2 PEOPLE

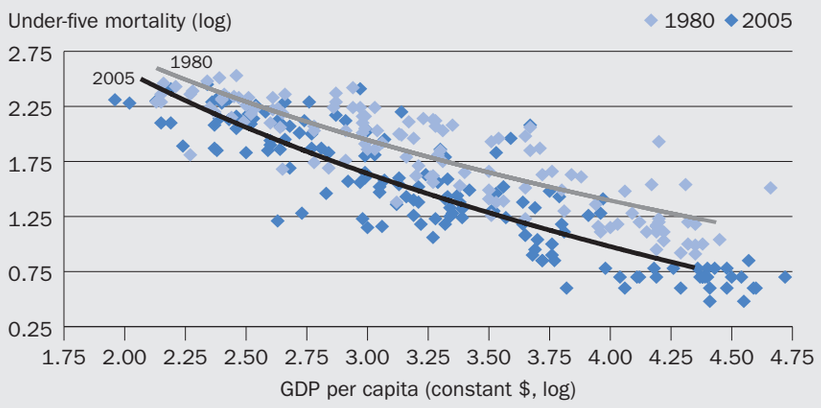
The wide health divide

Advances in technology and knowledge for health and hygiene have transformed life over the past 50 years. In 1960 more than 20 percent of children in developing countries died before reaching their fifth birthday; by 2005 this had fallen to just over 8 percent. The declines are large, even for the poorest countries (figure 2a). But this reassuring picture, painted by rising global averages, obscures substantial disparities among the world's regions and among the poor within countries. For millions of people health services and modern medicines are still out of reach, and many die prematurely from diseases that are easily prevented or cured. More than 25 years after the Health for All declaration, improving the health of the poorest people in developing countries remains a challenge.

What can improve all this? There is no consensus on which determinants are most important across countries. But there is agreement on the need to reduce extreme income poverty, the major risk for poor health and premature death. The World Health Organization (WHO) concurs, noting that a poverty-oriented health strategy requires complementary policies in other sectors (WHO 2003). These include improving access to education, enhancing the position of women and other marginalized groups, shaping development policies in agriculture and rural development, and promoting open and participatory governance.

Priorities in healthcare are also clear: focus on health problems and diseases that affect the poor disproportionately. Health gains require directing program benefits toward the poor and increasing the quality and availability of health services, especially where they are least available. This section looks at the rich-poor health divide between and within countries—and at the factors behind that divide.

Child mortality has fallen in the past 25 years for countries at all incomes **2a**



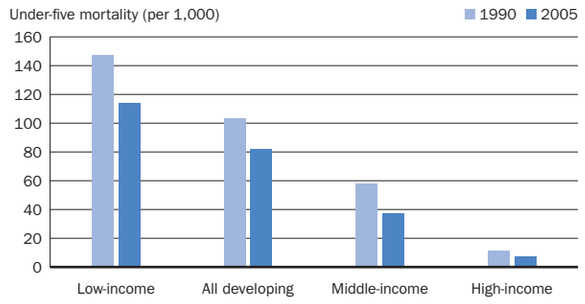
Source: World Bank estimates.

The divide between rich and poor countries

Differences in the health of rich and poor countries remain large and in some cases are increasing. Under-five mortality fell more than 36 percent in high-income countries from 1990 to 2005, but only 20 percent in developing countries, as preventable diseases continue to take a toll on the world's poorest people. But more important than the changes in proportions are the levels: under-five mortality is five times higher in middle-income countries than in high-income countries and 15 times higher in lower-income countries (figure 2b).

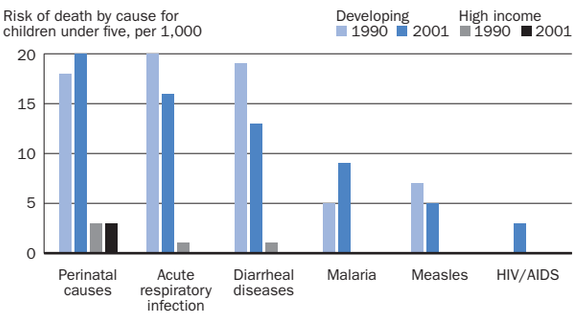
What accounts for these disparities? Child mortality from malaria doubled from 1990 to 2001, with the largest increase in Sub-Saharan Africa (Lopez and others 2006). Other increases in child mortality in developing countries came from HIV/AIDS, again with the largest increase in Sub-Saharan Africa, and problems in the first months of life, which depend strongly on the quality and availability of prenatal services. Child deaths from these causes are far less common in high-income countries, just as they are from acute respiratory infections, diarrheal diseases, and measles. But for developing countries, these diseases, along with malnutrition, remain significant causes of avoidable child deaths (figure 2c).

Under-five mortality is 15 times higher in low-income countries than in high-income countries **2b**



Source: Harmonized estimates from WHO, UNICEF, and World Bank.

Little reduction in risks for poor children **2c**

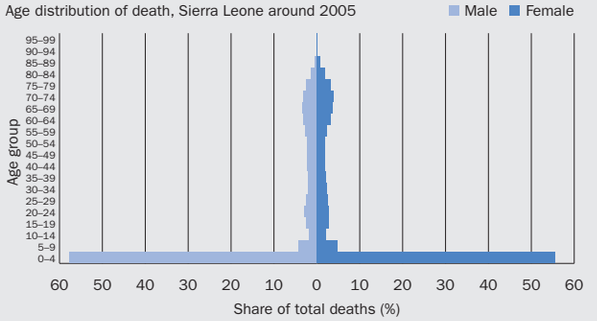


Source: Lopez and others 2006.

The differing patterns of mortality and well-being reflected in the age distributions of death for developing and high-income countries show their impact on life expectancies at birth (figures 2d, 2e, and 2f). In developing countries, where deaths of children under age five are still the major health issue, average life expectancy at birth is 65 years. But several countries—such as Lesotho, Zambia, and Zimbabwe, with high AIDS-related mortality—have life expectancies of less than 40 years. In high-income countries, by contrast, noncommunicable illnesses—such as cardiovascular diseases, diabetes, and related conditions of high blood pressure, high cholesterol, and excessive body weight—cluster deaths at older ages, and the average life expectancy at birth is 79 years. Indeed, in Canada, France, Japan, Norway, Sweden, and Switzerland life expectancies of 80 years and above are the norm. So any efforts to improve health and increase life expectancy in developing countries will have to focus on diseases that kill children.

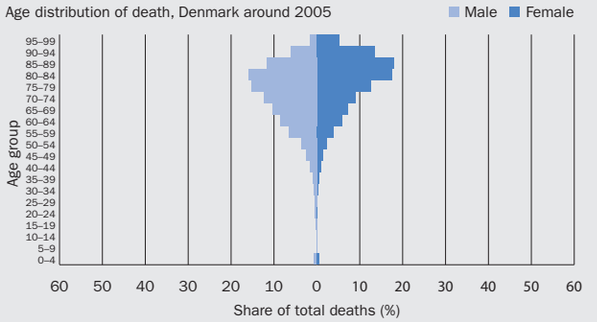
Why are there health gaps between rich and poor countries? Poverty makes people in developing countries more vulnerable to disease. Nearly a third of the people in South Asia and half those in Sub-Saharan Africa lived on less than $1

In Sierra Leone most deaths occur before age 5 **2d**



Source: World Bank 2006f.

A child born in Denmark can expect to live to be 78 **2e**

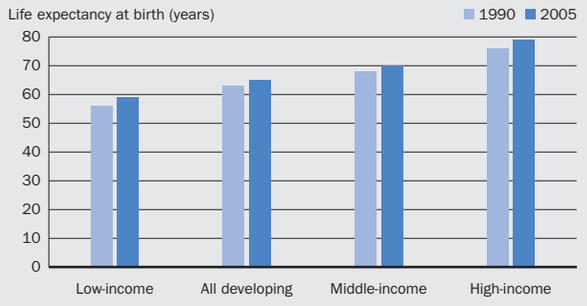


Source: World Bank 2006f.

a day in 2002. The majority of them typically lack access to safe drinking water and adequate sanitation, food, education, employment, health information, and professional healthcare. Almost half the people in Sub-Saharan Africa cannot obtain essential drugs (Jamison and others 2006). Many developing countries experienced little increase in immunization coverage between 1990 and 2005, and in 2005 only 75 percent of children ages 12–23 months were vaccinated against measles and diphtheria, pertussis, and whooping cough, compared with almost 95 percent for high-income countries.

Several barriers beyond low income exclude people in developing countries from getting appropriate care, and these can be related to services, clients, and institutions. Service factors include the high cost of care and transportation, poor quality and inappropriate care, and negative staff attitudes. Client factors include social and cultural constraints on women's movements and limited information about their health needs and availability of services. And institutional factors include men's control over decisionmaking and budgets, local perceptions about illness and treatment norms, and discrimination in health settings.

A health gap becomes a life gap **2f**



Source: World Bank estimates.

Health inequalities by social, cultural, and geographic factors **Box 2g**

Inequalities in health go beyond income to such sociocultural, demographic, and geographic factors as sex, race, religion, ethnic group, language, and residence. In parts of India and China infant girls are more likely to die than infant boys because the cultural preference for male children puts girls at a disadvantage in nutrition and healthcare early in life. Women and girls also face discrimination in healthcare because cultural norms restrict them from traveling long distances, especially alone.

Poor communities—rural, remote, and in urban slums—typically face multiple health risks related to gaps in infrastructure, services, and trained personnel. For example, ethnic minorities, especially in isolated regions in Bangladesh, were less likely to be vaccinated for childhood diseases.

Source: Carr 2004; Ashford, Gwatkin, and Yazbeck 2006.

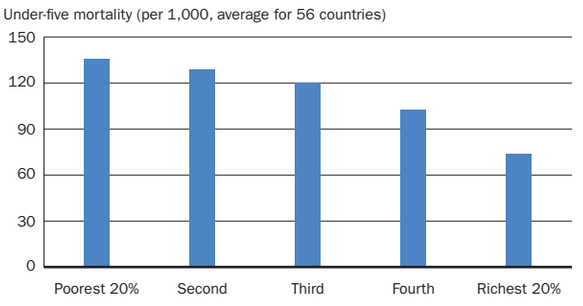
The health divide within countries: the rich-poor gap

Inequalities in health within countries are pervasive. Even in healthy countries such as Finland, the Netherlands, and the United Kingdom, the poor die 5–10 years before the rich (Carr 2004). But the inequalities are most apparent in poorer developing countries. Studies from many developing countries show that the poorest 20 percent of the population fares far worse than the richest 20 percent on a range of health outcomes, including child mortality and nutritional status (box 2g, figures 2h and 2i). On average a child in the poorest 20 percent is twice as likely to die before age 5 as a child in the richest 20 percent. The disparity is similar for maternal nutrition, with women in the poorest 20 percent almost twice as likely to be malnourished as those in the richest 20 percent.

Severe malnutrition among children reveals more pronounced inequality, with children in the poorest 20 percent more than three times as likely to be underweight as children in the richest 20 percent. The inequality is largest in South Asia, where 21 percent of children in the poorest 20 percent were underweight, compared with 6 percent in the richest.

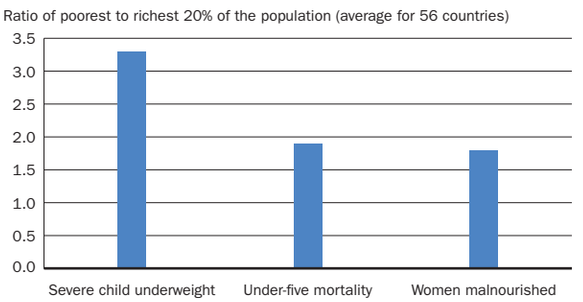
Demographic and Health Surveys find that gaps in the use of health services are closely related to economic

Under-five mortality falls with rising income **2h**



Source: Gwatkin and others 2007.

Health inequalities in developing countries **2i**



Source: Gwatkin and others 2007.

status (box 2j and figure 2k). On average, children ages 12–23 months in the richest 20 percent of the population are more than twice as likely as those in the poorest 20 percent to have received basic immunizations. Inequality in immunization is especially high in Sub-Saharan Africa: only 32 percent of children in the poorest 20 percent have been fully immunized, compared with 60 percent in the richest 20 percent.

Use of professional healthcare during childbirth also varies by income. Rich women are four times more likely to use modern methods of birth control than their poorer counterparts and nearly five times more likely to be attended by a skilled health professional during childbirth. Several countries, such as Benin, Morocco, Nicaragua, and Vietnam, have reduced inequalities and increased the coverage of trained medical staff attending childbirths for the poorest women (figure 2l). Childbirths attended by trained staff among the poorest 20 percent more than doubled in Nicaragua from 1997 to 2001, from 33 percent to 78 percent. In a few countries, such as Chad and Ghana, inequalities increased because of lack of progress in coverage among poor women.

Why do the poor receive and seek less health care than the rich? **Box 2j**

According to *World Development Report 2006: Equity and Development* (World Bank 2005d), inequities occur when some groups of people have less say and fewer opportunities to shape events and institutions around them, resulting in institutions that favor the privileged, who are often the rich. In health this translates into a lower likelihood of the poor taking preventive measures and seeking and using healthcare.

Government actions affect the health of poor people. Public spending on health can influence the type and quality of services available to the poor. Governments may allocate high proportions of their health budgets to urban hospitals, leaving rural residents without adequate health facilities. Income is another important constraint. In South Africa people in the poorest 20 percent have to travel an average of nearly two hours to obtain medical attention, compared with 34 minutes for those in the wealthiest 20 percent.

Additional barriers that lower demand for health services include a lack of knowledge about hygiene, nutrition, and the availability of treatment options, particularly among the uneducated. This can keep people from seeking care when they need it, even when price is not an issue. In India immunization rates are low, even though immunization is free: mothers cited lack of knowledge of the benefits of vaccination and of the clinic location as the main reasons why their children had not been immunized.

Lack of knowledge can also lead people to pay for inappropriate healthcare. Unqualified providers can overprescribe treatment to patients who do not know what is in their best interest. For example, instead of effective and inexpensive oral rehydration therapy, a poor child in Indonesia gets more than four (often useless) drugs per diarrhea episode.

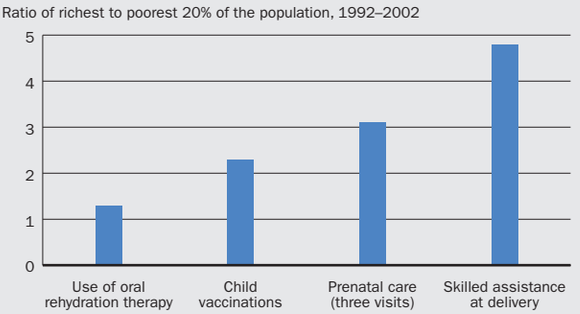
Poorer members of a community often have less say in whether to seek care than wealthier members, and this can affect the level of resources used in their interest. Similarly, within a family, women and children have less voice than men and older family members.

Main determinant of health status: health spending

Differences in health spending contribute to global disparities in health outcomes (figure 2m). In rich countries, total health spending, at 6 percent of GDP, is almost twice that of developing countries, and childhood vaccinations, skilled attendants at birth, and access to effective health interventions are almost universal. In developing countries, where access to free health services is seen as a basic human right, public spending on health is less than 3 percent of GDP. In low-income countries the annual per capita spending on healthcare in 2004 was just $32, well below the $60 that the WHO deems sufficient for an adequately performing health system (WHO, *World Health Report 2000*). By contrast, annual per capita health spending in high-income countries was $3,724.

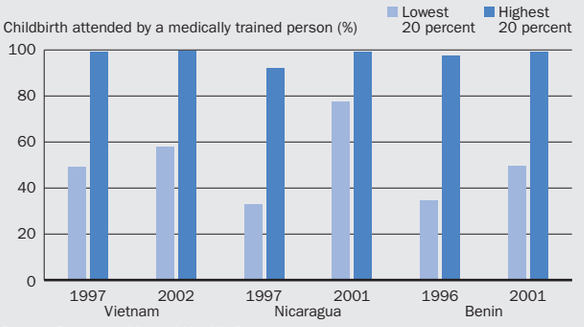
The most obvious barrier to expanding health coverage in developing countries is the current low level of spending. Expanding access to successful interventions will require more funds, a situation made more difficult as HIV/AIDS spreads and more spending is allocated to the treatment of AIDS and AIDS-related opportunistic infections, such as tuberculosis and pneumonia. As public funds for general health shrink, the

Rich people use health services more than poor people **2k**



Source: Ashford, Gwatkin, and Yazbeck 2006.

Some countries have reduced inequalities in use of professional healthcare in childbirth **2l**



Source: Demographic and Health Surveys.

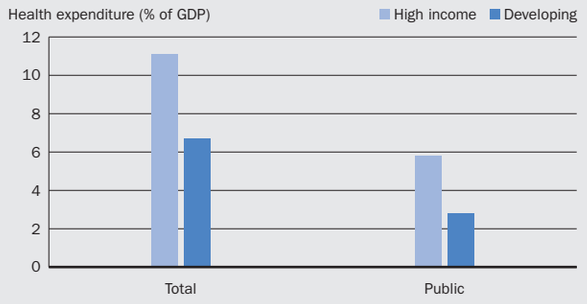
costs are borne more by households and the private sector. In 2004 more than 80 percent of the people in developing countries paid out of pocket for health services, compared with just 37 percent in high-income countries.

Greater public spending is not, however, always associated with better outcomes, and performance varies across countries based on the capabilities of government and health systems. In many countries staff ostensibly delivering services do not, and absenteeism is high (figure 2n). Corruption in the form of informal payments, coupled with the low technical quality of service providers and the poor attitudes of health staff, especially to the poorer population, often discourage a second visit. According to *World Development Report 2006: Equity and Development* (World Bank 2005d), more than 70 percent of patients in Azerbaijan, Poland, and the Russian Federation, and more than 90 percent in Armenia, made "informal payments" for services.

To improve health conditions among the poor and vulnerable in developing countries, governments support free or subsidized health services, often as part of a national policy to reduce poverty. Government spending on health is thus designed to give everyone equal access to care, and this rationale is typically invoked to justify direct government involvement in service provision. In reality, equal access is elusive, and research confirms that publicly financed healthcare benefits the rich more than the poor (figure 2o). In 21 countries the richest 20 percent received more than 26 percent of government health spending, compared with 16 percent for the poorest 20 percent. Even health programs that address illnesses affecting the poor tend to favor the rich. In Sub-Saharan Africa the rich benefited more (53 percent) from prophylactic treatment for malaria than did the poor (34 percent).

Primary healthcare is often free in the public health system, but treatment for major illnesses can be costly if payment is required for drugs and services on top of transport costs and time off from work. Indeed, health shocks can push a high proportion of households into poverty because of out-of-pocket health expenditures (figure 2p). This underscores the need for policymakers to maintain and improve the health status of the poor through effective interventions—and to protect households from falling into poverty.

Differences in healthcare spending contribute to global disparities 2m



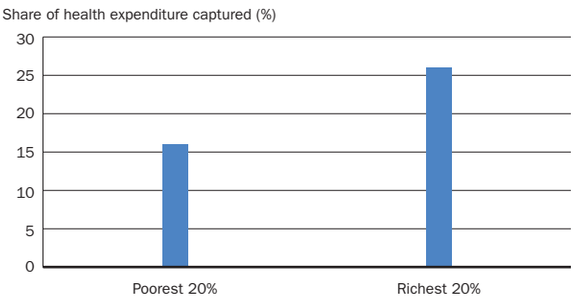
Source: WHO and World Bank.

