

IV. UNDERWEIGHT PREVALENCE AMONG PRESCHOOL CHILDREN

International goals

Countries ... should make every effort to eliminate the adverse effects of poverty on children and youth, including malnutrition and preventable diseases. (para. 6.8 of ICPD Programme of Action).

... by the year 2000, a reduction of severe and moderate malnutrition among children under 5 years of age by half of the 1990 level (para. 36(f) of WSSD Programme of Action).

... promote and ensure household and national food security, ... including a reduction worldwide of severe and moderate malnutrition among children under the age of 5 by one half of 1990 levels by the year 2000, giving special attention to the gender gap in nutrition (para. 106(w) of FWCW Platform for Action).

The World Health Organization's Global Strategy of Health for All by the Year 2000 established the following goal: at least 90 per cent of the children within a population should have a weight-for-age which corresponds to the reference values by the year 2000. The World Declaration and Plan of Action for Nutrition, adopted at the International Conference on Nutrition (Rome, 1992), the Declaration adopted at the World Summit for Children (1990), and WHO's Ninth General Programme of Work for 1996-2001 also include the goal of reducing severe and moderate malnutrition among children under 5 by half between 1990 and 2000.

DEFINITION

Underweight prevalence among preschool children refers to the percentage of children under 5 years of age who have a weight that is more than two standard deviations below the median weight-for-age of the standard reference population of the United States National Center for Health Statistics (NCHS). The standard reference population is commonly referred to as the NCHS/WHO international reference population.

RECENT SITUATION

Malnutrition is usually the result of a combination of inadequate dietary intake and infection. Malnourished children are more likely to die as a result of common childhood diseases, to have lifetime disabilities and weakened immune systems, and to lack a full capacity for learning. UNICEF estimates that malnutrition contributes to more than half of the nearly 12 million under-5 deaths in developing countries each year (UNICEF, 1997).

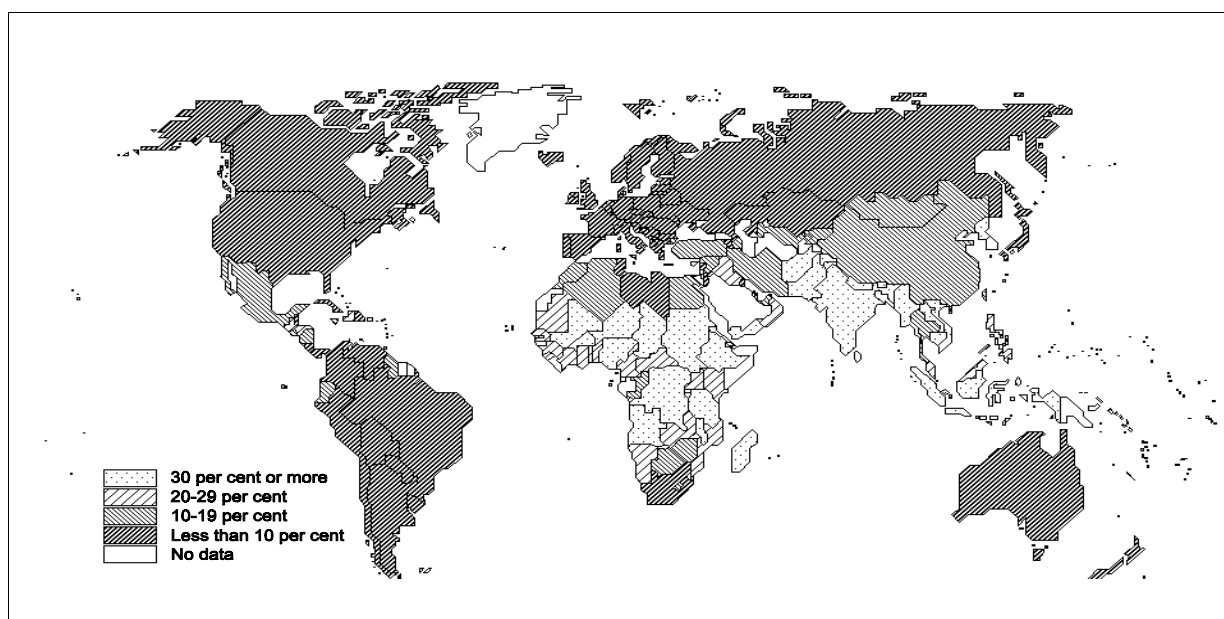
Percentage *underweight*, or low weight-for-age, is the most widely cited of three interrelated indicators commonly used to assess the nutritional status of young children. Low height-for-age, which is termed *stunting*, reflects chronic undernutrition, while low weight-for-height, or *wasting*, reflects acute nutritional problems. The percentage underweight is a composite of the latter two aspects of undernutrition; a child with low weight-for-age may be either short or thin.

