited to the poor, nor is overnourishment a "luxury" of the wealthy. Poor nutrition crosses

economic lines and leads to health problems caused by eating too little (undernourishment), too much (overnourishment) or an unbalanced diet that lacks essential nutrients for a healthy life (micronutrient deficiencies).

High energy intake, poor dietary habits and faulty metabolism lead to an entirely different set of problems. Obesity and chronic diseases such as heart disease, diabetes and hypertension are quickly becoming a social and economic burden in developing countries. Recent evidence also suggests that susceptibility to these diseases may be linked to undernutrition during pregnancy and early childhood.

While the specific health consequences vary, both the underweight and the overweight share high levels of sickness and disability, shortened life spans and diminished productivity. The result is that developing nations, their resources already stretched to the limit, must now cope increasingly with serious health issues at both ends of the nutritional spectrum.



Number and percentage of underweight children in developing nations.

Source: UN/ACC/SCN

## WOMEN AND CHILDREN: THE MOST VULNERABLE

Women are a critical link, biologically and socially, in the well-being of households and communities, and they are often more vulnerable than men to malnutrition. Although women, being smaller, need less dietary energy, they require the same amount or more of many nutrients, so they must eat a higher proportion of nutrient-rich foods.

Pregnant women need an additional 300 kcal per day; this increases to 500 kcal daily while breastfeeding. Malnutrition puts women at greater risk of complications and death during pregnancy and childbirth. Pregnancy-related factors are the leading cause of death for young women of 15 to 19 years old. These adolescents, whose bodies have not finished growing and who are often nutrient deficient themselves, face a 20 to 200 percent greater risk of dying than mothers aged 20 to 24.

Malnutrition also threatens their babies. More than half of the annual 12 million deaths of children under five are related to malnutrition, often due to the mother's poor nutrition during pregnancy. Evidence shows that infant mortality rates for children of very young mothers are higher – sometimes twice as high – than for children born to older mothers.

Because children are one of the most vulnerable segments of the population, their health status is usually a good indicator of the health of a community. In particular, they are usually the first victims of micronutrient deficiencies. Each year up to 500 000 children become partially or totally blind due to vitamin A deficiency. It also increases susceptibility to disease, retards growth and development, and is associated with increased death rates from

measles, diarrhoea and respiratory diseases.

Iodine deficiency is the single most important cause of preventable brain damage in children, and also increases the incidence of miscarriages, stillbirths and maternal deaths. There are more than 16 million cretins and nearly 49.5 million people suffering from brain damage caused by iodine deficiency.

The good news is that micronutrient deficiencies are easily prevented and corrected with proper diet, fortified foods and supplements. Worldwide, 70 percent of salt is now iodized. This has reduced the number of babies born cretins each year by more than half since 1990 – to less than 55 000. Vitamin A supplementation saved the lives of at least 300 000 young children in developing countries in 1997 alone.

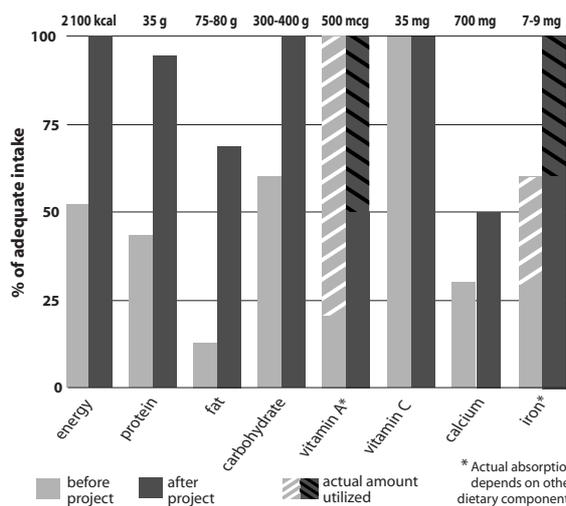
### SUCCESS STORY BETTER DIETS IN ZAMBIA

A recent diet study in Zambia's Luapula Valley found serious seasonal hunger and lack of foods essential to healthy growth. Nearly 60 percent of children under five were stunted.

One of the children was seven-year-old Mumba Mwansa. While his diet in the dry season was better, during the wet season he subsisted mainly on root crops, mangoes and a relish of vegetables and groundnut flour. A seven-year-old boy needs about 1 800 calories a day, but his diet on many days provided fewer than 1 200 calories.

One year later, a cooperative project between FAO and the Zambian Government has made a big difference. Mumba's parents have received improved seed varieties and have joined a self-help group, which has enabled them to purchase higher-yielding varieties and learn improved agricultural techniques.

As a result, food supplies are more consistent year-round, and the family's harvest now provides a small surplus to sell. Mumba, now eight years old, benefits from a better diet, although still short of fat and some micronutrients.



This chart compares Mumba's former and current diet.

Source: FAO

## OBESITY: A GROWING CONCERN

Conditions such as obesity that have traditionally been associated with cultures of plenty are increasing in developing countries. For the first time in history, the number of overweight people rivals the number of underweight worldwide. In Colombia, 41 percent of the population are overweight; in Brazil, 36 percent. In China, the share of overweight adults jumped by more than half between 1989 and 1992. In Namibia, 21 percent of women are

overweight; in Zimbabwe, more than 23 percent.

Although often considered a symbol of wealth and abundance, obesity is usually a sign of poor nutrition. As populations move from rural to urban environments, diets change and lifestyles become more sedentary. Diets of legumes, grains and roots give way to those higher in fat and sugar. This leads to obesity, and with it increased risk of heart disease, hyperten-

sion, stroke, diabetes and certain cancers. The result is a tragic irony: countries still struggling to feed many of their people are now facing the costs of treating obesity and the serious chronic diseases related to it. As developing nations move forward, they need to educate their people about eating the right foods – not just more food – to avoid what could be a crushing economic and social burden in the next 15 to 20 years.

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