Where are healthcare workers hiding? 2n

Country	Absence rates among healthcare workers in primary health facilities (%)
India (14 states)	43
Indonesia	42
Bangladesh	35
Uganda	35
Peru	26
Papua New Guinea	19

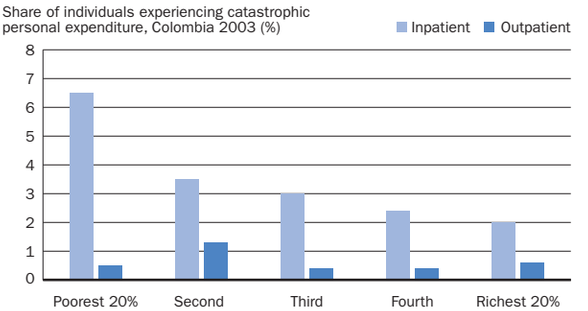
Source: World Bank 2003c.

Public health spending benefits the rich most 2o



Source: Filmer 2003.

Health shocks can push households into poverty 2p



Source: Baeza and Packard 2006.

2.1 Population dynamics

	Total population			Average annual population growth rate		Population age composition			Dependency ratio		Crude death rate	Crude birth rate
		millions		%		Ages 0–14 %	Ages 15–64 %	Ages 65+ %	dependents as proportion of working-age population Young	Old	per 1,000 people	per 1,000 people
	1990	2005	2015	1990–2005	2005–15	2005	2005	2005	2005	2005	2005	2005
Afghanistan	..	..	..	..	..	..	..	..	..	..	..	..
Albania	3.3	3.1	3.2	–0.3	0.4	27.0	64.7	8.3	0.4	0.1	6	13
Algeria	25.3	32.9	38.0	1.7	1.5	29.6	65.8	4.5	0.5	0.1	5	21
Angola	10.5	15.9	20.9	2.8	2.7	46.5	51.1	2.5	0.9	0.0[a]	22	48
Argentina	32.6	38.7	42.5	1.2	0.9	26.4	63.4	10.2	0.4	0.2	8	18
Armenia	3.5	3.0	3.0	–1.1	–0.2	20.8	67.1	12.1	0.3	0.2	8	12
Australia	17.1	20.3	22.3	1.2	0.9	19.6	67.7	12.7	0.3	0.2	6	13
Austria	7.7	8.2	8.3	0.4	0.1	15.5	67.8	16.7	0.2	0.2	9	10
Azerbaijan	7.2	8.4	9.2	1.1	0.9	25.8	67.1	7.1	0.4	0.1	6	17
Bangladesh	104.0	141.8	168.0	2.1	1.7	35.5	60.9	3.6	0.6	0.1	8	26
Belarus	10.2	9.8	9.2	–0.3	–0.6	15.2	70.2	14.7	0.2	0.2	15	9
Belgium	10.0	10.5	10.5	0.3	0.1	16.8	65.6	17.6	0.3	0.3	10	11
Benin	5.2	8.4	11.2	3.3	2.8	44.2	53.1	2.7	0.8	0.1	12	41
Bolivia	6.7	9.2	10.8	2.1	1.7	38.1	57.4	4.5	0.7	0.1	8	29
Bosnia and Herzegovina	4.3	3.9	3.9	–0.7	–0.1	16.5	69.5	14.0	0.2	0.2	9	9
Botswana	1.4	1.8	1.7	1.4	–0.4	37.6	59.0	3.3	0.6	0.1	27	26
Brazil	149.4	186.4	208.8	1.5	1.1	27.9	66.0	6.1	0.4	0.1	7	20
Bulgaria	8.7	7.7	7.1	–0.8	–0.8	13.8	69.4	16.8	0.2	0.2	15	9
Burkina Faso	8.5	13.2	17.3	2.9	2.7	47.2	50.1	2.7	0.9	0.1	16	46
Burundi	5.7	7.5	10.6	1.9	3.4	45.0	52.3	2.7	0.9	0.1	18	45
Cambodia	9.7	14.1	17.1	2.5	1.9	37.1	59.5	3.4	0.6	0.1	10	30
Cameroon	11.7	16.3	20.2	2.2	2.1	41.2	55.1	3.7	0.7	0.1	17	34
Canada	27.8	32.3	34.9	1.0	0.8	17.6	69.3	13.1	0.3	0.2	7	11
Central African Republic	3.0	4.0	4.6	2.0	1.4	43.0	53.0	4.1	0.8	0.1	22	37
Chad	6.1	9.7	12.5	3.2	2.5	47.3	49.7	3.0	1.0	0.1	20	49
Chile	13.2	16.3	17.9	1.4	0.9	24.9	67.0	8.1	0.4	0.1	5	16
China	1,135.2	1,304.5	1,378.1	0.9	0.5	21.4	71.0	7.6	0.3	0.1	6	12
Hong Kong, China	5.7	6.9	7.6	1.3	0.9	14.4	73.6	12.0	0.2	0.2	6	8
Colombia	35.0	45.6	51.5	1.8	1.2	31.0	63.9	5.1	0.5	0.1	5	21
Congo, Dem. Rep.	37.8	57.5	77.9	2.8	3.0	47.3	50.1	2.7	0.9	0.1	20	50
Congo, Rep.	2.5	4.0	5.2	3.2	2.7	47.1	49.9	2.9	0.9	0.1	13	44
Costa Rica	3.1	4.3	5.0	2.3	1.4	28.4	65.8	5.8	0.4	0.1	4	17
Côte d'Ivoire	12.7	18.2	21.6	2.4	1.7	41.9	54.9	3.3	0.8	0.1	17	36
Croatia	4.8	4.4	4.3	–0.5	–0.2	15.5	67.3	17.2	0.2	0.3	11	9
Cuba	10.5	11.3	11.4	0.4	0.1	19.1	70.1	10.8	0.3	0.2	7	11
Czech Republic	10.4	10.2	10.1	–0.1	–0.2	14.6	71.2	14.2	0.2	0.2	11	10
Denmark	5.1	5.4	5.5	0.3	0.2	18.8	66.2	15.0	0.3	0.2	10	12
Dominican Republic	7.1	8.9	10.1	1.5	1.3	32.7	63.1	4.1	0.5	0.1	6	24
Ecuador	10.3	13.2	15.1	1.7	1.3	32.4	61.8	5.8	0.5	0.1	5	22
Egypt, Arab Rep.	55.7	74.0	88.1	1.9	1.7	33.6	61.7	4.8	0.5	0.1	6	26
El Salvador	5.1	6.9	8.0	2.0	1.5	34.0	60.7	5.4	0.6	0.1	6	24
Eritrea	3.0	4.4	5.8	2.5	2.8	44.8	52.9	2.3	0.8	0.0[a]	11	39
Estonia	1.6	1.3	1.3	–1.0	–0.3	15.2	68.3	16.5	0.2	0.2	13	11
Ethiopia	51.2	71.3	86.8	2.2	2.0	44.5	52.5	2.9	0.8	0.1	19	39
Finland	5.0	5.2	5.3	0.3	0.2	17.3	66.8	15.9	0.3	0.2	9	11
France	56.7	60.9	62.4	0.5	0.2	18.2	65.2	16.6	0.3	0.3	9	13
Gabon	1.0	1.4	1.6	2.5	1.5	40.0	55.6	4.4	0.7	0.1	13	30
Gambia, The	0.9	1.5	1.9	3.2	2.2	40.1	56.1	3.7	0.7	0.1	11	34
Georgia	5.5	4.5	4.2	–1.3	–0.7	18.9	66.8	14.3	0.3	0.2	10	11
Germany	79.4	82.5	81.8	0.3	–0.1	14.3	66.9	18.8	0.2	0.3	10	8
Ghana	15.5	22.1	26.5	2.4	1.8	39.0	57.3	3.7	0.7	0.1	10	31
Greece	10.2	11.1	11.2	0.6	0.0	14.3	67.5	18.2	0.2	0.3	9	9
Guatemala	8.9	12.6	15.8	2.3	2.3	43.2	52.5	4.3	0.8	0.1	6	34
Guinea	6.2	9.4	11.8	2.8	2.3	43.7	52.7	3.5	0.8	0.1	13	41
Guinea-Bissau	1.0	1.6	2.1	3.0	2.9	47.5	49.4	3.1	1.0	0.1	19	50
Haiti	6.9	8.5	9.7	1.4	1.3	37.5	58.5	4.0	0.6	0.1	13	30

2.1 Population dynamics

	Total population			Average annual population growth rate		Population age composition			Dependency ratio		Crude death rate	Crude birth rate
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	1990	2005	2015	1990–2005	2005–15	2005	2005	2005	2005	2005	2005	2005
Honduras	4.9	7.2	8.8	2.6	2.0	39.2	56.9	3.9	0.7	0.1	6	28
Hungary	10.4	10.1	9.8	–0.2	–0.3	15.7	69.1	15.2	0.2	0.2	14	10
India	849.5	1,094.6	1,248.5	1.7	1.3	32.1	62.7	5.3	0.5	0.1	8	24
Indonesia	178.2	220.6	244.0	1.4	1.0	28.3	66.2	5.5	0.4	0.1	7	20
Iran, Islamic Rep.	54.4	68.3	78.4	1.5	1.4	28.7	66.8	4.5	0.4	0.1	4	15
Iraq	18.5	..	..	..	..	..	..	..	..	..	..	..
Ireland	3.5	4.2	4.7	1.1	1.1	20.2	68.9	10.9	0.3	0.2	7	15
Israel	4.7	6.9	8.1	2.6	1.5	27.8	62.1	10.1	0.4	0.2	6	21
Italy	56.7	58.6	58.0	0.2	–0.1	14.0	66.0	20.0	0.2	0.3	10	10
Jamaica	2.4	2.7	2.7	0.7	0.3	31.2	61.2	7.6	0.5	0.1	6	16
Japan	123.5	127.8	124.9	0.2	–0.2	14.0	66.3	19.7	0.2	0.3	9	8
Jordan	3.2	5.5	6.7	3.6	2.0	37.2	59.6	3.2	0.6	0.1	3	28
Kazakhstan	16.3	15.1	15.0	–0.5	–0.1	23.1	68.3	8.5	0.3	0.1	10	18
Kenya	23.4	34.3	44.1	2.5	2.5	42.8	54.4	2.8	0.8	0.1	14	39
Korea, Dem. Rep.	19.7	22.5	23.3	0.9	0.3	25.0	68.2	6.8	0.4	0.1	11	15
Korea, Rep.	42.9	48.3	49.2	0.8	0.2	18.6	72.0	9.4	0.3	0.1	5	9
Kuwait	2.1	2.5	3.4	1.2	2.8	24.3	73.9	1.8	0.3	0.0[a]	2	19
Kyrgyz Republic	4.4	5.1	5.7	1.0	1.0	31.5	62.4	6.1	0.5	0.1	7	21
Lao PDR	4.1	5.9	7.3	2.4	2.1	40.9	55.5	3.7	0.7	0.1	12	34
Latvia	2.7	2.3	2.2	–1.0	–0.6	14.7	68.4	16.9	0.2	0.2	14	9
Lebanon	2.7	3.6	4.0	1.8	1.0	28.6	64.0	7.3	0.4	0.1	7	18
Lesotho	1.6	1.8	1.7	0.8	–0.3	38.6	56.2	5.3	0.7	0.1	25	28
Liberia	2.1	3.3	4.4	2.9	2.9	47.1	50.7	2.2	0.9	0.0[a]	20	50
Libya	4.3	5.9	7.0	2.0	1.8	30.1	65.9	4.1	0.5	0.1	4	23
Lithuania	3.7	3.4	3.3	–0.5	–0.5	16.7	67.8	15.5	0.2	0.2	13	9
Macedonia, FYR	1.9	2.0	2.1	0.4	0.2	19.6	69.3	11.1	0.3	0.2	9	11
Madagascar	12.0	18.6	23.8	2.9	2.5	44.0	52.9	3.1	0.8	0.1	12	38
Malawi	9.5	12.9	16.0	2.1	2.2	47.3	49.6	3.0	1.0	0.1	21	43
Malaysia	17.8	25.3	29.5	2.3	1.5	32.4	63.0	4.6	0.5	0.1	5	21
Mali	8.9	13.5	18.0	2.8	2.9	48.2	49.1	2.7	1.0	0.1	17	49
Mauritania	2.0	3.1	4.0	2.8	2.6	43.0	53.6	3.4	0.8	0.1	13	40
Mauritius	1.1	1.2	1.3	1.1	0.7	24.6	68.8	6.6	0.4	0.1	7	15
Mexico	83.2	103.1	114.3	1.4	1.0	31.0	63.7	5.3	0.5	0.1	4	18
Moldova	4.4	4.2	4.1	–0.2	–0.3	18.3	71.6	10.1	0.3	0.1	12	11
Mongolia	2.1	2.6	2.9	1.3	1.2	30.5	65.8	3.8	0.5	0.1	6	18
Morocco	23.9	30.2	34.2	1.5	1.3	31.1	64.1	4.8	0.5	0.1	6	23
Mozambique	13.4	19.8	23.5	2.6	1.7	44.0	52.7	3.3	0.8	0.1	20	39
Myanmar	40.8	50.5	54.9	1.4	0.8	29.5	65.6	4.9	0.4	0.1	9	19
Namibia	1.4	2.0	2.2	2.5	1.0	41.5	55.0	3.5	0.8	0.1	6	22
Nepal	19.1	27.1	32.7	2.3	1.9	39.0	57.3	3.7	0.7	0.1	8	29
Netherlands	15.0	16.3	16.8	0.6	0.3	18.2	67.7	14.1	0.3	0.2	8	12
New Zealand	3.4	4.1	4.4	1.2	0.6	21.3	66.4	12.3	0.3	0.2	7	14
Nicaragua	4.0	5.1	6.2	1.8	1.8	38.9	57.8	3.3	0.7	0.1	5	28
Niger	8.5	14.0	19.2	3.3	3.2	49.0	49.0	2.0	1.0	0.0[a]	20	53
Nigeria	90.6	131.5	160.8	2.5	2.0	44.3	52.7	3.0	0.8	0.1	19	41
Norway	4.2	4.6	4.8	0.6	0.5	19.6	65.4	15.0	0.3	0.2	9	12
Oman	1.8	2.6	3.2	2.2	2.1	34.5	63.0	2.6	0.5	0.0[a]	3	25
Pakistan	108.0	155.8	190.5	2.4	2.0	38.3	57.9	3.8	0.7	0.1	7	26
Panama	2.4	3.2	3.8	2.0	1.5	30.4	63.6	6.0	0.5	0.1	5	22
Papua New Guinea	4.1	5.9	7.0	2.4	1.7	40.3	57.3	2.4	0.7	0.0[a]	10	29
Paraguay	4.2	5.9	7.1	2.2	1.8	37.6	58.7	3.7	0.6	0.1	5	29
Peru	21.8	28.0	32.1	1.7	1.4	32.2	62.5	5.3	0.5	0.1	6	22
Philippines	61.1	83.1	98.7	2.0	1.7	35.1	61.0	3.9	0.6	0.1	5	24
Poland	38.1	38.2	37.6	0.0[a]	–0.2	16.3	70.7	12.9	0.2	0.2	10	9
Portugal	9.9	10.5	10.9	0.4	0.3	15.9	67.0	17.1	0.2	0.3	10	11
Puerto Rico	3.5	3.9	4.1	0.7	0.4	22.3	65.7	12.1	0.3	0.2	8	13

2.1 Population dynamics

	Total population			Average annual population growth rate		Population age composition			Dependency ratio		Crude death rate	Crude birth rate
		millions		%		Ages 0–14 %	Ages 15–64 %	Ages 65+ %	dependents as proportion of working-age population Young	Old	per 1,000 people	per 1,000 people
	1990	2005	2015	1990–2005	2005–15	2005	2005	2005	2005	2005	2005	2005
Romania	23.2	21.6	20.7	–0.5	–0.4	15.4	69.8	14.8	0.2	0.2	12	10
Russian Federation	148.3	143.1	136.0	–0.2	–0.5	15.3	70.9	13.8	0.2	0.2	16	10
Rwanda	7.1	9.0	11.3	1.6	2.2	43.5	54.0	2.5	0.8	0.0[a]	18	41
Saudi Arabia	16.4	23.1	28.9	2.3	2.2	37.3	59.8	2.9	0.6	0.0[a]	4	27
Senegal	8.0	11.7	14.5	2.5	2.2	42.6	54.3	3.1	0.8	0.1	11	36
Serbia and Montenegro	10.5[b]	8.1	8.0[c]	0.1[d]	–0.1[c]	18.3	67.6	14.1	0.3	0.2	14	11
Sierra Leone	4.1	5.5	6.9	2.0	2.2	42.8	53.8	3.3	0.8	0.1	23	46
Singapore	3.0	4.3	4.8	2.4	1.1	19.5	72.0	8.5	0.3	0.1	4	10
Slovak Republic	5.3	5.4	5.4	0.1	–0.1	16.7	71.5	11.8	0.2	0.2	10	10
Slovenia	2.0	2.0	2.0	0.0[a]	–0.2	13.9	70.5	15.6	0.2	0.2	9	9
Somalia	6.7	8.2	11.0	1.4	2.9	44.1	53.3	2.6	0.8	0.0[a]	17	44
South Africa	35.2	46.9	47.3	1.9	0.1	32.6	63.1	4.2	0.5	0.1	21	24
Spain	38.8	43.4	44.4	0.7	0.2	14.3	69.2	16.5	0.2	0.2	9	11
Sri Lanka	17.0	19.6	21.0	1.0	0.7	24.1	68.6	7.3	0.4	0.1	6	18
Sudan	26.1	36.2	44.1	2.2	2.0	39.2	57.2	3.6	0.7	0.1	11	32
Swaziland	0.8	1.1	1.1	2.6	–0.4	41.0	55.5	3.5	0.7	0.1	20	34
Sweden	8.6	9.0	9.3	0.4	0.3	17.5	65.3	17.2	0.3	0.3	10	10
Switzerland	6.7	7.4	7.5	0.7	0.0[a]	16.5	67.6	16.0	0.2	0.2	8	10
Syrian Arab Republic	12.8	19.0	23.8	2.6	2.2	36.9	60.0	3.1	0.6	0.1	3	28
Tajikistan	5.3	6.5	7.6	1.4	1.5	39.0	57.2	3.9	0.7	0.1	7	28
Tanzania	26.2	38.3	47.1	2.5	2.1	42.6	54.2	3.2	0.8	0.1	16	36
Thailand	54.6	64.2	69.0	1.1	0.7	23.8	69.1	7.1	0.3	0.1	7	16
Togo	4.0	6.1	7.8	2.9	2.4	43.5	53.4	3.1	0.8	0.1	12	38
Trinidad and Tobago	1.2	1.3	1.3	0.5	0.2	21.5	71.1	7.4	0.3	0.1	8	14
Tunisia	8.2	10.0	11.0	1.4	1.0	25.9	67.8	6.3	0.4	0.1	6	17
Turkey	56.2	72.1	80.7	1.7	1.1	28.4	65.7	5.9	0.4	0.1	6	19
Turkmenistan	3.7	4.8	5.5	1.8	1.3	31.8	63.6	4.7	0.5	0.1	8	22
Uganda	17.8	28.8	41.8	3.2	3.7	50.5	47.1	2.5	1.1	0.1	15	51
Ukraine	51.9	47.1	42.3	–0.6	–1.1	14.9	69.0	16.1	0.2	0.2	17	9
United Arab Emirates	1.8	4.5	5.6	6.3	2.2	22.0	76.9	1.1	0.3	0.0[a]	1	16
United Kingdom	57.6	60.2	61.7	0.3	0.2	17.9	66.1	16.0	0.3	0.2	10	12
United States	249.6	296.4	322.5	1.1	0.8	20.8	66.9	12.3	0.3	0.2	8	14
Uruguay	3.1	3.5	3.7	0.7	0.5	24.3	62.5	13.2	0.4	0.2	9	15
Uzbekistan	20.5	26.2	30.1	1.6	1.4	33.2	62.1	4.7	0.5	0.1	6	20
Venezuela, RB	19.8	26.6	31.1	2.0	1.6	31.2	63.7	5.1	0.5	0.1	5	22
Vietnam	66.2	83.1	92.1	1.5	1.0	29.5	65.0	5.4	0.5	0.1	6	18
West Bank and Gaza	2.0	3.6	4.9	4.1	3.0	45.5	51.4	3.1	0.9	0.1	4	33
Yemen, Rep.	12.1	21.0	28.4	3.7	3.0	46.4	51.4	2.3	0.9	0.0[a]	8	40
Zambia	8.4	11.7	13.8	2.2	1.7	45.8	51.2	3.0	0.9	0.1	22	40
Zimbabwe	10.6	13.0	13.8	1.4	0.6	40.0	56.4	3.6	0.7	0.1	23	29
World	**5,256.3 s**	**6,437.7 s**	**7,165.8 s**	**1.4 w**	**1.1 w**	**28.1 w**	**64.5 w**	**7.4 w**	**0.4 w**	**0.1 w**	**9 w**	**20 w**
Low income	1,739.4	2,352.4	2,787.8	2.0	1.7	36.4	59.3	4.3	0.6	0.1	10	29
Middle income	2,613.4	3,074.5	3,322.7	1.1	0.8	25.0	67.7	7.3	0.4	0.1	8	16
Lower middle income	2,083.6	2,474.6	2,694.1	1.1	0.8	25.3	67.9	6.9	0.4	0.1	7	16
Upper middle income	529.8	599.8	628.6	0.8	0.5	24.2	66.7	9.1	0.4	0.1	10	16
Low & middle income	4,352.8	5,426.9	6,110.5	1.5	1.2	30.0	64.0	6.0	0.5	0.1	9	22
East Asia & Pacific	1,596.1	1,885.5	2,027.8	1.1	0.7	23.9	69.2	6.9	0.3	0.1	7	15
Europe & Central Asia	466.1	471.8	471.5	0.1	0.0[a]	19.7	68.6	11.8	0.3	0.2	12	13
Latin America & Carib.	437.6	550.8	620.1	1.5	1.2	30.0	63.9	6.1	0.5	0.1	6	20
Middle East & N. Africa	225.5	306.0	365.1	2.0	1.8	33.5	62.3	4.2	0.5	0.1	6	24
South Asia	1,113.1	1,469.8	1,703.4	1.9	1.5	33.4	61.7	4.9	0.5	0.1	8	25
Sub-Saharan Africa	514.4	743.1	922.6	2.5	2.2	43.5	53.4	3.1	0.8	0.1	17	40
High income	903.5	1010.8	1055.3	0.7	0.4	18.2	67.0	14.8	0.3	0.2	8	12
Europe EMU	295.3	313.9	316.7	0.4	0.1	15.5	66.8	17.7	0.2	0.3	9	10