National data on underweight prevalence are available for 116 countries. As shown in figure IV.1 and table IV.1, around 30 per cent of countries have underweight prevalence of less than 10 per cent, whereas one fourth have rates of 30 per cent and higher. Two thirds of the countries in Latin America and the Caribbean have low underweight prevalence (less than 10 per cent) as do the few countries in more developed regions with available data. Comparing regional data, Asia and Oceania have the highest prevalence rates with almost 40 per cent of the countries in that region falling in the highest prevalence category. About one third of the African countries have a prevalence rate of 30 per cent or higher and 40 per cent have a rate of between 20 and 29 per cent. In none of the least developed countries is the prevalence rate below 10 per cent.

Underweight among children is one area where the worst cases of deprivation are seen in Asia and Oceania rather than in Africa (fig. IV.2). UNICEF (1997) has explored several causal factors of child malnutrition, which include poverty, disease and inadequate dietary intake, discrimination and violence against women, and a lack of access to good education. Although it is clear that the high prevalence rates among populous countries such as Bangladesh, India and Pakistan contribute to the poorer performance of the Asian and Oceanic region, it remains unclear which causal factors are most responsible for the high prevalence in those countries.

In terms of population, about one third of the under-5 population in less developed regions is estimated to be underweight (fig. IV.3).

Figure IV.1. Underweight prevalence among preschool children, 1990-1998



Sources: World Health Organization, *WHO Global Database on Child Growth and Malnutrition* (Geneva, 1997) and updates from the database; UNICEF, *The State of the World's Children, 2000* (New York, Oxford University Press, 2000).

NOTE: Estimates are not presented for countries or areas with populations under 150,000. Countries from the more developed regions are assumed to have underweight prevalence among children of less than 10 per cent.

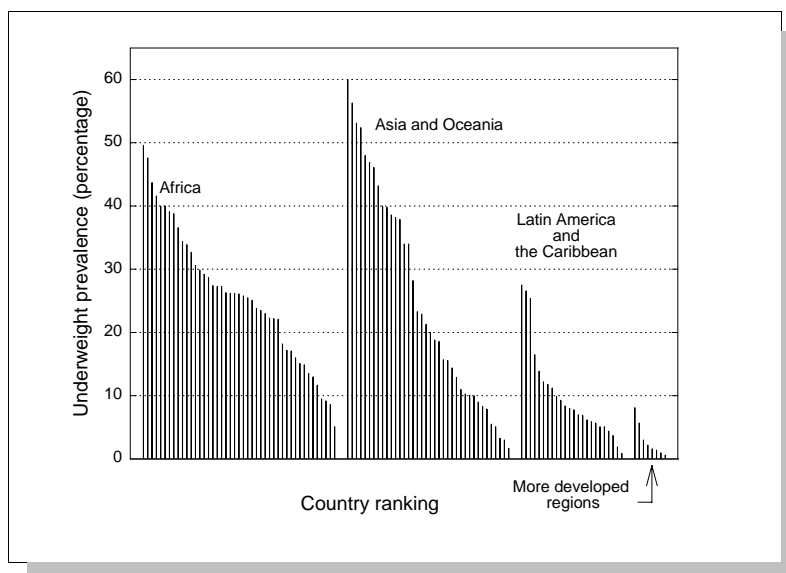
Table IV.1. Distribution of countries according to underweight prevalence among preschool children, 1990-1998

	Percentage of countries with underweight prevalence of:					Number of countries	
	Less than 10 per cent	10-19 per cent	20-29 per cent	30 per cent or more	Total	With data available	Total
World	30	22	22	25	100	116	184
More developed regions	100	0	0	0	100	9	43
Less developed regions	24	24	24	27	100	107	141
Least developed countries	0	8	36	56	100	39	45
Africa	7	22	40	31	100	45	53
Asia and Oceania ^a	21	26	13	39	100	38	57
Latin America and the Caribbean	63	25	13	0	100	24	31

Sources: World Health Organization, *WHO Global Database on Child Growth and Malnutrition* (Geneva, 1997) and updates from the database; UNICEF, *The State of the World's Children, 2000* (New York, Oxford University Press, 2000).

NOTE: Excludes countries and areas with populations under 150,000. Includes 7 countries with data earlier than 1990. Due to rounding, the sum of the subcategories may not be equal to 100 per cent.

^a Excluding Japan, Australia and New Zealand, which are included in the more developed regions.