a. Less than 0.05. b. Includes population of Kosovo and Metahia until 1999. c. Projections are based on data for Serbia and Montenegro before it separated into two independent states in 2006. d. Data are for 1990–99.

2.1 Population dynamics

About the data

Population estimates are usually based on national population censuses, but the frequency and quality vary by country. Most countries conduct a complete enumeration no more than once a decade. Estimates for the years before and after the censuses are interpolations or extrapolations based on demographic models. Errors and undercounting occur even in high-income countries; in developing countries such errors may be substantial because of limits in the transport, communications, and other resources required to conduct and analyze a full census.

The quality and reliability of official demographic data are also affected by the public trust in the government, the government's commitment to full and accurate enumeration, the confidentiality and protection against misuse accorded to census data, and the independence of census agencies from undue political influence. Moreover, the international comparability of population indicators is limited by differences in the concepts, definitions, data collection procedures, and estimation methods used by national statistical agencies and other organizations that collect population data.

Of the 152 economies listed in the table, 130 (about 86 percent) conducted a census between 1995 and 2005. The currentness of a census, along with the availability of complementary data from surveys or registration systems, is one of many objective ways to judge the quality of demographic data. In some European countries registration systems offer complete information on population in the absence of a census. See *Primary data documentation* for the most recent census or survey year and for the completeness of registration.

Current population estimates for developing countries that lack recent census-based data, and pre- and post-census estimates for countries with census data, are provided by the United Nations Population Division and other agencies. The standard estimation method requires fertility, mortality, and net migration data, which are often collected from sample surveys, some of which may be small or limited in coverage. The population estimates are the product of demographic modeling and so are susceptible to biases and errors because of shortcomings in the model as well as in the data. Population projections are made using the cohort component method.

The growth rate of the total population conceals the fact that different age groups may grow at very different rates. In many developing countries the population under age 15 was previously growing rapidly but is now starting to shrink. Previously high fertility rates and declining mortality rates are now reflected in the larger share of the working-age population.

Dependency ratios take into account variations in the different age groups: the proportions of children, elderly people, and working-age people in the population. Separate calculations of young-age and old-age dependency suggest the burden of dependency that the working-age population must bear in relation to children and the elderly. But dependency ratios show only the age composition of a population, not economic dependency. Some children and elderly people are part of the labor force, and many working-age people are not.

The vital rates shown in the table are based on data derived from birth and death registration systems, censuses, and sample surveys conducted by national statistical offices and other organizations, or on demographic analysis. The estimates for 2005 for many countries are national projections based on extrapolations of levels and trends measured in earlier years.

Vital registers are the preferred source of these data, but in many developing countries systems for registering births and deaths do not exist or are incomplete because of deficiencies in the coverage of events or of geographic areas. Many developing countries carry out special household surveys that estimate vital rates by asking respondents about births and deaths in the recent past. Estimates derived in this way are subject to sampling errors as well as errors due to inaccurate recall by the respondents.

The United Nations Statistics Division monitors the completeness of vital registration systems. The share of countries with at least 90 percent complete vital registration increased from 45 percent in 1988 to 62 percent in 2005. Still, some of the most populous developing countries—China, India, Indonesia, Brazil, Pakistan, Bangladesh, Nigeria—do not have complete vital registration systems. Between 2003 and 2005, 51 percent of births and deaths and 48 percent of infant deaths worldwide were registered and reported.

International migration is the only other factor besides birth and death rates that directly determines a country's population growth. From 1990 to 2000 the number of migrants in high-income countries increased by 23 million. About 190 million people currently live outside their home country, accounting for about 3 percent of the world's population. Estimating international migration is difficult. At any time many people are located outside their home country as tourists, workers, or refugees or for other reasons. Standards relating to the duration and purpose of international moves that qualify as migration vary, and accurate estimates require information on flows into and out of countries that is difficult to collect.

Definitions

• **Total population** of an economy includes all residents regardless of legal status or citizenship—except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin. The values shown are midyear estimates for 1990 and 2005 and projections for 2015. • **Average annual population growth rate** is the exponential change for the period indicated. See *Statistical methods* for more information. • **Population age composition** refers to the percentage of the total population that is in specific age groups. • **Dependency ratio** is the ratio of dependents—people younger than 15 or older than 64—to the working-age population—those ages 15–64. • **Crude death rate** and **crude birth rate** are the number of deaths and the number of live births occurring during the year, per 1,000 population, estimated at midyear. Subtracting the crude death rate from the crude birth rate provides the rate of natural increase, which is equal to the population growth rate in the absence of migration.

Data sources

The World Bank's population estimates are compiled and produced by its Human Development Network and Development Data Group in consultation with its operational staff and country offices. Important inputs to the World Bank's demographic work come from the United Nations Population Division's *World Population Prospects: The 2004 Revision;* census reports and other statistical publications from national statistical offices; household surveys conducted by national agencies, Macro International, and the U.S. Centers for Disease Control and Prevention; Eurostat, *Demographic Statistics* (various years); Centro Latinoamericano de Demografía, *Boletín Demográfico* (various years); and U.S. Bureau of the Census, International Database.

2.2 Labor force structure

	Labor force participation rate				Labor force				
	% ages 15–64						Ages 15 and older		
	Male		Female		Total millions		average annual % growth	Female % of labor force	
	1990	2005	1990	2005	1990	2005	1990–2005	1990	2005
Afghanistan	..	..	..	..	..	..	..	..	..
Albania	86.3	75.7	63.3	54.7	1.6	1.4	–0.9	40.2	42.1
Algeria	81.0	83.5	23.7	38.0	7.2	13.4	4.1	22.6	30.7
Angola	90.9	92.2	76.0	75.6	4.5	7.0	2.9	46.4	45.8
Argentina	84.7	82.4	43.5	61.1	13.0	18.4	2.3	34.4	42.9
Armenia	89.7	65.9	76.7	55.4	1.9	1.3	–2.8	47.7	49.2
Australia	84.4	80.8	61.5	67.4	8.4	10.3	1.3	41.3	45.5
Austria	80.1	77.4	55.3	63.8	3.5	4.0	0.8	40.8	44.6
Azerbaijan	80.6	78.1	68.5	66.2	3.3	4.1	1.5	47.4	47.7
Bangladesh	89.8	88.1	64.5	55.2	46.9	63.9	2.1	40.2	36.9
Belarus	82.2	72.3	72.4	66.4	5.3	4.8	–0.7	48.6	49.3
Belgium	71.3	72.5	46.2	57.3	3.9	4.5	0.9	39.0	43.5
Benin	90.0	86.5	59.2	54.8	2.0	3.3	3.3	40.8	38.3
Bolivia	80.9	84.3	49.9	64.5	2.5	4.2	3.4	39.2	43.6
Bosnia and Herzegovina	82.4	78.3	66.1	70.5	2.3	2.1	–0.7	44.7	48.1
Botswana	76.0	68.2	58.9	46.7	0.5	0.6	1.2	45.2	41.8
Brazil	88.8	83.6	47.6	61.0	62.4	91.3	2.5	35.0	42.9
Bulgaria	77.8	62.6	72.3	52.4	4.4	3.1	–2.4	48.0	46.0
Burkina Faso	92.1	90.2	79.3	79.5	3.8	5.8	2.9	46.3	46.6
Burundi	90.7	93.2	91.8	92.8	2.8	3.8	2.1	52.6	51.9
Cambodia	86.7	81.4	81.0	78.0	4.4	6.8	2.9	52.6	51.4
Cameroon	83.5	81.1	58.2	53.9	4.4	6.3	2.4	41.5	39.9
Canada	84.9	82.6	68.3	72.8	14.7	17.6	1.2	44.0	46.4
Central African Republic	89.4	89.4	71.7	70.8	1.4	1.8	2.0	47.0	46.1
Chad	79.0	77.0	64.7	66.0	2.3	3.7	3.0	46.0	46.9
Chile	80.9	76.0	35.2	40.9	5.0	6.5	1.8	30.5	35.1
China	88.9	87.8	79.1	75.8	650.1	776.0	1.2	44.8	44.5
Hong Kong, China	85.5	81.1	53.0	62.2	2.9	3.7	1.7	36.3	46.6
Colombia	85.0	85.2	48.5	65.9	14.1	22.3	3.1	36.9	44.3
Congo, Dem. Rep.	91.2	91.1	62.6	63.1	15.0	22.9	2.8	41.6	41.2
Congo, Rep.	86.3	86.6	57.7	56.1	1.0	1.5	3.0	41.5	40.3
Costa Rica	87.6	84.8	35.3	48.6	1.2	2.0	3.5	27.6	35.1
Côte d'Ivoire	90.3	89.1	44.5	40.1	4.6	6.8	2.6	30.2	29.3
Croatia	76.9	71.0	55.0	57.5	2.2	2.0	–0.8	42.1	45.0
Cuba	79.5	82.3	43.5	50.8	4.5	5.4	1.1	34.8	37.4
Czech Republic	82.2	77.4	74.1	64.0	5.5	5.2	–0.3	47.4	45.2
Denmark	87.1	82.6	77.6	74.2	2.9	2.8	–0.2	46.1	46.8
Dominican Republic	85.6	84.0	37.8	48.5	2.6	3.8	2.5	29.6	35.9
Ecuador	85.9	85.4	33.6	64.1	3.7	6.4	3.6	27.8	42.4
Egypt, Arab Rep.	76.7	76.9	27.6	21.6	16.6	22.9	2.1	26.3	21.7
El Salvador	81.9	78.7	53.5	50.4	2.0	2.8	2.3	41.2	40.2
Eritrea	92.6	90.7	63.1	59.8	1.2	1.8	2.5	42.4	41.1
Estonia	83.0	73.6	76.0	64.4	0.9	0.7	–1.7	49.9	49.4
Ethiopia	92.3	90.7	74.5	73.5	22.6	31.6	2.2	44.9	44.9
Finland	79.0	76.8	72.2	72.8	2.6	2.7	0.2	47.2	47.8
France	75.0	73.5	57.0	62.4	24.8	27.1	0.6	43.3	45.9
Gabon	85.5	83.9	65.5	64.1	0.4	0.6	2.7	43.9	43.3
Gambia, The	86.2	86.6	63.3	60.3	0.4	0.7	3.4	43.4	41.6
Georgia	78.2	76.1	79.1	52.4	2.9	2.3	–1.7	52.3	43.4
Germany	81.4	79.3	56.8	67.4	38.3	41.0	0.4	40.4	45.2
Ghana	80.5	75.7	77.5	71.8	6.7	9.8	2.5	48.9	48.0
Greece	76.7	78.8	43.1	56.0	4.2	5.1	1.4	36.2	40.9
Guatemala	90.7	84.7	30.2	35.2	2.9	4.1	2.3	24.7	31.2
Guinea	90.8	88.6	82.8	82.6	3.0	4.4	2.6	46.2	46.6
Guinea-Bissau	91.4	93.0	60.5	63.1	0.4	0.6	2.9	40.3	40.9
Haiti	82.7	83.3	59.1	57.9	2.6	3.7	2.2	43.3	41.7

2.2 Labor force structure

	Labor force participation rate				Labor force				
	% ages 15–64				Total millions		Ages 15 and older average annual % growth	Female % of labor force	
	Male		Female						
	1990	2005	1990	2005	1990	2005	1990–2005	1990	2005
Honduras	89.0	90.5	34.6	56.5	1.6	3.1	4.4	27.7	37.7
Hungary	74.4	66.8	57.3	53.5	4.5	4.2	–0.5	44.5	45.1
India	86.6	84.3	40.3	36.0	335.1	435.0	1.7	29.9	28.4
Indonesia	82.9	87.1	52.1	53.0	75.3	107.2	2.4	38.4	37.9
Iran, Islamic Rep.	82.3	75.5	22.5	40.5	15.6	27.5	3.8	20.2	33.8
Iraq	77.8	..	16.4	..	4.7	..	..	16.8	..
Ireland	77.9	80.4	42.3	62.2	1.3	2.1	3.0	34.3	43.0
Israel	68.1	65.6	46.8	58.7	1.6	2.7	3.4	40.5	47.0
Italy	76.7	74.3	44.6	50.1	23.9	24.4	0.1	37.1	40.1
Jamaica	83.0	78.0	71.3	59.3	1.1	1.2	0.3	46.8	43.6
Japan	83.1	84.8	57.1	60.5	63.9	66.6	0.3	40.6	41.1
Jordan	71.3	79.7	18.6	28.9	0.8	1.8	6.0	18.8	24.4
Kazakhstan	81.6	80.1	68.0	73.6	7.7	8.1	0.3	46.3	49.6
Kenya	90.6	89.6	76.2	71.3	9.8	15.5	3.0	46.0	43.8
Korea, Dem. Rep.	84.0	80.4	56.4	49.9	9.7	10.7	0.6	39.3	38.7
Korea, Rep.	75.3	77.3	49.7	54.2	19.1	24.4	1.6	39.3	40.8
Kuwait	83.1	86.4	35.6	50.4	0.9	1.4	3.2	21.8	25.4
Kyrgyz Republic	78.0	77.5	65.0	59.9	1.8	2.3	1.4	46.2	44.2
Lao PDR	81.6	82.3	56.3	56.4	1.5	2.4	2.8	41.3	40.6
Latvia	83.4	71.9	75.0	63.0	1.5	1.1	–1.9	49.5	48.7
Lebanon	81.5	83.9	34.4	35.7	0.9	1.4	2.7	31.8	30.4
Lesotho	86.8	73.8	59.4	48.7	0.6	0.6	0.3	46.5	44.5
Liberia	85.2	83.8	55.9	55.7	0.8	1.2	2.8	39.4	39.9
Libya	81.4	82.8	19.9	33.9	1.3	2.3	4.1	17.3	27.1
Lithuania	81.7	72.4	70.4	65.9	1.9	1.6	–1.1	48.1	49.2
Macedonia, FYR	77.5	73.2	52.8	47.9	0.9	0.9	0.1	40.0	39.2
Madagascar	83.6	86.3	79.5	79.8	5.4	8.6	3.1	49.2	48.4
Malawi	91.7	89.9	86.2	86.2	4.5	5.9	1.9	50.3	49.8
Malaysia	82.7	83.7	45.3	48.1	7.1	11.0	2.9	34.8	35.8
Mali	90.7	85.1	75.1	74.8	3.8	5.5	2.5	46.0	47.5
Mauritania	87.6	85.1	57.8	56.5	0.8	1.2	2.7	40.7	40.4
Mauritius	86.6	84.1	45.2	46.9	0.5	0.6	1.4	33.9	35.7
Mexico	85.4	83.0	36.2	42.6	29.5	42.3	2.4	30.6	35.2
Moldova	81.5	76.0	70.4	65.4	2.1	2.2	0.1	48.6	47.7
Mongolia	83.7	83.3	59.3	56.2	0.8	1.2	2.4	41.0	40.1
Morocco	83.9	83.8	25.6	28.7	7.5	11.1	2.6	23.7	25.5
Mozambique	88.0	82.7	88.1	84.9	6.3	9.3	2.6	54.0	53.5
Myanmar	89.2	87.7	71.2	70.0	20.0	27.4	2.1	44.6	45.0
Namibia	67.1	64.5	50.6	48.4	0.4	0.6	2.5	44.1	43.6
Nepal	82.5	80.6	50.4	52.5	7.1	10.5	2.6	37.9	40.5
Netherlands	80.0	84.5	53.1	69.5	6.9	8.6	1.4	39.1	44.2
New Zealand	83.0	83.3	63.2	71.2	1.7	2.2	1.7	43.1	46.6
Nicaragua	87.0	87.4	36.8	36.9	1.3	1.9	2.7	30.1	29.8
Niger	94.7	95.5	72.4	73.0	3.6	5.9	3.4	42.6	42.0
Nigeria	86.9	85.8	49.0	46.6	32.7	47.9	2.5	36.2	34.7
Norway	82.5	83.6	69.9	77.3	2.2	2.5	0.9	44.7	47.3
Oman	83.8	82.7	15.7	23.6	0.6	1.0	3.5	11.1	16.4
Pakistan	88.1	85.7	28.8	33.7	35.2	56.5	3.2	23.3	27.0
Panama	82.7	83.0	41.6	54.9	0.9	1.5	3.1	32.5	38.8
Papua New Guinea	75.9	75.2	72.3	72.8	1.8	2.6	2.5	46.4	47.6
Paraguay	85.7	86.9	54.4	68.6	1.6	2.8	3.4	38.3	43.5
Peru	82.0	83.5	48.6	61.2	8.5	13.3	3.0	37.0	42.0
Philippines	83.7	84.7	48.7	56.5	23.4	37.1	3.1	36.6	39.8
Poland	79.2	68.8	65.1	57.6	18.6	17.3	–0.5	45.8	45.7
Portugal	82.6	79.7	59.2	67.8	4.8	5.6	1.0	42.7	46.5
Puerto Rico	67.4	67.7	35.0	44.4	1.2	1.5	1.6	35.8	41.5

2.2 Labor force structure

	Labor force participation rate				Labor force				
	% ages 15–64				Total millions		Ages 15 and older average annual % growth	Female % of labor force	
	Male		Female						
	1990	2005	1990	2005	1990	2005	1990–2005	1990	2005
Romania	77.2	69.5	61.1	55.3	11.0	10.3	–0.4	44.3	46.2
Russian Federation	81.6	75.3	71.7	67.1	77.2	73.2	–0.4	48.3	49.0
Rwanda	88.3	84.9	87.4	82.0	3.1	4.2	2.1	51.0	51.2
Saudi Arabia	81.3	80.4	15.6	18.5	5.1	7.5	2.5	11.4	15.2
Senegal	87.8	83.4	63.4	58.4	3.1	4.6	2.6	43.4	42.5
Serbia and Montenegro	77.0	76.0	54.9	54.7	4.9[a]	3.9	0.0[b]	41.7	42.2
Sierra Leone	90.2	94.5	55.6	58.4	1.7	2.4	2.2	38.5	38.5
Singapore	83.9	82.8	54.2	56.7	1.6	2.2	2.4	38.8	39.9
Slovak Republic	82.5	76.4	70.6	62.4	2.6	2.7	0.1	46.3	45.1
Slovenia	76.9	75.5	63.3	66.6	1.0	1.0	0.4	45.5	46.2
Somalia	95.8	95.1	63.1	61.0	2.8	3.5	1.4	39.9	39.2
South Africa	81.6	81.9	57.4	49.3	14.4	19.6	2.1	41.6	38.2
Spain	80.3	80.7	41.9	57.2	16.0	20.9	1.8	34.3	41.0
Sri Lanka	82.9	81.9	48.2	38.5	7.3	8.4	1.0	34.8	30.4
Sudan	78.9	72.5	27.8	24.2	7.8	10.5	2.0	26.0	24.8
Swaziland	79.6	74.5	39.6	32.9	0.2	0.3	2.7	38.0	32.9
Sweden	86.0	79.0	81.9	74.9	4.7	4.7	–0.1	47.7	47.4
Switzerland	90.2	87.6	62.8	75.3	3.7	4.2	0.9	40.4	46.6
Syrian Arab Republic	83.7	89.2	29.7	39.9	3.7	7.6	4.8	26.2	30.6
Tajikistan	77.6	65.8	56.2	49.5	1.9	2.1	0.8	42.2	43.8
Tanzania	92.1	90.7	90.2	88.2	12.8	19.3	2.7	50.2	49.4
Thailand	90.6	84.5	79.2	71.0	30.4	35.7	1.1	46.6	46.2
Togo	90.8	90.4	55.2	51.7	1.5	2.4	3.1	38.5	36.9
Trinidad and Tobago	79.7	82.5	45.9	51.4	0.5	0.6	1.9	36.1	38.9
Tunisia	79.2	78.4	22.1	31.1	2.4	3.8	3.0	21.5	27.6
Turkey	84.5	76.0	36.2	27.2	21.0	26.6	1.6	29.4	26.4
Turkmenistan	80.0	76.5	69.1	65.1	1.5	2.2	2.4	46.9	46.7
Uganda	92.4	87.3	82.0	81.2	7.8	11.9	2.8	47.5	48.3
Ukraine	79.7	72.4	70.7	62.9	26.3	22.3	–1.1	49.2	49.1
United Arab Emirates	92.4	92.0	25.9	39.0	0.9	2.7	7.3	9.8	13.4
United Kingdom	87.9	81.9	67.2	69.3	29.4	30.6	0.3	44.0	46.0
United States	85.1	81.5	67.5	70.1	129.3	155.5	1.2	44.4	46.2
Uruguay	85.9	86.1	54.3	66.3	1.4	1.8	1.6	39.9	44.2
Uzbekistan	78.5	75.7	64.4	60.6	8.2	11.3	2.2	45.4	44.6
Venezuela, RB	82.4	85.7	39.8	61.9	7.3	12.9	3.8	31.8	40.9
Vietnam	85.5	82.4	79.4	77.4	31.3	44.0	2.3	48.3	48.5
West Bank and Gaza	67.0	68.8	9.5	10.9	0.4	0.8	4.5	11.9	13.1
Yemen, Rep.	76.1	77.5	28.6	30.8	3.0	5.9	4.6	27.3	27.9
Zambia	90.4	91.5	67.8	68.3	3.5	4.9	2.4	43.2	42.2
Zimbabwe	81.0	85.2	69.9	64.5	4.3	5.8	2.0	47.2	44.0
World	**85.5 w**	**83.8 w**	**58.9 w**	**57.9 w**	**2,390.7 t**	**3,027.5 t**	**1.6 w**	**39.9 w**	**40.1 w**
Low income	87.0	85.0	50.6	47.8	699.6	965.3	2.1	35.7	35.0
Middle income	85.8	84.0	63.9	62.7	1,263.5	1,569.4	1.4	41.8	42.1
Lower middle income	86.7	85.4	66.2	65.1	1,031.9	1,301.1	1.5	42.0	42.3
Upper middle income	82.2	77.9	55.0	52.6	231.6	268.3	1.0	40.6	40.9
Low & middle income	86.3	84.4	59.0	56.7	1,963.1	2,534.7	1.7	39.6	39.4
East Asia & Pacific	87.8	87.0	74.3	71.4	856.8	1,063.4	1.4	44.1	43.8
Europe & Central Asia	80.8	74.0	65.1	57.9	223.8	219.1	–0.1	45.6	44.9
Latin America & Carib.	85.9	83.5	43.8	56.0	171.0	252.9	2.6	34.0	40.7
Middle East & N. Africa	79.9	79.3	24.5	31.1	64.9	108.3	3.4	22.9	27.6
South Asia	86.9	84.8	41.7	38.1	437.0	585.0	1.9	30.6	29.4
Sub-Saharan Africa	87.8	86.3	65.1	62.6	209.7	306.0	2.5	43.0	42.1
High income	82.1	80.4	58.6	63.8	427.6	492.8	0.9	41.3	43.7
Europe EMU	78.5	77.4	51.7	61.1	131.5	147.2	0.8	39.6	43.7

a. Includes population of Kosovo and Metahia until 1999. b. Data are for 1990–99.

2.2 Labor force structure

About the data

The labor force is the supply of labor available for the production of goods and services in an economy. It includes people who are currently employed and people who are unemployed but seeking work as well as first-time job-seekers. Not everyone who works is included, however. Unpaid workers, family workers, and students are among those usually omitted, and in some countries members of the military are not counted. The size of the labor force tends to vary during the year as seasonal workers enter and leave it.

Data on the labor force are from labor force surveys, censuses, establishment censuses and surveys, and various types of administrative records such as employment exchange registers and unemployment insurance schemes. For some countries a combination of these sources is used. While the resulting statistics may provide rough estimates of the labor force, they are not comparable across countries or sometimes within countries because of the noncomparability of the original data, differences in concepts and methodologies, and the different ways the original sources may be combined.

Labor force surveys are the most comprehensive source for internationally comparable labor force data. They can be designed to cover all noninstitutionalized civilians, all branches and sectors of the economy, and all categories of workers, including people who hold multiple jobs. By contrast, labor force data obtained from population censuses are often based on a limited number of questions on the economic characteristics of individuals, with little scope to probe. The resulting data are often contrary to labor force survey data and often vary considerably from country to country, depending on the scope and coverage of the census. Establishment censuses and surveys provide data only on the employed population, leaving out unemployed workers, workers in small establishments, and workers in the informal sector (International Labour Organization, *Key Indicators of the Labour Market 2001–2002).*

The reference period of the census or survey is another important source of differences: in some countries data refer to people's status on the day of the census or survey or during a specific period before the inquiry date, while in others the data are recorded without reference to any period. In developing countries, where the household is often the basic unit of production and all members contribute to output, but some at low intensity or irregular intervals, the estimated labor force may be significantly smaller than the numbers actually working.

The labor force participation rates presented in the table are from the International Labour Organization's (ILO) *Estimates and Projections of the Economically Active Population,* 5th edition. These new estimates used stricter data selection criteria and enhanced methods to ensure comparability across countries and over time, including collection and tabulation methodologies as well as for country-specific factors such as military service requirements. The estimates are based mainly on labor force surveys. Some population census estimates are also included in the estimates, but only when no labor force survey data are available. Data from official government estimates are not included as these methodologies can differ significantly across countries and over time. Data with limited age group and geographic coverage are also excluded.

The labor force participation rate of the population ages 15–64 provides an indication of the relative size of the labor supply. But in many developing countries children under age 15 work full or part time. And in some high-income countries many workers postpone retirement past age 65. As a result, labor force participation rates calculated in this way may systematically over- or under-estimate actual rates. For further information on the labor force participation rate, consult the original source.

The labor force estimates in the table were calculated by World Bank staff by applying labor force participation rates from the ILO database to World Bank population estimates to create a series consistent with these population estimates. This procedure sometimes results in estimates of labor force size that differ slightly from those in the ILO's *Yearbook of Labour Statistics* and its database Key Indicators of the Labour Market. The labor force estimates in this year's *World Development Indicators,* as were last year's, are for the population ages 15 and older. In previous editions the labor force included children under age 15. For this reason, labor force estimates are not comparable across editions.

In general, estimates of women in the labor force are lower than those of men and are not comparable internationally, reflecting the fact that for women demographic, social, legal, and cultural trends and norms determine whether their activities are regarded as economic. In many countries large numbers of women work on farms or in other family enterprises without pay, while others work in or near their homes, mixing work and family activities during the day. Countries differ in the criteria used to determine the extent to which such workers are to be counted as part of the labor force. In most economies the gap between male and female labor force participation rates has been narrowing since 1980. This stems from both falling rates for men and rising rates for women. The largest gap between men and women in labor force participation is observed in the Middle East and North Africa, where low participation of women in the work force also brings down the overall labor force participation rate.

Definitions

• **Labor force participation rate** is the proportion of the population ages 15–64 that is economically active: all people who supply labor for the production of goods and services during a specified period. • **Total labor force** comprises people ages 15 and older who meet the ILO definition of the economically active population. It includes both the employed and the unemployed. • **Average annual growth rate of the labor force** is calculated using the exponential endpoint method (see *Statistical methods* for more information). • **Females as a percentage of the labor force** show the extent to which women are active in the labor force.

Data sources

The labor force participation rates are from the ILO database Estimates and Projections of the Economically Active Population, 1980–2020, 5th edition. The ILO publishes estimates of the economically active population in its *Yearbook of Labour Statistics.* Labor force numbers were calculated by World Bank staff, applying labor force participation rates from the ILO database to population estimates.

2.3 Employment by economic activity

	Agriculture				Industry				Services			
	Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment	
	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]
Afghanistan	..	..	..	..	..	..	..	..	..	..	..	..
Albania	..	..	..	..	..	..	..	..	..	..	..	..
Algeria	..	20	..	22	..	26	..	28	..	54	..	49
Angola	..	..	..	..	..	..	..	..	..	..	..	..
Argentina	0[b, c]	2[c]	0[b, c]	1[b, c]	40[c]	33[c]	18[c]	11[c]	59[c]	66[c]	81[c]	88[c]
Armenia	..	..	..	..	..	..	..	..	..	..	..	..
Australia	6	5[c]	4	3[c]	32	31[c]	12	9[c]	61	65[c]	84	88[c]
Austria	6	6[c]	8	6[c]	47	40[c]	20	13[c]	46	55[c]	72	81[c]
Azerbaijan	..	41	..	37	..	15	..	9	..	44	..	54
Bangladesh	54	50	85	59	16	12	9	18	25	38	2	23
Belarus	..	..	..	..	..	..	..	..	..	..	..	..
Belgium	3[c]	3[c]	2[c]	1[c]	41[c]	35[c]	16[c]	11[c]	56[c]	62[c]	81[c]	82[c]
Benin	..	..	..	..	..	..	..	..	..	..	..	..
Bolivia	3[c]	6[c]	1[c]	3[c]	42[c]	39[c]	17[c]	14[c]	55[c]	55[c]	82[c]	82[c]
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..	..	..
Botswana	..	26	..	19	..	29	..	13	..	43	..	58
Brazil	31[c]	25[c]	25[c]	16[c]	27[c]	27[c]	10[c]	13[c]	43[c]	48[c]	65[c]	71[c]
Bulgaria	..	11	..	7	..	39	..	29	..	50	..	64
Burkina Faso	..	..	..	..	..	..	..	..	..	..	..	..
Burundi	..	..	..	..	..	..	..	..	..	..	..	..
Cambodia	..	61	..	59	..	12	..	13	..	27	..	27
Cameroon	53	..	68	..	14	..	4	..	26	..	23	..
Canada	6[c]	4[c]	2[c]	2[c]	31[c]	32[c]	11[c]	11[c]	64[c]	64[c]	87[c]	88[c]
Central African Republic	..	..	..	..	..	..	..	..	..	..	..	..
Chad	..	..	..	..	..	..	..	..	..	..	..	..
Chile	24	17	6	6	32	29	15	12	45	54	79	83
China	..	..	..	..	..	..	..	..	..	..	..	..
Hong Kong, China	1	0[b]	0[b]	0[b]	37	22	27	7	63	77	73	93
Colombia	2[c]	32	1[c]	8	35[c]	21	25[c]	16	63[c]	48	74[c]	76
Congo, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Congo, Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Costa Rica	32	21	5	5	27	26	25	13	41	52	69	82
Côte d'Ivoire	..	..	..	..	..	..	..	..	..	..	..	..
Croatia	..	16	..	19	..	37	..	18	..	47	..	63
Cuba	..	28	..	10	..	23	..	14	..	50	..	76
Czech Republic	9	5	7	3	55	49	33	27	36	46	61	71
Denmark	7	4	3	2	37	34	16	12	56	62	81	86
Dominican Republic	26	23	3	2	23	24	21	15	52	53	76	83
Ecuador	10[c]	11[c]	2[c]	4[c]	29[c]	27[c]	17[c]	12[c]	62[c]	62[c]	81[c]	84[c]
Egypt, Arab Rep.	35	28	52	39	25	23	10	6	41	49	37	55
El Salvador	48	30	15	3	23	25	23	22	29	45	63	75
Eritrea	..	..	..	..	..	..	..	..	..	..	..	..
Estonia	23	7	13	4	42	44	30	24	36	49	57	72
Ethiopia	..	..	..	..	..	..	..	..	..	..	..	..
Finland	11	7	6	3	38	38	15	12	51	56	78	84
France	..	5	..	3	..	35	..	12	..	60	..	84
Gabon	..	..	..	..	..	..	..	..	..	..	..	..
Gambia, The	..	..	..	..	..	..	..	..	..	..	..	..
Georgia	..	52	..	57	..	14	..	4	..	34	..	38
Germany	4	3	4	2	50	41	24	16	47	56	72	82
Ghana	66	60	59	50	10	14	10	15	23	27	32	36
Greece	20[c]	12[c]	26[c]	14[c]	32[c]	30[c]	17[c]	10[c]	48[c]	58[c]	56[c]	76[c]
Guatemala	..	50	..	18	..	18	..	23	..	27	..	56
Guinea	..	..	..	..	..	..	..	..	..	..	..	..
Guinea-Bissau	..	..	..	..	..	..	..	..	..	..	..	..
Haiti	..	..	..	..	..	..	..	..	..	..	..	..

2.3 Employment by economic activity

	Agriculture				Industry				Services			
	Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment	
	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]
Honduras	53[c]	51[c]	6[c]	13[c]	18[c]	20[c]	25[c]	23[c]	29[c]	29[c]	69[c]	63[c]
Hungary	..	7[c]	..	3[c]	..	42[c]	..	21[c]	..	51[c]	..	76[c]
India	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia	54	43	57	45	15	20	13	15	31	37	31	40
Iran, Islamic Rep.	..	23	..	34	..	31	..	28	..	46	..	37
Iraq	..	..	..	..	..	..	..	..	..	..	..	..
Ireland	19	9	3	1	33	39	18	12	48	51	78	86
Israel	5	3	2	1	38	32	15	11	57	64	83	88
Italy	8	5	9	3	37	39	22	18	55	56	70	79
Jamaica	36	25	16	9	25	27	12	5	39	48	72	86
Japan	6	4	7	5	40	35	27	18	54	59	65	77
Jordan	..	4	..	2	..	23	..	13	..	73	..	83
Kazakhstan	..	35	..	32	..	24	..	10	..	41	..	58
Kenya	19[c]	..	20[c]	..	23[c]	..	9[c]	..	58[c]	..	71[c]	..
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	14	7	18	9	40	34	28	17	46	59	54	74
Kuwait	..	..	..	..	..	..	..	..	..	..	..	..
Kyrgyz Republic	..	51	..	55	..	13	..	7	..	36	..	38
Lao PDR	..	..	..	..	..	..	..	..	..	..	..	..
Latvia	..	15[c]	..	8[c]	..	35[c]	..	16[c]	..	49[c]	..	75[c]
Lebanon	..	..	..	..	..	..	..	..	..	..	..	..
Lesotho	..	..	..	..	..	..	..	..	..	..	..	..
Liberia	..	..	..	..	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	..	..	..	..	..	..
Lithuania	25	17	15	11	46	37	31	21	29	46	54	68
Macedonia, FYR	..	20	..	19	..	34	..	30	..	46	..	51
Madagascar	..	77	..	79	..	7	..	6	..	16	..	15
Malawi	..	..	..	..	..	..	..	..	..	..	..	..
Malaysia	23	16	20	11	31	35	32	27	46	49	48	62
Mali	..	..	..	..	..	..	..	..	..	..	..	..
Mauritania	..	..	..	..	..	..	..	..	..	..	..	..
Mauritius	15[c]	11	13[c]	9	36[c]	34	48[c]	29	48[c]	55	39[c]	62
Mexico	33	21	10	5	25	30	19	19	41	49	62	76
Moldova	..	41	..	40	..	21	..	12	..	38	..	48
Mongolia	..	43	..	38	..	19	..	14	..	39	..	49
Morocco	..	41	..	63	..	23	..	15	..	36	..	22
Mozambique	..	..	..	..	..	..	..	..	..	..	..	..
Myanmar	..	..	..	..	..	..	..	..	..	..	..	..
Namibia	45	33	52	29	21	17	8	7	32	49	29	63
Nepal	..	..	..	..	..	..	..	..	..	..	..	..
Netherlands	5	4	3	2	33	30	10	8	60	62	82	86
New Zealand	13	9	8	5	31	32	13	11	56	59	80	84
Nicaragua	..	43	..	10	..	19	..	17	..	32	..	52
Niger	..	..	..	..	..	..	..	..	..	..	..	..
Nigeria	..	..	..	..	..	..	..	..	..	..	..	..
Norway	7	5	3	2	34	32	10	8	58	63	86	90
Oman	..	7	..	5	..	11	..	14	..	82	..	80
Pakistan	45	38	69	65	20	22	15	16	35	40	16	20
Panama	35	22	3	4	20	22	11	9	45	56	85	86
Papua New Guinea	..	..	..	..	..	..	..	..	..	..	..	..
Paraguay	3[c]	39	0[b, c]	20	33[c]	19	19[c]	10	64[c]	42	80[c]	70
Peru	1[c]	1[c]	0[b, c]	0[c]	30[c]	31[c]	13[c]	13[c]	69[c]	68[c]	87[c]	86[c]
Philippines	53	45	32	25	17	17	14	12	29	39	55	64
Poland	..	18[c]	..	17[c]	..	39[c]	..	17[c]	..	43[c]	..	66[c]
Portugal	10	12	13	13	39	42	24	21	51	46	63	66
Puerto Rico	5	3	0[b]	0[b]	27	25	19	11	67	72	80	89