Figure IV.2. Underweight prevalence among preschool children, 1990-1998, by country ranking and region

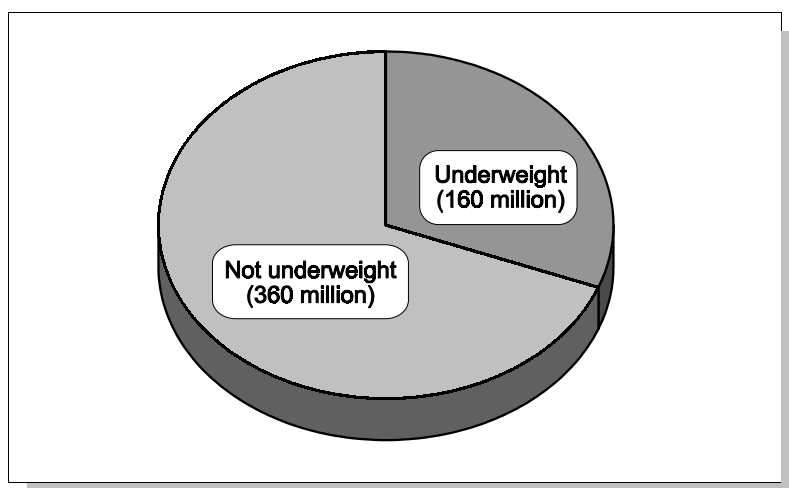
Sources: World Health Organization, *WHO Global Database on Child Growth and Malnutrition* (Geneva, 1997) and updates from the database; UNICEF, *The State of the World's Children, 2000* (New York, Oxford University Press, 2000).

NOTE: Bars show level of underweight prevalence for individual countries. Includes 7 countries with data earlier than 1990.

Figure IV.3. Distribution of population under-5 in the less developed regions, by underweight prevalence, 1990-1998

Sources: World Health Organization, *WHO Global Database on Child Growth and Malnutrition* (Geneva, 1997) and updates from the database; UNICEF, *The State of the World's Children, 2000* (New York, Oxford University Press, 2000).

NOTE: For countries with data on underweight prevalence, representing 97 per cent of the under-5 population of the less developed regions.



SOURCES OF DATA, COVERAGE AND QUALITY

Most of the representative national data on children's nutritional status are derived from sample surveys, which are often carried out in collaboration with one of several international survey programmes, including the Demographic and Health Surveys (DHS), funded by USAID; the UNICEF-supported Multiple Indicator Cluster Surveys (MICS); the PAPCHILD Surveys sponsored by the Pan-Arab League and UNFPA; and the World Bank-sponsored LSMS and SDA surveys in sub-Saharan Africa. These special data collection efforts are largely responsible for the availability of recent data for a large number of developing countries. Recent data are available for 116 countries (63 per cent of the countries included in the present report, representing about 90 per cent of the under-5 population). About 70 per cent of the observations pertain to 1995 or later; only 6 per cent are for dates earlier than 1990. In most of the more developed countries, data on children's nutritional status have not been presented with reference to the NCHS/WHO standard and/or have not been compiled at the national level. Thus, comparable data are available only for a few countries. Data availability is best for Africa with a country coverage of 85 per cent. Data are available for 67 per cent of countries in Asia and Oceania and for 77 per cent of those in Latin America and the Caribbean.

In order to calculate this indicator, a national or international reference population may be used. A WHO working group has recommended that the best available data for the reference population have been established by NCHS. This standard may be used for children up to 5 years of age, since the influence of ethnic or genetic factors on height and weight of young children is considered insignificant.

The age ranges of children covered by the statistics vary by country. For example, although most often the data are for children aged under 5 years, for some countries the figures are for children 3 or 4 years of age and younger. In some countries, the age of children is difficult to determine precisely. In addition, a few of the surveys included here did not cover all regions of the country. However, such differences in geographic and age coverage are not likely to affect seriously the comparability of the statistics presented here.

Data are compiled by the WHO and UNICEF, and published in the *WHO Global Database on Child Growth and Malnutrition* and *The State of the World's Children*.

FOR FURTHER INFORMATION

Director
Division of Evaluation, Policy and Planning
United Nations Children's Fund
633 Third Avenue
New York, NY 10016
United States of America
Facsimile: 1-212-824-6497/6491/6490
Internet: <http://www.unicef.org/status/>

Department of Nutrition for Health and Development
World Health Organization
CH-1211 Geneva 27
Switzerland
Facsimile: (41-22) 7914158
Internet: <http://www.who.int/nutgrowthdb>

REFERENCES

- de Onis, Mercedes, and others (1993). The worldwide magnitude of protein-energy malnutrition: an overview from the WHO Global Database on Child Growth. *Bulletin of the World Health Organization*, vol. 71, No. 6, pp. 703-712.
- UNICEF (2000). *The State of the World's Children, 2000*. New York: Oxford University Press.
- United Nations (1996). *Indicators of Sustainable Development: Framework and Methodologies*. Sales No. E.96.II.A.16.
- WHO (1997). *WHO Global Database on Child Growth and Malnutrition*. Geneva. WHO/NUT/97.4.