2.3 Employment by economic activity

	Agriculture				Industry				Services			
	Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment		Male % of male employment		Female % of female employment	
	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]
Romania	29	31	38	33	44	35	30	25	28	34	33	42
Russian Federation	..	12	..	8	..	38	..	21	..	50	..	71
Rwanda	..	..	..	..	..	..	..	..	..	..	..	..
Saudi Arabia	..	5	..	1	..	24	..	1	..	71	..	98
Senegal	..	..	..	..	..	..	..	..	..	..	..	..
Serbia and Montenegro	..	..	..	..	..	..	..	..	..	..	..	..
Sierra Leone	..	..	..	..	..	..	..	..	..	..	..	..
Singapore	1	0[b]	0[b]	0[b]	36	36	32	21	63	63	68	79
Slovak Republic	..	6[c]	..	3[c]	..	50[c]	..	25[c]	..	44[c]	..	72[c]
Slovenia	..	9	..	9	..	47	..	25	..	43	..	65
Somalia	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	..	13	..	7	..	33	..	14	..	54	..	79
Spain	11[c]	6[c]	8[c]	4[c]	41[c]	41[c]	16[c]	12[c]	49[c]	52[c]	76[c]	84[c]
Sri Lanka	..	32[c]	..	40[c]	..	40[c]	..	35[c]	..	29[c]	..	25[c]
Sudan	..	..	..	..	..	..	..	..	..	..	..	..
Swaziland	..	..	..	..	..	..	..	..	..	..	..	..
Sweden	5	3	2	1	40	34	12	9	55	63	86	90
Switzerland	4	5[c]	4	3[c]	37	32[c]	15	12[c]	59	63[c]	81	85[c]
Syrian Arab Republic	..	24	..	58	..	31	..	7	..	45	..	35
Tajikistan	..	..	..	..	..	..	..	..	..	..	..	..
Tanzania	78[c]	80[c]	90[c]	84[c]	7[c]	4[c]	1[c]	1[c]	15[c]	16[c]	8[c]	15[c]
Thailand	59	44	60	41	16	22	14	19	25	34	25	41
Togo	..	..	..	..	..	..	..	..	..	..	..	..
Trinidad and Tobago	15	10	6	2	34	37	14	14	51	53	80	84
Tunisia	..	..	..	..	..	..	..	..	..	..	..	..
Turkey	33	22	72	52	26	28	11	15	41	50	17	33
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	91	60	91	77	4	11	6	5	5	28	3	17
Ukraine	..	21	..	17	..	38	..	21	..	41	..	62
United Arab Emirates	..	9	..	0[b]	..	36	..	14	..	55	..	86
United Kingdom	3	2	1	1	41	33	16	9	55	65	82	90
United States	4	2	1	1	34	30	14	10	62	68	85	90
Uruguay	7[c]	7[c]	1[c]	2[c]	36[c]	29[c]	21[c]	13[c]	57[c]	64[c]	78[c]	86[c]
Uzbekistan	..	..	..	..	..	..	..	..	..	..	..	..
Venezuela, RB	17	16[c]	2	2[c]	32	25[c]	16	11[c]	52	59[c]	82	86[c]
Vietnam	..	56	..	60	..	21	..	14	..	23	..	26
West Bank and Gaza	..	12	..	34	..	28	..	8	..	59	..	56
Yemen, Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Zambia	..	..	..	..	..	..	..	..	..	..	..	..
Zimbabwe	..	..	..	..	..	..	..	..	..	..	..	..
World	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w	.. w
Low income	..	..	..	..	..	..	..	..	..	..	..	..
Middle income	..	..	..	..	..	..	..	..	..	..	..	..
Lower middle income	..	..	..	..	..	..	..	..	..	..	..	..
Upper middle income	..	16	..	12	..	34	..	19	..	50	..	69
Low & middle income	..	..	..	..	..	..	..	..	..	..	..	..
East Asia & Pacific	..	..	..	..	..	..	..	..	..	..	..	..
Europe & Central Asia	..	17	..	17	..	35	..	20	..	47	..	63
Latin America & Carib.	20	21	14	10	30	27	14	14	50	52	72	76
Middle East & N. Africa	..	..	..	..	..	..	..	..	..	..	..	..
South Asia	..	..	..	..	..	..	..	..	..	..	..	..
Sub-Saharan Africa	..	..	..	..	..	..	..	..	..	..	..	..
High income	6	4	5	2	38	34	19	12	56	62	77	96
Europe EMU	7	5	7	3	42	39	20	15	50	56	72	82

Note: Data across sectors may not sum to 100 percent because of workers not classified by sectors.
a. Data are for the most recent year available. b. Less than 0.5. c. Limited coverage.

2.3 Employment by economic activity

About the data

The International Labour Organization (ILO) classifies economic activity using the International Standard Industrial Classification (ISIC) of All Economic Activities, revision 2 (1968) and revision 3 (1990). Because this classification is based on where work is performed (industry) rather than on what type of work is performed (occupation), all of an enterprise's employees are classified under the same industry, regardless of their trade or occupation. The categories should add up to 100 percent. Where they do not, the differences arise because of workers who cannot be classified by economic activity.

Data on employment are drawn from labor force surveys, household surveys, official estimates, censuses and administrative records of social insurance schemes, and establishment surveys when no other information is available. The concept of employment generally refers to people above a certain age who worked, or who held a job, during a reference period. Employment data include both full-time and part-time workers.

There are many differences in how countries define and measure employment status, particularly part-time workers, members of the armed forces, and household or contributing family workers. Where the armed forces are included, they are allocated to the service sector, causing that sector to be somewhat overstated relative to the service sector in economies where they are excluded. Where data are obtained from establishment surveys, they cover only employees; thus self-employed and contributing family workers are excluded. In such cases the employment share of the agricultural sector is severely underreported. Caution should be also used where the data refer only to urban areas, which record little or no agricultural work. Moreover, the age group and area covered could differ by country or change over time within a country. For detailed information on breaks in series, consult the original source.

Countries also take different approaches to the treatment of unemployed people. In most countries unemployed people with previous job experience are classified according to their last job. But in some countries the unemployed and people seeking their first job are not classifiable by economic activity. Because of these differences, the size and distribution of employment by economic activity may not be fully comparable across countries.

The ILO's *Yearbook of Labour Statistics* and its database Key Indicators of the Labour Market report data by major divisions of the ISIC revision 2 or revision 3. In this table the reported divisions or categories are aggregated into three broad groups: agriculture, industry, and services. Such broad classification may obscure fundamental shifts within countries' industrial patterns. A slight majority of countries report economic activity according to the ISIC revision 2 instead of ISIC revision 3. The use of one classification or another should not have a significant impact on the information for the three broad sectors presented in this table.

The distribution of economic wealth in the world remains strongly correlated with employment by economic activity. The wealthier economies are those with the largest share of total employment in services, whereas the poorer economies are largely agriculture based.

The distribution of economic activity by gender reveals some clear patterns. Men still make up the majority of people employed in all three sectors, but the gender gap is biggest in industry. Employment in agriculture is also male-dominated, although not as much as industry. Segregating one sex in a narrow range of occupations significantly reduces economic efficiency by reducing labor market flexibility and thus the economy's ability to adapt to change. This segregation is particularly harmful for women, who have a much narrower range of labor market choices and lower levels of pay than men (see box 2.3a). But it is also detrimental to men when job losses are concentrated in industries dominated by men and job growth is centered in service occupations, where women have better chances, as has been the recent experience in many countries.

There are several explanations for the rising importance of service jobs for women. Many service jobs—such as nursing and social and clerical work—are considered "feminine" because of a perceived similarity to women's traditional roles. Women often do not receive the training needed to take advantage of changing employment opportunities. And the greater availability of part-time work in service industries may lure more women, although it is unclear whether this is a cause or an effect.

Lower wages and less rewarding employment opportunities mean higher risk of poverty for women — Box 2.3a

Within any employment status, women's earnings in Egypt tend to be lower than men's (see table). A small- and micro-enterprise survey for Egypt found that while workers' wages increased with firm size, women accounted for a decreasing share of total employment. Taken together, less rewarding employment opportunities and lower wages mean that women face a higher risk of poverty.

Average wages per worker and women's share of employment by firm size in Egypt, 2003

Size of firm	Average wages (2002 Egyptian pounds)	Women as share of total employment (%)
1 worker	112.8	17.1
2–4 workers	172.1	9.4
5–9 workers	290.1	7.9
10–24 workers	1,073.4	5.9
Total (firms of all sizes)	160.1	14.3

Source: UNIFEM 2005.

Definitions

• **Agriculture** corresponds to division 1 (ISIC revision 2) or tabulation categories A and B (ISIC revision 3) and includes hunting, forestry, and fishing. • **Industry** corresponds to divisions 2–5 (ISIC revision 2) or tabulation categories C–F (ISIC revision 3) and includes mining and quarrying (including oil production), manufacturing, construction, and public utilities (electricity, gas, and water). • **Services** correspond to divisions 6–9 (ISIC revision 2) or tabulation categories G–P (ISIC revision 3) and include wholesale and retail trade and restaurants and hotels; transport, storage, and communications; financing, insurance, real estate, and business services; and community, social, and personal services.

Data sources

Data on employment are from the ILO database Key Indicators of the Labour Market, 4th edition.

2.4 Children at work

	Survey year	Economically active children					Employment by economic activity[a]					
		% of children ages 7–14			% of economically active children ages 7–14		Agriculture		Manufacturing		Services	
		Total	Male	Female	Work only	Work and study	Male	Female	Male	Female	Male	Female
Afghanistan		..	..	..	..	..	..	..	..	..	..	
Albania	2000	36.6	41.1	31.8	43.1	56.9	..	..	..	..	..	..
Algeria		..	..	..	..	..	..	..	..	..	..	
Angola[b]	2001	30.1	30.0	30.3	26.6	73.4	..	..	..	..	..	..
Argentina	1997	20.7	25.4	16.0	8.6	91.4	..	..	..	..	..	..
Armenia		..	..	..	..	..	..	..	..	..	..	
Australia		..	..	..	..	..	..	..	..	..	..	
Austria		..	..	..	..	..	..	..	..	..	..	
Azerbaijan	2000	9.7	12.0	7.3	4.2	95.8	..	..	..	..	..	..
Bangladesh	2003	17.5	20.9	13.9	63.3	36.7	61.4	64.0	11.6	15.5	25.2	18.3
Belarus		..	..	..	..	..	..	..	..	..	..	
Belgium		..	..	..	..	..	..	..	..	..	..	
Benin		..	..	..	..	..	..	..	..	..	..	
Bolivia	2000	19.2	20.4	18.0	19.7	80.3	77.8	72.9	4.3	3.5	15.0	23.6
Bosnia and Herzegovina	2000	20.2	22.8	17.6	4.0	96.0	..	..	..	..	..	..
Botswana		..	..	..	..	..	..	..	..	..	..	
Brazil	2003	7.1	9.5	4.6	5.8	94.2	64.3	49.8	6.5	9.1	26.8	40.9
Bulgaria		..	..	..	..	..	..	..	..	..	..	
Burkina Faso[c]	1998	66.5	65.4	67.7	95.9	4.1	98.0	98.2	0.6	0.5	1.3	1.2
Burundi	2000	37.0	38.4	35.7	48.3	51.7	..	..	..	..	..	..
Cambodia	2001	52.3	52.4	52.1	16.5	83.5	78.5	73.6	4.7	5.4	15.7	20.4
Cameroon[c]	2001	15.9	14.5	17.4	52.5	47.5	90.4	86.3	1.9	2.3	5.1	8.8
Canada		..	..	..	..	..	..	..	..	..	..	
Central African Republic	2000	67.0	66.5	67.6	54.9	45.1	..	..	..	..	..	..
Chad	2000	69.9	73.5	66.5	44.6	55.4	..	..	..	..	..	..
Chile	2003	8.8	10.5	6.9	4.0	96.0	31.5	11.9	7.6	5.8	58.5	80.6
China		..	..	..	..	..	..	..	..	..	..	
Hong Kong, China		..	..	..	..	..	..	..	..	..	..	
Colombia	2001	12.2	16.6	7.7	23.0	77.0	..	..	..	..	..	..
Congo, Dem. Rep.	2000	39.8	39.9	39.8	35.7	64.3	..	..	..	..	..	..
Congo, Rep.		..	..	..	..	..	..	..	..	..	..	
Costa Rica	2002	6.7	9.7	3.5	20.8	79.2	56.5	55.2	8.7	2.7	28.0	42.1
Côte d'Ivoire	2000	40.7	40.9	40.5	46.4	53.6	..	..	..	..	..	..
Croatia		..	..	..	..	..	..	..	..	..	..	
Cuba		..	..	..	..	..	..	..	..	..	..	
Czech Republic		..	..	..	..	..	..	..	..	..	..	
Denmark		..	..	..	..	..	..	..	..	..	..	
Dominican Republic	2000	12.5	16.7	8.1	7.2	92.8	..	..	..	..	..	..
Ecuador	2001	17.9	22.1	13.6	25.0	75.0	65.1	69.2	10.7	8.6	21.2	22.1
Egypt, Arab Rep.	1998	6.4	4.0	8.9	60.9	39.1	..	..	..	..	..	..
El Salvador	2003	12.7	17.1	8.1	19.5	80.5	66.4	17.6	10.8	16.1	21.2	66.3
Eritrea		..	..	..	..	..	..	..	..	..	..	
Estonia		..	..	..	..	..	..	..	..	..	..	
Ethiopia	2001	57.1	67.9	45.9	63.5	36.5	96.5	88.7	0.5	2.8	2.5	6.2
Finland		..	..	..	..	..	..	..	..	..	..	
France		..	..	..	..	..	..	..	..	..	..	
Gabon		..	..	..	..	..	..	..	..	..	..	
Gambia, The	2000	25.3	25.4	25.3	41.6	58.4	..	..	..	..	..	..
Georgia		..	..	..	..	..	..	..	..	..	..	
Germany		..	..	..	..	..	..	..	..	..	..	
Ghana	2000	28.5	28.5	28.4	36.4	63.6	81.0	59.1	4.5	7.6	13.8	32.0
Greece		..	..	..	..	..	..	..	..	..	..	
Guatemala	2000	20.1	25.9	13.9	38.5	61.5	74.5	39.8	5.9	20.1	14.7	40.0
Guinea	1994	48.3	47.2	49.5	98.6	1.4	..	..	..	..	..	..
Guinea-Bissau	2000	67.5	67.4	67.5	63.7	36.3	..	..	..	..	..	..
Haiti		..	..	..	..	..	..	..	..	..	..	

2.4 Children at work

	Survey year	Economically active children					Employment by economic activity[a]					
			% of children ages 7–14		% of economically active children ages 7–14		Agriculture		% of economically active children ages 7–14 Manufacturing		Services	
		Total	Male	Female	Work only	Work and study	Male	Female	Male	Female	Male	Female
Honduras	2002	11.4	16.5	6.1	41.9	58.1	73.6	19.8	5.9	24.4	18.6	55.7
Hungary		..	..	..	..	..	..	..	..	..	..	
India	2000	5.2	5.3	5.1	89.8	10.2	70.5	76.6	10.0	15.4	15.9	6.5
Indonesia		..	..	..	..	..	..	..	..	..	..	
Iran, Islamic Rep.		..	..	..	..	..	..	..	..	..	..	
Iraq	2000	13.7	17.4	9.7	51.7	48.3	..	..	..	..	..	..
Ireland		..	..	..	..	..	..	..	..	..	..	
Israel		..	..	..	..	..	..	..	..	..	..	
Italy		..	..	..	..	..	..	..	..	..	..	
Jamaica	2000	1.1	1.5	0.6	17.1	82.9	36.8	17.1	6.2	11.6	43.6	71.3
Japan		..	..	..	..	..	..	..	..	..	..	
Jordan		..	..	..	..	..	..	..	..	..	..	
Kazakhstan	1996	29.7	30.3	29.1	4.4	95.6	..	..	..	..	..	..
Kenya	1999	6.7	6.9	6.4	44.8	55.2	87.3	74.4	2.5	0.3	8.8	25.3
Korea, Dem. Rep.		..	..	..	..	..	..	..	..	..	..	
Korea, Rep.		..	..	..	..	..	..	..	..	..	..	
Kuwait		..	..	..	..	..	..	..	..	..	..	
Kyrgyz Republic	1998	8.6	9.7	7.6	7.0	93.0	93.0	96.3	0.0	0.0	7.0	2.7
Lao PDR		..	..	..	..	..	..	..	..	..	..	
Latvia		..	..	..	..	..	..	..	..	..	..	
Lebanon		..	..	..	..	..	..	..	..	..	..	
Lesotho	2000	30.8	34.2	27.5	17.6	82.4	..	..	..	..	..	..
Liberia		..	..	..	..	..	..	..	..	..	..	
Libya		..	..	..	..	..	..	..	..	..	..	
Lithuania		..	..	..	..	..	..	..	..	..	..	
Macedonia, FYR		..	..	..	..	..	..	..	..	..	..	
Madagascar	2001	25.6	26.1	25.1	85.1	14.9	94.1	93.9	0.6	1.4	2.0	2.9
Malawi	2000	10.6	9.4	11.6	17.1	82.9	..	..	..	..	..	..
Malaysia		..	..	..	..	..	..	..	..	..	..	
Mali	2001	25.3	32.3	18.6	68.7	31.3	..	..	..	..	..	..
Mauritania		..	..	..	..	..	..	..	..	..	..	
Mauritius		..	..	..	..	..	..	..	..	..	..	
Mexico[d]	1996	14.7	20.0	9.5	45.6	54.4	61.3	38.3	11.4	12.9	22.6	48.2
Moldova	2000	33.5	34.1	32.8	3.8	96.2	..	..	..	..	..	..
Mongolia	2000	22.0	23.5	20.6	28.2	71.8	..	..	..	..	..	..
Morocco	1998–99	13.2	13.5	12.8	93.2	6.8	60.8	60.3	8.1	8.5	13.5	6.4
Mozambique		..	..	..	..	..	..	..	..	..	..	
Myanmar		..	..	..	..	..	..	..	..	..	..	
Namibia	1999	15.4	16.2	14.7	9.5	90.5	91.5	91.7	0.4	0.4	8.1	8.0
Nepal	1999	47.2	42.2	52.4	35.6	64.4	89.0	86.1	1.2	1.5	9.7	12.3
Netherlands		..	..	..	..	..	..	..	..	..	..	
New Zealand		..	..	..	..	..	..	..	..	..	..	
Nicaragua	2001	12.1	17.5	6.5	33.3	66.7	73.2	32.0	3.0	10.2	23.3	57.8
Niger		..	..	..	..	..	..	..	..	..	..	
Nigeria		..	..	..	..	..	..	..	..	..	..	
Norway		..	..	..	..	..	..	..	..	..	..	
Oman		..	..	..	..	..	..	..	..	..	..	
Pakistan		..	..	..	..	..	..	..	..	..	..	
Panama	2000	4.0	6.4	1.4	37.5	62.5	71.1	38.4	1.4	8.0	27.2	49.5
Papua New Guinea		..	..	..	..	..	..	..	..	..	..	
Paraguay	1999	8.1	11.7	4.4	24.2	75.7	61.2	30.9	3.8	4.6	33.1	64.5
Peru	1994	17.7	20.4	15.2	7.3	92.7	78.9	76.3	3.6	3.4	17.5	20.3
Philippines	2001	13.3	16.3	10.0	14.8	85.2	72.6	53.6	3.6	5.3	22.1	41.0
Poland		..	..	..	..	..	..	..	..	..	..	
Portugal	2001	3.6	4.6	2.6	3.6	96.4	52.7	40.7	11.4	10.7	25.6	47.7
Puerto Rico		..	..	..	..	..	..	..	..	..	..	

2.4 Children at work

	Survey year	Economically active children					Employment by economic activity[a]					
		% of children ages 7–14			% of economically active children ages 7–14		Agriculture		% of economically active children ages 7–14 Manufacturing		Services	
		Total	Male	Female	Work only	Work and study	Male	Female	Male	Female	Male	Female
Romania	2000	1.4	1.7	1.1	20.7	79.3	96.4	98.1	0.0	0.0	2.6	1.9
Russian Federation		..	..	..	..	..	..	..	..	..	..	
Rwanda	2000	33.1	36.1	30.3	27.5	72.5	..	..	..	..	..	..
Saudi Arabia		..	..	..	..	..	..	..	..	..	..	
Senegal	2000	35.4	43.2	27.7	56.2	43.8	..	..	..	..	..	..
Serbia and Montenegro		..	..	..	..	..	..	..	..	..	..	
Sierra Leone	2000	74.0	24.7	72.7	53.8	46.2	..	..	..	..	..	..
Singapore		..	..	..	..	..	..	..	..	..	..	
Slovak Republic		..	..	..	..	..	..	..	..	..	..	
Slovenia		..	..	..	..	..	..	..	..	..	..	
Somalia		..	..	..	..	..	..	..	..	..	..	
South Africa	1999	27.7	29.0	26.4	5.1	94.9	..	..	..	..	..	..
Spain		..	..	..	..	..	..	..	..	..	..	
Sri Lanka	1998	17.0	20.4	13.4	5.4	94.6	71.1	71.4	12.0	15.0	15.8	13.5
Sudan	2000	19.1	21.5	16.8	55.9	44.1	..	..	..	..	..	..
Swaziland	2000	11.2	11.4	10.9	14.0	86.0	..	..	..	..	..	..
Sweden		..	..	..	..	..	..	..	..	..	..	
Switzerland		..	..	..	..	..	..	..	..	..	..	
Syrian Arab Republic		..	..	..	..	..	..	..	..	..	..	
Tajikistan		..	..	..	..	..	..	..	..	..	..	
Tanzania	2001	40.4	41.5	39.2	40.0	60.0	83.5	73.1	0.1	0.2	16.3	26.7
Thailand		..	..	..	..	..	..	..	..	..	..	
Togo	2000	72.5	73.4	71.6	28.4	71.6	..	..	..	..	..	..
Trinidad and Tobago	2000	3.9	5.2	2.8	12.8	87.2	..	..	..	..	..	..
Tunisia		..	..	..	..	..	..	..	..	..	..	
Turkey	1999	4.5	5.2	3.8	66.8	33.2	52.7	83.4	19.9	10.2	10.2	1.8
Turkmenistan		..	..	..	..	..	..	..	..	..	..	
Uganda	2002–03	13.1	15.0	11.3	18.3	81.7	94.3	92.3	1.5	1.3	3.2	6.0
Ukraine		..	..	..	..	..	..	..	..	..	..	
United Arab Emirates		..	..	..	..	..	..	..	..	..	..	
United Kingdom		..	..	..	..	..	..	..	..	..	..	
United States		..	..	..	..	..	..	..	..	..	..	
Uruguay		..	..	..	..	..	..	..	..	..	..	
Uzbekistan	2000	18.1	22.0	14.0	4.1	95.9	..	..	..	..	..	..
Venezuela, RB[c]	2003	9.1	11.4	6.6	17.6	82.4	35.2	9.2	7.3	9.5	53.9	81.0
Vietnam		..	..	..	..	..	..	..	..	..	..	
West Bank and Gaza		..	..	..	..	..	..	..	..	..	..	
Yemen, Rep.	1999	13.1	12.4	14.0	64.3	35.7	87.2	96.6	1.2	0.8	10.8	1.8
Zambia	1999	14.4	15.0	13.9	72.8	27.2	92.7	88.1	0.3	0.8	6.6	11.0
Zimbabwe	1999	14.3	13.3	15.3	12.0	88.0	..	..	..	..	..	..

a. Shares by major industrial category do not sum to 100 percent because of a residual category not included in the table. b. The totals (urban and rural combined) represent what can be described as Angola-Secured Territory but not the nation as a whole. c. Data are for children ages 10–14. d. Data are for children ages 12–14.

2.4 Children at work

About the data

The data in the table refer to children's economic activity, a broader concept than child labor. According to a gradually emerging consensus, child labor is a subset of children's economic activity or children's work that is injurious and therefore targeted for elimination. There is also growing recognition that there are certain intolerable, or "unconditionally worst," forms of child labor that constitute especially serious violations of children's rights, and these should be targeted as a priority for immediate action.

In line with the international definition of employment, the threshold for classifying a child as economically active is spending one hour on economic activity during the reference week. Economic activity is as defined by the 1993 United Nations System of National Accounts (revision 3) and corresponds to the international definition of employment adopted by the Thirteenth International Conference of Labor Statisticians in 1982. Economic activity covers all market production and certain types of nonmarket production, including production of goods for own use. It excludes household chores performed by children in their own household. But some forms of economic activity are not captured by household surveys and so are not reflected in the estimates. These include unconditional forms of child labor, which require different data collection methodologies.

The data used to develop the indicators are from household surveys conducted by the International Labour Organization (ILO), the United Nations Children's Fund (UNICEF), the World Bank, and national statistical offices. These surveys yield a variety of data in education, employment, health, expenditure, and consumption that relate to child work. But they do not provide information on unconditional forms of children's work.

Household survey data generally include information on work type—for example, whether a child is working for pay in cash or in kind or is involved in unpaid work, whether a child is working for someone who is not a member of the household, whether a child is involved in any type of family work (on the farm or in a business), and the like. The ages used in country surveys to define child labor range from 5 to 14 years old. The data in the table have been recalculated to present statistics for children ages 7–14.

Although efforts are made to harmonize the definition of employment and the questions on employment used in survey questionnaires, some differences remain among the survey instruments used to collect the information on working children. Differences exist not only among different household surveys in the same country, but also within the same type of survey carried out in different countries.

Because of the differences in the underlying survey instruments and in survey dates, estimates of the economically active child population are not fully comparable across countries. Caution should be exercised in drawing conclusions concerning relative levels of child economic activity across countries or regions based on the published estimates.

The table aggregates the distribution of working children by the industrial categories of the International Standard Industrial Classification (ISIC): agriculture, industry, and services. The residual category, which includes mining and quarrying; electricity, gas, and water; construction; extraterritorial organization; and other inadequately defined activities, is not presented in the table, and so the broad groups do not add up to 100 percent. The use of either ISIC revision 2 or revision 3 is strictly related to the codification applied by each country in describing the economic activity. The use of two different classifications does not affect the definition of the groups presented in the table.

Child labor is an obstacle to education for all — Box 2.4a

There is broad consensus that the single most effective way to stem the flow of school-age children into work is to extend and improve access to school, so that families have the opportunity to invest in their children's education and it is worthwhile for them to do so. With no access to quality education, millions of children are left to work. More than one in five children ages 5–17 is economically active (see table).

Age group	Economically active children (% of age group)
5–17	20.3
5–14	15.8
15–17	35.2

Source: ILO 2006.

Definitions

• **Survey year** is the year in which the underlying data were collected. • **Economically active children** refer to children involved in economic activity for at least one hour in the reference week of the survey. • **Work only** refers to children involved in economic activity and not attending school. • **Work and study** refer to children attending school in combination with economic activity. • **Employment by economic activity** refers to the distribution of economically active children by the major industrial categories (ISIC revision 2 or revision 3). • **Agriculture** corresponds to division 1 (ISIC revision 2) or categories A and B (ISIC revision 3) and includes agriculture and hunting, forestry and logging, and fishing. • **Manufacturing** corresponds to division 3 (ISIC revision 2) or category D (ISIC revision 3). • **Services** correspond to divisions 6–9 (ISIC revision 2) or categories G–P (ISIC revision 3) and include wholesale and retail trade, hotels and restaurants, transport, financial intermediation, real estate, public administration, education, health and social work, other community services, and private household activity.

Data sources

Estimates are produced by the Understanding Children's Work project based on household survey datasets made available by the ILO's International Programme on the Elimination of Child Labour under its Statistical Monitoring Programme on Child Labour, UNICEF under its Multiple Indicator Cluster Survey program, the World Bank under its Living Standards Measurement Study program, and national statistical offices. Information on how the data were collected and some indication of their reliability can be found at www.ilo.org/public/english/standards/ipec/simpoc/, www.childinfo.org, and www.worldbank.org/lsms. Detailed country statistics can be found at www.ucw-project.org.

2.5 Unemployment

	Unemployment						Long-term unemployment			Unemployment by educational attainment		
	Male % of male labor force		Female % of female labor force		Total % of total labor force		% of total unemployment			% of total unemployment		
	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	Male 2000–03[a]	Female 2000–03[a]	Total 2000–03[a]	Primary 2000–04[a]	Secondary 2000–04[a]	Tertiary 2000–04[a]
Afghanistan	..	..	..	..	..	..	..	..	..	..	..	..
Albania	..	13.2	..	18.3	..	15.2	..	..	..	56.4	38.4	3.4
Algeria	..	19.8	..	21.3	..	20.1	..	..	..	..	..	..
Angola	..	..	..	..	..	..	..	..	..	..	..	..
Argentina	6.4[b]	16.3[b]	7.0[b]	14.7[b]	6.7[b]	15.6[b]	..	..	..	42.8[b]	38.5[b]	17.7[b]
Armenia	..	..	..	..	..	..	72.2	70.8	71.6	5.2	81.5	13.3
Australia	11.3	5.3[b]	9.5	5.5[b]	10.5	5.4[b]	27.1[b]	17.0[b]	22.5[b]	48.3	32.7	19.0
Austria	3.5	4.5	3.8	5.4	3.6	4.9	25.0	23.9	24.5	37.3	55.7	7.0
Azerbaijan	..	..	..	..	..	..	..	..	..	4.6	31.4	64.1
Bangladesh	2.0	4.2	1.9	4.9	1.9	4.3	..	..	..	54.3	22.7	8.4
Belarus	..	..	..	..	..	..	..	..	..	10.2	40.6	49.1
Belgium	4.8	6.6	9.5	8.3	6.7	7.4	44.8	48.2	46.3	43.7	38.1	18.2
Benin	..	..	..	..	..	..	..	..	..	..	..	..
Bolivia	5.5[b]	4.3	5.6[b]	6.9	5.5[b]	5.5	..	..	..	60.2[b]	32.5[b]	4.4[b]
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..	..	..
Botswana	11.7	15.7	17.3	22.3	13.9	18.6	..	..	..	63.8	23.8	..
Brazil	5.4[b]	7.8[b]	7.9[b]	12.3[b]	6.4[b]	9.7[b]	..	..	..	..	..	..
Bulgaria	..	12.5	..	11.5	..	12.1	..	..	..	37.8	50.9	11.4
Burkina Faso	..	..	..	..	..	..	..	..	..	46.8	19.3	5.6
Burundi	0.7	..	0.3	..	0.5	..	..	..	..	..	..	..
Cambodia	..	0.8	..	0.9	..	0.8	..	..	..	..	..	..
Cameroon	..	8.2	..	6.7	..	7.5	..	..	..	..	..	..
Canada	12.1[b]	7.5[b]	10.2[b]	6.8[b]	11.2[b]	7.2[b]	11.4	8.4	10.1	29.0[b]	30.8[b]	40.2[b]
Central African Republic	..	..	..	..	..	..	..	..	..	..	..	..
Chad	..	..	..	..	..	..	..	..	..	..	..	..
Chile	3.9	6.9	5.3	9.5	4.4	7.8	..	..	..	18.5	59.0	21.8
China	..	..	..	..	2.3[b]	4.2	..	..	..	..	..	..
Hong Kong, China	2.0	7.8	1.9	5.6	2.0	6.8	..	..	..	48.6	39.4	10.1
Colombia	6.7[b]	10.6	13.0[b]	17.8	9.4[b]	13.7	..	..	..	26.9	52.9	16.5
Congo, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Congo, Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Costa Rica	3.4	5.4	5.4	8.5	4.0	6.4	8.9	13.3	10.9	62.2	24.1	9.9
Côte d'Ivoire	..	..	..	..	..	..	..	..	..	..	..	..
Croatia	..	11.7	..	14.0	..	12.7	52.9[c]	56.3[c]	54.6[c]	21.5	68.4	9.8
Cuba	..	..	..	..	4.6	3.3	..	..	..	..	..	..
Czech Republic	..	7.0	..	9.9	..	8.3	47.4	51.9	49.9	24.6	71.8	3.5
Denmark	8.3	5.0	9.9	5.4	9.0	5.2	21.8	17.9	19.9	25.9	46.6	25.5
Dominican Republic	11.7	10.5	34.9	30.7	20.3	18.4	2.2	1.3	1.6	..	..	..
Ecuador	6.0[b]	6.6[b]	13.2[b]	11.4[b]	8.9[b]	8.6[b]	..	..	..	28.8	47.7	21.9
Egypt, Arab Rep.	6.4	7.3	17.0	23.2	9.0	11.0	..	..	..	..	..	..
El Salvador	3.9[b]	8.7	4.9[b]	3.9	4.3[b]	6.8	..	..	..	..	..	..
Eritrea	..	..	..	..	..	..	..	..	..	..	..	..
Estonia	3.9	10.4	3.5	8.9	3.7	9.6	..	..	..	20.9	62.1	16.8
Ethiopia	..	15.8[b]	..	31.2[b]	..	23.1[b]	..	..	..	..	..	..
Finland	13.6	8.8	9.7	9.0	11.7	8.9	27.7	21.4	24.7	35.8	46.3	17.5
France	7.9[b]	9.0[b]	12.7[b]	11.1[b]	10.0[b]	9.9[b]	43.1[b]	42.8[b]	42.9[b]	40.6	39.9	17.7
Gabon	..	..	..	..	..	..	..	..	..	..	..	..
Gambia, The	..	..	..	..	..	..	..	..	..	..	..	..
Georgia	..	13.4[b]	..	11.8[b]	..	12.6[b]	..	..	..	5.8	57.6	36.5
Germany	5.3	10.2	8.4	9.3	6.6	9.8	48.3	52.3	50.0	27.1	60.5	12.4
Ghana	..	7.5	..	8.7	..	8.2	..	..	..	..	..	..
Greece	4.9	6.4	12.9	15.9	7.8	10.2	49.2	61.0	56.5	34.2	50.0	15.1
Guatemala	2.6[b]	2.2	4.6[b]	3.7	3.2[b]	2.8	..	..	..	..	..	..
Guinea	..	..	..	..	..	..	..	..	..	..	..	..
Guinea-Bissau	..	..	..	..	..	..	..	..	..	..	..	..
Haiti	11.2	..	13.6	..	12.2	..	..	..	..	..	..	..

2.5 Unemployment

	Unemployment						Long-term unemployment			Unemployment by educational attainment		
	Male % of male labor force		Female % of female labor force		Total % of total labor force		% of total unemployment			% of total unemployment		
	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	Male 2000–03[a]	Female 2000–03[a]	Total 2000–03[a]	Primary 2000–04[a]	Secondary 2000–04[a]	Tertiary 2000–04[a]
Honduras	3.3[b]	4.7[b]	3.0[b]	8.3[b]	3.2[b]	5.9[b]	..	..	..	..	..	..
Hungary	11.0	6.1	8.7	6.1	9.9	6.1	42.2	42.2	42.2	33.5	61.2	5.4
India	..	4.9[b]	..	5.3[b]	..	5.0[b]	..	..	..	27.0	41.1	31.9
Indonesia	2.7	8.1	3.1	12.9	2.9	9.9	..	..	..	46.0	36.6	6.7
Iran, Islamic Rep.	9.5	10.1	24.4	20.4	11.1	11.6	..	..	..	38.3	37.1	19.3
Iraq	..	29.4	..	15.0	..	26.8	..	..	..	..	..	..
Ireland	15.2	4.9	15.2	3.7	15.2	4.4	40.9	26.0	35.4	48.2	24.9	24.0
Israel	9.2	10.2	13.9	11.3	11.2	10.7	..	..	..	20.2	48.8	27.0
Italy	8.1	6.4	17.3	10.5	11.6	8.0	57.5	58.9	58.2	49.4	41.4	7.5
Jamaica	9.4	8.1	22.2	15.7	15.4	11.4	24.4	36.2	31.7	13.0	5.4	6.1
Japan	2.1[b]	4.9[b]	2.2[b]	4.4[b]	2.2[b]	4.7[b]	38.9	24.6	33.5	70.8	53.4	29.2
Jordan	..	11.8	..	16.5	..	12.4	..	..	..	..	..	..
Kazakhstan	..	7.0	..	9.8	..	8.4	..	..	..	7.9	53.2	38.9
Kenya	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	2.8	3.7	2.1	3.1	2.5	3.5	0.7	0.3	0.6	17.0	53.4	29.6
Kuwait	..	..	..	..	..	1.7	..	..	..	27.5	39.9	6.1
Kyrgyz Republic	..	11.2	..	14.3	..	12.5	..	..	..	13.7	67.8	18.5
Lao PDR	..	..	..	..	..	..	..	..	..	..	..	..
Latvia	..	9.0	..	8.4	..	8.7	..	..	..	22.4	68.5	8.8
Lebanon	..	..	..	..	..	..	..	..	..	..	..	..
Lesotho	..	..	..	..	..	..	..	..	..	..	..	..
Liberia	..	..	..	..	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	..	..	..	..	..	..
Lithuania	..	..	..	..	..	8.3	..	..	57.8	15.0	68.5	16.5
Macedonia, FYR	..	36.7	..	37.8	..	37.2	..	..	..	..	..	..
Madagascar	..	3.5	..	5.6	..	4.5	..	..	..	42.7	18.8	6.1
Malawi	..	..	..	..	..	..	..	..	..	..	..	..
Malaysia	..	3.6	..	3.6	3.7	3.5	..	..	..	32.0	48.8	15.6
Mali	..	7.2	..	10.9	..	8.8	..	..	..	..	..	..
Mauritania	..	..	..	..	..	..	..	..	..	..	..	..
Mauritius	3.2	5.8	3.1	13.5	3.1	8.5	..	..	..	71.5[b]	28.2[b]	..
Mexico	2.7	2.9	4.0	3.4	3.1	3.0	1.1	0.8	1.0	13.7	30.1	46.4
Moldova	..	10.0	..	6.3	..	8.1	..	..	..	..	..	..
Mongolia	..	14.3	..	14.1	..	14.2	..	..	..	35.0	45.8	18.4
Morocco	13.0[b]	11.0	25.3[b]	11.8	16.0[b]	11.2	..	..	..	51.5[c]	20.1[c]	19.8[c]
Mozambique	..	..	..	..	..	..	..	..	..	..	..	..
Myanmar	4.7	..	8.8	..	6.0	..	..	..	..	..	..	..
Namibia	20.0	26.8	19.0	35.9	19.0	31.1	..	..	..	..	..	..
Nepal	..	7.4	..	10.7	..	8.8	..	..	..	..	..	..
Netherlands	4.3	4.1	7.3	4.4	5.5	4.3	30.1	28.1	29.2	46.3	35.1	17.4
New Zealand	11.0[b]	3.5[b]	9.6[b]	4.4[b]	10.4[b]	3.9[b]	15.5	11.0	13.3	1.0	48.8	16.0
Nicaragua	11.3	7.6	19.4	8.0	14.4	7.8	..	..	..	50.8[b]	24.8[b]	19.7[b]
Niger	..	..	..	..	..	..	..	..	..	..	..	..
Nigeria	..	..	..	..	..	..	..	..	..	..	..	..
Norway	6.6	4.8	5.1	3.8	5.9	4.4	7.1	5.4	6.4	21.7	54.7	21.7
Oman	..	..	..	..	..	..	..	..	..	..	..	..
Pakistan	3.8	6.6	14.0	12.8	5.2	7.7	..	..	..	14.7	12.3	24.1
Panama	10.8	9.4	22.3	17.2	14.7	12.3	24.0	35.7	29.3	35.9	37.3	26.0
Papua New Guinea	9.0	4.3	5.9	1.3	7.7	2.8	..	..	..	..	..	..
Paraguay	6.4[b]	6.7	3.8[b]	10.1	5.3[b]	8.1	..	..	..	..	..	..
Peru	7.5[b]	9.4[b]	12.5[b]	12.0[b]	9.4[b]	10.5[b]	..	..	..	9.4[b]	61.4[b]	28.6[b]
Philippines	7.9	10.4	9.9	11.7	8.6	10.9	..	..	..	..	..	..
Poland	12.2	16.6	14.7	19.1	13.3	17.7	56.1[c]	59.3[c]	57.7[c]	18.0	75.4	6.7
Portugal	3.5[b]	5.8	5.0[b]	7.6	4.1[b]	6.7[b]	31.2	32.7	32.0	70.7	14.6	8.8
Puerto Rico	19.2	11.7	13.3	9.1	17.0	10.6	..	..	..	..	..	..

2.5 Unemployment

	Unemployment						Long-term unemployment			Unemployment by educational attainment		
	Male % of male labor force		Female % of female labor force		Total % of total labor force		% of total unemployment			% of total unemployment		
	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	1990–92[a]	2000–05[a]	Male 2000–03[a]	Female 2000–03[a]	Total 2000–03[a]	Primary 2000–04[a]	Secondary 2000–04[a]	Tertiary 2000–04[a]
Romania	..	9.0	..	6.9	..	8.0	..	..	..	26.0	66.9	5.4
Russian Federation	5.4	7.8	5.2	8.0	5.3	7.9	..	..	..	..	..	..
Rwanda	..	..	..	..	..	..	..	..	..	60.7	24.1	5.9
Saudi Arabia	7.4	4.7	4.9	14.7	..	..	..	..	..	12.0[c]	49.0[c]	40.0[c]
Senegal	..	..	..	..	..	..	..	..	..	..	..	..
Serbia and Montenegro	..	14.4	..	16.4	..	15.2	..	..	..	..	..	..
Sierra Leone	..	..	..	..	..	..	..	..	..	..	..	..
Singapore	2.7	5.5	2.6	5.3	2.7	5.4	..	..	..	22.4	25.0	38.8
Slovak Republic	..	17.3	..	19.1	..	18.1	60.2	62.1	61.1	24.1[b]	71.7[b]	4.3[b]
Slovenia	..	5.7	..	6.5	..	6.1	..	..	..	26.2	63.9	8.2
Somalia	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	..	23.5[b]	..	31.6[b]	..	27.1[b]	..	..	..	50.2	41.0	5.1
Spain	13.9	8.2	25.8	15.0	18.1	11.0	34.3	43.9	39.8	56.0	20.4	22.7
Sri Lanka	10.1[b]	6.0[b]	19.8[b]	13.5[b]	13.3[b]	8.5[b]	..	..	..	47.2	..	52.8
Sudan	..	..	..	..	..	..	..	..	..	..	..	..
Swaziland	..	..	..	..	..	..	..	..	..	..	..	..
Sweden	6.8	6.9	4.6	6.2	5.7	6.5	19.6	15.3	17.8	23.2	58.1	17.5
Switzerland	2.3	3.9	3.5	4.8	2.8	4.3	21.6	32.6	27.0	28.7	54.5	16.9
Syrian Arab Republic	..	9.0	..	28.3	..	12.3	..	..	..	75.2	10.3	9.8
Tajikistan	..	..	..	..	..	..	..	..	..	..	..	..
Tanzania	2.7[b]	4.4	4.2[b]	5.8	3.5[b]	5.1[b]	..	..	..	..	..	..
Thailand	1.3	1.6	1.5	1.4	1.4	1.5	..	..	..	40.0	47.2	0.2
Togo	..	..	..	..	..	..	..	..	..	..	..	..
Trinidad and Tobago	17.0[b]	7.8[b]	23.9[b]	14.5[b]	19.6[b]	10.4[b]	20.3	34.7	27.6	55.5	40.5	1.8
Tunisia	..	..	..	..	..	14.7	..	..	..	43.4	37.4	10.0
Turkey	8.8	10.3	7.8	10.3	8.5	10.3	36.5[c]	46.9[c]	39.2[c]	55.7[c]	28.1[c]	11.4[c]
Turkmenistan	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	..	2.5	..	3.9	..	3.2	..	..	..	..	..	..
Ukraine	..	8.9	..	8.3	..	8.6	..	..	..	13.5	54.3	32.2
United Arab Emirates	..	2.2	..	2.6	..	2.3	..	..	..	..	..	..
United Kingdom	11.5	5.0	7.3	4.2	9.7	4.6	26.5	17.1	23.0	30.3	44.4	14.6
United States	7.9	5.6	7.0	5.4	7.5	5.5	12.5	11.0	11.8	18.4	34.3	47.3
Uruguay	6.8[b]	13.5[b]	11.8[b]	20.8[b]	9.0[b]	16.8[b]	..	..	..	54.8[b]	31.3[b]	13.9[b]
Uzbekistan	..	..	..	..	..	..	..	..	..	..	..	..
Venezuela, RB	8.2	14.4[b]	6.8	20.3[b]	7.7	16.8[b]	..	..	..	..	..	..
Vietnam	..	1.9	..	2.4	..	2.1	..	..	..	..	..	..
West Bank and Gaza	..	28.1	..	20.1	..	26.8	..	..	..	57.5	14.5	17.6
Yemen, Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Zambia	16.3	..	22.4	..	18.9	..	..	..	..	..	..	..
Zimbabwe	..	10.4	..	6.1	..	8.2	..	..	..	..	..	..
World	.. w	.. w	.. w	.. w	.. w	6.4 w	.. w	.. w	.. w	.. w	.. w	.. w
Low income	..	..	..	..	..	..	..	..	..	..	..	..
Middle income	..	..	..	..	3.9	6.6	..	..	..	..	..	..
Lower middle income	..	..	..	..	3.4	5.9	..	..	..	..	..	..
Upper middle income	6.3	9.6	6.8	10.8	6.4	9.8	..	..	..	37.7	48.2	11.3
Low & middle income	..	..	..	..	..	6.4	..	..	..	..	..	..
East Asia & Pacific	..	..	..	..	2.5	4.2	..	..	..	..	..	..
Europe & Central Asia	..	9.9	..	9.9	..	9.9	..	..	..	..	..	..
Latin America & Carib.	5.4	8.1	8.5	12.0	6.6	9.6	..	..	..	..	..	..
Middle East & N. Africa	..	13.4	..	21.3	..	14.8	..	..	..	..	..	..
South Asia	..	5.1	..	6.2	..	5.4	..	..	..	30.0	34.8	27.4
Sub-Saharan Africa	..	..	..	..	..	..	..	..	..	..	..	..
High income	7.0	6.2	7.9	6.6	7.4	6.4	27.3	23.9	26.0	34.8	39.3	29.7
Europe EMU	7.5	8.2	12.6	10.6	9.5	9.2	44.1	46.4	45.5	40.3	42.5	16.3

a. Data are for the most recent year available. b. Limited coverage. c. Data are for 2005.

2.5 Unemployment

About the data

Unemployment and total employment in an economy are the broadest indicators of economic activity as reflected by the labor market. The International Labour Organization (ILO) defines the unemployed as members of the economically active population who are without work but available for and seeking work, including people who have lost their jobs and those who have voluntarily left work. Some unemployment is unavoidable in all economies. At any time some workers are temporarily unemployed—between jobs as employers look for the right workers and workers search for better jobs. Such unemployment, often called frictional unemployment, results from the normal operation of labor markets.

Changes in unemployment over time may reflect changes in the demand for and supply of labor, but they may also reflect changes in reporting practices. Ironically, low unemployment rates can often disguise substantial poverty in a country, while high unemployment rates can occur in countries with a high level of economic development and low incidence of poverty. In countries without unemployment or welfare benefits, people eke out a living in the informal sector. In countries with well-developed safety nets, workers can afford to wait for suitable or desirable jobs. But high and sustained unemployment indicates serious inefficiencies in the allocation of resources.

The ILO definition of unemployment notwithstanding, reference periods, the criteria for those considered to be seeking work, and the treatment of people temporarily laid off and those seeking work for the first time vary across countries. In many developing countries it is especially difficult to measure employment and unemployment in agriculture. The timing of a survey, for example, can maximize the effects of seasonal unemployment in agriculture. And informal sector employment is difficult to quantify where informal activities are not registered and tracked.

Data on unemployment are drawn from labor force sample surveys and general household sample surveys, censuses, and official estimates, which are generally based on information from different sources and can be combined in many ways. Administrative records, such as social insurance statistics and employment office statistics, are not included in this table because of their limitations in coverage. Labor force surveys generally yield the most comprehensive data because they include groups not covered in other unemployment statistics, particularly people seeking work for the first time. These surveys generally use a definition of unemployment that follows the international recommendations more closely than that used by other sources and therefore generate statistics that are more comparable internationally. But the age group, geographic coverage, and collection methods could differ by country or change over time within a country. For detailed information on breaks in series, consult the original source.

Women tend to be excluded from the unemployment count for various reasons. Women suffer more from discrimination and from structural, social, and cultural barriers that impede them from actively seeking work. Also, women are often responsible for the care of children and the elderly or for other household affairs. They may not be available for work during the short reference period, as they need to make arrangements before starting work. Furthermore, women are considered to be employed when they are working part-time or in temporary jobs in the informal sector, despite the instability of these jobs or their active searching for more secure employment.

Long-term unemployment is measured by the length of time that an unemployed person has been without work and looking for a job. The data in this table are from labor force surveys. The underlying assumption is that shorter periods of joblessness are of less concern, especially when the unemployed are covered by unemployment benefits or similar forms of welfare support. The length of time that a person has been unemployed is difficult to measure, because the ability to recall that time diminishes as the period of joblessness extends. Women's long-term unemployment is likely to be lower in countries where women constitute a large share of the unpaid family workforce. Women in such countries have more access than men to nonmarket work and are more likely to drop out of the labor force and not be counted as unemployed.

Unemployment by level of educational attainment provides insights into the relationship between the educational attainment of workers and unemployment and may be used to draw inferences about changes in employment demand. Information on education attainment is the best available indicator of skill levels of the labor force.

Besides the limitations to comparability raised for measuring unemployment, the different ways of classifying the level of education across countries may also cause inconsistency. The level of education is supposed to be classified according to International Standard Classification of Education 1997 (ISCED97). For more information on ISCED97, see *About the data* for table 2.9.

Definitions

• **Unemployment** refers to the share of the labor force without work but available for and seeking employment. Definitions of labor force and unemployment may differ by country (see *About the data*). • **Long-term unemployment** refers to the number of people with continuous periods of unemployment extending for a year or longer, expressed as a percentage of the total unemployed. • **Unemployment by educational attainment** shows the unemployed by level of educational attainment as a percentage of the total unemployed. The levels of educational attainment accord with the ISCED97 of the United Nations Educational, Cultural, and Scientific Organization.

Data sources

Data on unemployment are from the ILO database Key Indicators of the Labour Market, 4th edition.

2.6 Poverty

	National poverty line								International poverty line				
		Population below the poverty line				Population below the poverty line							
	Survey year	Rural %	Urban %	National %	Survey year	Rural %	Urban %	National %	Survey year	Population below $1 a day %	Poverty gap at $1 a day %	Population below $2 a day %	Poverty gap at $2 a day %
Afganistan		..	..	..		..	..	..		..	..	..	..
Albania	2002	29.6	19.8	25.4		..	..	..	2004[a]	<2	<0.5	10.0	1.6
Algeria	1988	16.6	7.3	12.2	1995	30.3	14.7	22.6	1995[a]	<2	<0.5	15.1	3.8
Angola		..	..	..		..	..	..		..	..	..	..
Argentina	1995	..	28.4		1998		29.9		2004[b]	6.6	2.1	17.4	7.1
Armenia	1998–99	50.8	58.3	55.1	2001	48.7	51.9	50.9	2003[a]	<2	<0.5	31.1	7.1
Australia		..	..	..		..	..	..		..	..	..	..
Austria		..	..	..		..	..	..		..	..	..	..
Azerbaijan	1995	..	..	68.1	2001	42.0	55.0	49.6	2001[a]	3.7	0.6	33.4	9.1
Bangladesh	1995–96	55.2	29.4	51.0	2000	53.0	36.6	49.8	2000[a]	41.3	10.3	84.0	38.3
Belarus	2000	..	..	41.9					2002[a]	<2	<0.5	<2	<0.5
Belgium		..	..	..		..	..	..		..	..	..	..
Benin	1995	25.2	28.5	26.5	1999	33.0	23.3	29.0	2003[a]	30.9	8.2	73.7	31.7
Bolivia	1997	77.3	53.8	63.2	1999	81.7	50.6	62.7	2002[b]	23.2	13.6	42.2	23.2
Bosnia and Herzegovina	2001–02	19.9	13.8	19.5		..	..	..		..	..	..	..
Botswana									1993[a]	28.0	9.9	55.5	26.5
Brazil	1998	51.4	14.7	22.0	2002–03	41.0	17.5	21.5	2004[b]	7.5	3.4	21.2	8.5
Bulgaria	1997	..	..	36.0	2001	..	..	12.8	2003[a]	<2	<0.5	6.1	1.5
Burkina Faso	1998	61.1	22.4	54.6	2003	52.4	19.2	46.4	2003[a]	27.2	7.3	71.8	30.4
Burundi	1990	36.0	43.0	36.4		..	..	..	1998[a]	54.6	22.7	87.6	48.9
Cambodia	1997	40.1	21.1	36.1	2004	38.0	18.0	35.0	1997[a]	34.1	9.7	77.7	34.5
Cameroon	1996	59.6	41.4	53.3	2001	49.9	22.1	40.2	2001[a]	17.1	4.1	50.6	19.3
Canada		..	..	..		..	..	..		..	..	..	..
Central African Republic		..	..	..		..	..	..	1993[a]	66.6	38.1	84.0	58.4
Chad	1995–96	67.0	63.0	64.0		..	..	..		..	..	..	..
Chile	1996	..	..	19.9	1998	..	..	17.0	2003[b]	<2	<0.5	5.6	1.3
China	1996	7.9	<2	6.0	1998	4.6	<2	4.6	2004[a]	9.9	2.1	34.9	12.5
Hong Kong, China		..	..	..		..	..	..		..	..	..	..
Colombia	1995	79.0	48.0	60.0	1999	79.0	55.0	64.0	2003[b]	7.0	3.1	17.8	7.7
Congo, Dem. Rep.		..	..	..		..	..	..		..	..	..	..
Congo, Rep.		..	..	..		..	..	..		..	..	..	..
Costa Rica	1992	25.5	19.2	22.0		..	..	..	2003[b]	3.3	1.6	9.8	4.0
Côte d'Ivoire		..	..	..		..	..	..	2002[a]	14.8	4.1	48.8	18.4
Croatia		..	..	..		..	..	..	2001[a]	<2	<0.5	<2	<0.5
Cuba		..	..	..		..	..	..		..	..	..	..
Czech Republic		..	..	..		..	..	..	1996[b]	<2	<0.5	<2	<0.5
Denmark		..	..	..		..	..	..		..	..	..	..
Dominican Republic	2000	45.3	18.2	27.7	2004	55.7	34.7	42.2	2004[b]	2.8	0.5	16.2	4.9
Ecuador	1995	56.0	19.0	34.0	1998	69.0	30.0	46.0	1998[b]	17.7	7.1	40.8	17.7
Egypt, Arab Rep.	1995–96	23.3	22.5	22.9	1999–00	..	..	16.7	1999–2000[a]	3.1	<0.5	43.9	11.3
El Salvador	1995	64.8	38.9	50.6	2002	49.8	28.5	37.2	2002[b]	19.0	9.3	40.6	17.7
Eritrea	1993–94	..	..	53.0		..	..	..		..	..	..	..
Estonia	1995	14.7	6.8	8.9		..	..	..	2003[a]	<2	<0.5	7.5	1.9
Ethiopia	1995–96	47.0	33.3	45.5	1999–00	45.0	37.0	44.2	1999–2000[a]	23.0	4.8	77.8	29.6
Finland		..	..	..		..	..	..		..	..	..	..
France		..	..	..		..	..	..		..	..	..	..
Gabon		..	..	..		..	..	..		..	..	..	..
Gambia, The	1992	..	..	64.0	1998	61.0	48.0	57.6	1998[a]	59.3	28.8	82.9	51.1
Georgia	2002	55.4	48.5	52.1	2003	52.7	56.2	54.5	2003[a]	6.5	2.1	25.3	8.6
Germany		..	..	..		..	..	..		..	..	..	..
Ghana	1992	..	..	50.0	1998–99	49.9	18.6	39.5	1998–99[a]	44.8	17.3	78.5	40.8
Greece		..	..	..		..	..	..		..	..	..	..
Guatemala	1989	71.9	33.7	57.9	2000	74.5	27.1	56.2	2002[b]	13.5	5.5	31.9	13.8
Guinea	1994	..	..	40.0		..	..	..		..	..	..	..
Guinea Bissau		..	..	..		..	..	..		..	..	..	..
Haiti	1987	..	..	65.0	1995	66.0	..	..	2001[b]	53.9	26.6	78.0	47.4

2.6 Poverty

	National poverty line								International poverty line				
		Population below the poverty line				Population below the poverty line							
	Survey year	Rural %	Urban %	National %	Survey year	Rural %	Urban %	National %	Survey year	Population below $1 a day %	Poverty gap at $1 a day %	Population below $2 a day %	Poverty gap at $2 a day %
Honduras	1998–99	71.2	28.6	52.5	2004	70.4	29.5	50.7	2003[b]	14.9	4.4	35.7	15.1
Hungary	1993	..	..	14.5	1997	..	..	17.3	2002[a]	<2	<0.5	<2	<0.5
India	1993–94	37.3	32.4	36.0	1999–00	30.2	24.7	28.6	2004–05[a]	33.5	7.6	80.0	34.6
Indonesia	1996	..	..	15.7	1999	34.4	16.1	27.1	2002[a]	7.5	0.9	52.4	15.7
Iran, Islamic Rep.		..	..	..		..	..	..	1998[a]	<2	<0.5	7.3	1.5
Iraq		..	..	..		..	..	..		..	..	..	..
Ireland		..	..	..		..	..	..		..	..	..	..
Israel		..	..	..		..	..	..		..	..	..	..
Italy		..	..	..		..	..	..		..	..	..	..
Jamaica	1995	37.0	18.7	27.5	2000	25.1	12.8	18.7	2004[a]	<2	<0.5	14.4	3.3
Japan		..	..	..		..	..	..		..	..	..	..
Jordan	1997	27.0	19.7	21.3	2002	18.7	12.9	14.2	2002–03[a]	<2	<0.5	7.0	1.5
Kazakhstan	1996	39.0	30.0	34.6		..	..	..	2003[a]	<2	<.5	16.0	3.8
Kenya	1994	47.0	29.0	40.0	1997	53.0	49.0	52.0	1997[a]	22.8	5.9	58.3	23.9
Korea, Dem. Rep.		..	..	..		..	..	..		..	..	..	..
Korea, Rep.		..	..	..		..	..	..	1998[b]	<2	<0.5	<2	<0.5
Kuwait		..	..	..		..	..	..		..	..	..	..
Kyrgyz Republic	2001	51.0	41.2	47.6	2003	..	..	41.0	2003[a]	<2	<0.5	21.4	4.4
Lao PDR	1993	48.7	33.1	45.0	1997–98	41.0	26.9	38.6	2002[a]	27.0	6.1	74.1	30.2
Latvia		..	..	..		..	..	..	2003[a]	<2	<0.5	4.7	1.2
Lebanon		..	..	..		..	..	..		..	..	..	..
Lesotho									1995[a]	36.4	19.0	56.1	33.1
Liberia		..	..	..		..	..	..		..	..	..	..
Libya		..	..	..		..	..	..		..	..	..	..
Lithuania		..	..	..		..	..	..	2003[a]	<2	<0.5	7.8	1.8
Macedonia, FYR	2002	25.3	..	21.4	2003	22.3	..	21.7	2003[a]	<2	<0.5	<2	<0.5
Madagascar	1997	76.0	63.2	73.3	1999	76.7	52.1	71.3	2001[a]	61.0	27.9	85.1	51.8
Malawi	1990–91	..	..	54.0	1997–98	66.5	54.9	65.3	2004–05[a]	20.8	4.7	62.9	24.3
Malaysia	1989	..	..	15.5		..	..	..	1997[b]	<2	<0.5	9.3	2.0
Mali	1998	75.9	30.1	63.8		..	..	..	2001[a]	36.1	12.2	72.1	34.2
Mauritania	1996	65.5	30.1	50.0	2000	61.2	25.4	46.3	2000[a]	25.9	7.6	63.1	26.8
Mauritius		..	..	..		..	..	..		..	..	..	..
Mexico	2000	42.4	12.6	24.2	2004	27.9	11.3	17.6	2004[a]	3.0	1.4	11.6	4.2
Moldova	2001	64.1	58.0	62.4	2002	67.2	42.6	48.5	2003[a]	<2	<0.5	20.8	4.7
Mongolia	1998	32.6	39.4	35.6	2002	43.4	30.3	36.1	2002[a]	10.8	2.2	44.6	15.1
Morocco	1990–91	18.0	7.6	13.1	1998–99	27.2	12.0	19.0	1998–99	<2	<0.5	14.3	3.1
Mozambique	1996–97	71.3	62.0	69.4		..	..	..	2002–03	36.2	11.6	74.1	34.9
Myanmar		..	..	..		..	..	..		..	..	..	..
Namibia		..	..	..		..	..	..	1993[b]	34.9	14.0	55.8	30.4
Nepal	1995–96	43.3	21.6	41.8	2003–04	34.6	9.6	30.9	2003–04[a]	24.1	5.4	68.53	26.79
Netherlands		..	..	..		..	..	..		..	..	..	..
New Zealand		..	..	..		..	..	..		..	..	..	..
Nicaragua	1993	76.1	31.9	50.3	1998	68.5	30.5	47.9	2001[a]	45.1	16.7	79.9	41.2
Niger	1989–93	66.0	52.0	63.0		..	..	..	1995[a]	60.6	34.0	85.8	54.6
Nigeria	1985	49.5	31.7	43.0	1992–93	36.4	30.4	34.1	2003[a]	70.8	34.5	92.4	59.5
Norway		..	..	..		..	..	..		..	..	..	..
Oman		..	..	..		..	..	..		..	..	..	..
Pakistan	1993	33.4	17.2	28.6	1998–99	35.9	24.2	32.6	2002[a]	17.0	3.1	73.6	26.1
Panama	1997	64.9	15.3	37.3		..	..	..	2003[b]	7.4	2.1	18.0	7.5
Papua New Guinea	1996	41.3	16.1	37.5		..	..	..		..	..	..	..
Paraguay	1991	28.5	19.7	21.8		..	..	..	2003[b]	13.6	5.6	29.8	13.8
Peru	2001	77.1	42.0	54.3	2004	72.1	42.9	53.1	2003[b]	10.5	2.9	30.6	11.9
Philippines	1994	53.1	28.0	40.6	1997	50.7	21.5	36.8	2002[a]	14.8	2.9	43.0	16.3
Poland	1993	..	..	23.8		..	..	..	2002[a]	<2	<0.5	<2	<0.5
Portugal		..	..	..		..	..	..		..	..	..	..
Puerto Rico		..	..	..		..	..	..		..	..	..	..

2.6 Poverty

	National poverty line								International poverty line				
		Population below the poverty line				Population below the poverty line							
	Survey year	Rural %	Urban %	National %	Survey year	Rural %	Urban %	National %	Survey year	Population below $1 a day %	Poverty gap at $1 a day %	Population below $2 a day %	Poverty gap at $2 a day %
Romania	1994	27.9	20.4	21.5		..	..	..	2003[a]	<2	0.5	12.9	3.0
Russian Federation	1994	..	..	30.9		..	..	..	2002[a]	<2	<0.5	12.1	3.1
Rwanda	1993	..	..	51.2	1999–00	65.7	14.3	60.3	2000[a]	60.3	25.6	87.8	51.5
Saudi Arabia		..	..	..		..	..	..		..	..	..	..
Senegal	1992	40.4	23.7	33.4		..	..	..	2001[a]	17.0	3.6	56.2	20.9
Serbia and Montenegro		..	..	..		..	..	..		..	..	..	..
Sierra Leone	1989	..	..	82.8	2003–04	79.0	56.4	70.2	1989[a]	57.0	39.5	74.5	51.8
Singapore		..	..	..		..	..	..		..	..	..	..
Slovak Republic		..	..	..		..	..	..	1996[b]	<2	<0.5	2.9	0.8
Slovenia		..	..	..		..	..	..	1998[a]	<2	<0.5	<2	<0.5
Somalia		..	..	..		..	..	..		..	..	..	..
South Africa		..	..	..		..	..	..	2000[a]	10.7	1.7	34.1	12.6
Spain		..	..	..		..	..	..		..	..	..	..
Sri Lanka	1990–91	22.0	15.0	20.0	1995–96	27.0	15.0	25.0	2002[a]	5.6	0.8	41.6	11.9
Sudan		..	..	..		..	..	..		..	..	..	..
Swaziland		..	..	..		..	..	..	2000–01[a]	47.7	19.4	77.8	42.4
Sweden		..	..	..		..	..	..		..	..	..	..
Switzerland		..	..	..		..	..	..		..	..	..	..
Syrian Arab Republic		..	..	..		..	..	..		..	..	..	..
Tajikistan		..	..	..		..	..	..	2003[a]	7.4	1.3	42.8	13.0
Tanzania	1991	40.8	31.2	38.6	2000–01	38.7	29.5	35.7	2000–01[a]	57.8	20.7	89.9	49.3
Thailand	1994	..	..	9.8	1998	..	..	13.6	2002[a]	<2	<0.5	25.2	6.2
Togo	1987–89	..	..	32.3		..	..	..		..	..	..	..
Trinidad and Tobago	1992	20.0	24.0	21.0		..	..	..	1992[b]	12.4	3.5	39.0	14.6
Tunisia	1990	13.1	3.5	7.4	1995	13.9	3.6	7.6	2000[a]	<2	<0.5	6.6	1.3
Turkey	1994	..	..	28.3	2002	34.5	22.0	27.0	2003[a]	3.4	0.8	18.7	5.7
Turkmenistan		..	..	..		..	..	..		..	..	..	..
Uganda	1999–2000	37.4	9.6	33.8	2002–03	41.7	12.2	37.7		..	..	..	..
Ukraine	2000	34.9	..	31.5	2003	28.4	..	19.5	2003[a]	<2	<0.5	4.9	0.9
United Arab Emirates		..	..	..		..	..	..		..	..	..	..
United Kingdom		..	..	..		..	..	..		..	..	..	..
United States		..	..	..		..	..	..		..	..	..	..
Uruguay	1994	..	20.2	..	1998	..	24.7	..	2003[b]	<2	<0.5	5.7	1.6
Uzbekistan	2000	30.5	22.5	27.5		..	..	..	2003[a]	<2	<0.5	<2	0.6
Venezuela, RB	1989	..	..	31.3		..	..	..	2003[b]	18.5	8.9	40.1	19.2
Vietnam	1998	45.5	9.2	37.4	2002	35.6	6.6	28.9		..	..	..	..
West Bank and Gaza		..	..	..		..	..	..		..	..	..	..
Yemen, Rep.	1998	45.0	30.8	41.8		..	..	..	1998[a]	15.7	4.5	45.2	15.0
Zambia	1998	83.1	56.0	72.9	2004	78.0	53.0	68.0	2004[a]	63.8	32.6	87.2	55.2
Zimbabwe	1990–91	35.8	3.4	25.8	1995–96	48.0	7.9	34.9	1995–96[a]	56.1	24.2	83.0	48.2

a. Expenditure base. b. Income base.

Regional poverty estimates 2.6a

Region	1981	1984	1987	1990	1993	1996	1999	2002	2004[a]
People living on less than $1 a day (millions)									
East Asia & Pacific	796	564	429	476	420	279	277	227	169
China	634	425	310	374	334	211	223	177	128
Europe & Central Asia	3	2	2	2	17	21	18	6	4
Latin America & Caribbean	39	51	50	45	39	43	49	48	47
Middle East & North Africa	9	7	6	5	5	4	6	5	4
South Asia	473	457	469	479	440	459	475	485	462
Sub-Saharan Africa	168	200	223	240	252	286	296	296	298
Total	**1,489**	**1,281**	**1,179**	**1,247**	**1,172**	**1,093**	**1,120**	**1,067**	**986**
Excluding China	855	856	868	873	838	881	897	890	857
Share of people living on less than $1 a day (%)									
East Asia & Pacific	57.7	39.0	28.2	29.8	25.2	16.1	15.5	12.3	9.0
China	63.8	41.0	28.6	33.0	28.4	17.4	17.8	13.8	9.9
Europe & Central Asia	0.7	0.5	0.4	0.5	3.6	4.4	3.8	1.3	0.9
Latin America & Caribbean	10.8	13.1	12.1	10.2	8.4	8.9	9.7	9.1	8.6
Middle East & North Africa	5.1	3.8	3.1	2.3	1.9	1.7	2.1	1.7	1.5
South Asia	51.6	46.6	44.9	43.0	37.1	36.6	35.8	34.7	32.0
Sub-Saharan Africa	42.3	46.2	47.2	46.7	45.5	47.7	45.8	42.6	41.1
Total	**40.6**	**33.0**	**28.7**	**28.7**	**25.6**	**22.7**	**22.3**	**20.4**	**18.4**
Excluding China	32.0	30.1	28.7	27.1	24.6	24.6	23.8	22.6	21.1
People living on less than $2 a day (millions)									
East Asia & Pacific	1,170	1,116	1,041	1,113	1,083	908	883	766	684
China	876	819	744	819	803	649	628	524	452
Europe & Central Asia	20	17	14	20	78	85	88	61	46
Latin America & Caribbean	104	126	122	115	111	122	128	131	121
Middle East & North Africa	51	49	50	49	52	55	64	61	59
South Asia	818	853	904	954	976	1,035	1,073	1,124	1,124
Sub-Saharan Africa	295	333	365	396	422	458	491	513	522
Total	**2,457**	**2,494**	**2,496**	**2,647**	**2,722**	**2,664**	**2,727**	**2,665**	**2,556**
Excluding China	1,581	1,675	1,752	1,828	1,919	2,014	2,099	2,131	2,104
Share of people living on less than $2 a day (%)									
East Asia & Pacific	84.8	77.2	68.5	69.7	65.0	52.5	49.3	41.7	36.6
China	88.1	79.0	68.6	72.2	68.1	53.3	50.1	40.9	34.9
Europe & Central Asia	4.6	3.9	3.1	4.3	16.5	18.0	18.6	12.9	9.8
Latin America & Caribbean	28.4	32.2	29.6	26.2	24.1	25.2	25.3	24.8	22.2
Middle East & North Africa	29.2	25.6	24.2	21.7	21.4	21.4	23.6	21.1	19.7
South Asia	89.1	87.1	86.6	85.7	82.4	82.4	80.8	80.3	77.7
Sub-Saharan Africa	74.5	77.0	77.4	77.1	76.1	76.4	75.8	73.8	72.0
Total	**67.1**	**64.3**	**60.7**	**60.8**	**59.4**	**55.5**	**54.4**	**50.8**	**47.7**
Excluding China	59.3	58.9	57.9	56.8	56.4	56.2	55.8	54.1	51.8

a. Preliminary estimate.

2.6 Poverty

About the data

The World Bank produced its first global poverty estimates for developing countries for *World Development Report 1990* using household survey data for 22 countries (Ravallion, Datt, and van de Walle 1991). Incorporating survey data collected during the last 17 years, the database has expanded considerably and now includes more than 550 surveys representing about 100 developing countries. Some 1.1 million randomly sampled households were interviewed in these surveys, representing 93 percent of the population of developing countries. The surveys asked detailed questions on sources of income and how it was spent and on other household characteristics such as the number of people sharing that income. Most interviews were conducted by staff of government statistics offices. Along with improvements in data coverage and quality, the underlying methodology has also improved, resulting in better and more comprehensive estimates.

Data availability

Since 1979 there has been considerable expansion in the number of countries that field such surveys, the frequency of the surveys, and the quality of their data. The number of data sets rose dramatically from a mere 10 between 1979 and 1981 to 162 between 2000 and 2004. The drop to 30 available surveys after 2002 reflects the lag between the time data are collected and the time they become available for analysis, not a reduction in data collection. Data coverage is improving in all regions, but the Middle East and North Africa continues to lag, with only three countries having at least one data set available since 2000. A complete overview of data availability by year and country can be obtained at http://iresearch.worldbank.org/povcalnet/.

Data quality

The problems of estimating poverty and comparing poverty rates do not end with data availability. Several other issues, some related to data quality, also arise in measuring household living standards from survey data. One relates to the choice of income or consumption as a welfare indicator. Income is generally more difficult to measure accurately, and consumption comes closer to the notion of standard of living. And income can vary over time even if the standard of living does not. But consumption data are not always available. Another issue is that household surveys can differ widely, for example, in the number of consumer goods they identify. And even similar surveys may not be strictly comparable because of differences in timing or the quality and training of survey enumerators.

Comparisons of countries at different levels of development also pose a potential problem because of differences in the relative importance of consumption of nonmarket goods. The local market value of all consumption in kind (including own production, particularly important in underdeveloped rural economies) should be included in total consumption expenditure. Similarly, imputed profit from the production of nonmarket goods should be included in income. This is not always done, though such omissions were a far bigger problem in surveys before the 1980s. Most survey data now include valuations for consumption or income from own production. Nonetheless, valuation methods vary. For example, some surveys use the price in the nearest market, while others use the average farmgate selling price.

Whenever possible, the table uses consumption data in deciding who is poor and income surveys only when consumption data are unavailable. In recent editions there has been a change in how income surveys are used. In the past, average household income was adjusted to accord with consumption and income data from national accounts. But when this approach was tested using data for some 20 countries for which income and consumption expenditure data were both available from the same surveys, income was found to yield a higher mean than consumption but also higher inequality. When poverty measures based on consumption and income were compared, these two effects roughly cancelled each other out: statistically, there was no significant difference. So recent editions use income data to estimate poverty directly, without adjusting average income measures.

International poverty lines

International comparisons of poverty estimates entail both conceptual and practical problems. Countries have different definitions of poverty, and consistent comparisons across countries can be difficult. Local poverty lines tend to have higher purchasing power in rich countries, where more generous standards are used, than in poor countries. Is it reasonable to treat two people with the same standard of living—in terms of their command over commodities—differently because one happens to live in a better-off country?

Poverty measures based on an international poverty line attempt to hold the real value of the poverty line constant across countries, as is done when making comparisons over time. The commonly used $1 a day standard, measured in 1985 international prices and adjusted to local currency using purchasing power parities (PPPs), was chosen for the World Bank's *World Development Report 1990: Poverty* because it is typical of the poverty lines in low-income countries. PPP exchange rates, such as those from the Penn World Tables or the World Bank, are used because they take into account the local prices of goods and services not traded internationally. But PPP rates were designed for comparing aggregates from national accounts, not for making international poverty comparisons. As a result, there is no certainty that an international poverty line measures the same degree of need or deprivation across countries.

Early editions of *World Development Indicators* used PPPs from the Penn World Tables. Recent editions use 1993 consumption PPP estimates produced by the World Bank. Recalculated in 1993 PPP terms, the original international poverty line of $1 a day in 1985 PPP terms is now about $1.08 a day. The 2005 round of the International Comparison Program will provide new consumption PPPs in the coming year. Any revisions in the PPP of a country to incorporate better price indexes can produce dramatically different poverty lines in local currency.

Issues also arise when comparing poverty measures within countries. For example, the cost of living is typically higher in urban than in rural areas. One reason is that food staples tend to be more expensive in urban areas. So the urban monetary poverty line should be higher than the rural poverty line. But it is not always clear that the difference between urban and rural poverty lines found in practice reflects only differences in the cost of living. In some countries the urban poverty line in common use has a higher real value—meaning that it allows the purchase of more commodities for consumption—than does the rural poverty line. Sometimes the difference has been so large as to imply that the incidence of poverty is greater in urban than in rural areas, even though the reverse is found when adjustments are made only for differences in the cost of living. As with international comparisons, when the real value of the poverty line varies it is not clear how meaningful such urban-rural comparisons are.

By combining all this information, a team in the World Bank's Development Research Group calculates the number of people living below various international poverty lines, as well as other poverty and inequality measures that are published in *World*

Development Indicators. The database is updated annually as new survey data become available, and a major reassessment of progress against poverty is made about every three years.

Do it yourself: PovcalNet

Recently, this research team developed *PovcalNet*, an interactive Web-based computational tool that allows users to replicate the calculations by the World Bank's researchers in estimating the extent of absolute poverty in the world. *PovcalNet* is self contained and powered by reliable built-in software that performs the relevant calculations from a primary database. The underlying software can also be downloaded from the site and used with distributional data of various formats. The *PovcalNet* primary database consists of distributional data calculated directly from household survey data. Detailed information for each of these is also available from the site.

Estimation from distributional data requires an interpolation method. The method chosen was Lorenz curves with flexible functional forms, which have proved reliable in past work. The Lorenz curve can be graphed as the cumulative percentages of total consumption or income against the cumulative number of people, starting with the poorest individual. The empirical Lorenz curves estimated by *PovcalNet* are weighted by household size, so they are based on percentiles of population, not households.

PovcalNet also allows users to calculate poverty measures under different assumptions. For example, instead of $1 a day, users can specify a different poverty line, say $1.50 or $3. Users can also specify different PPP rates and aggregate the estimates using alternative country groupings (for example, UN country groupings or groupings based on average incomes) or a selected set of individual countries. *PovcalNet* is available online at http://iresearch.worldbank.org/povcalnet/

Definitions

• **Survey year** is the year in which the underlying data were collected. • **Rural poverty rate** is the percentage of the rural population living below the national rural poverty line. • **Urban poverty rate** is the percentage of the urban population living below the national urban poverty line. • **National poverty rate** is the percentage of the population living below the national poverty line. National estimates are based on population-weighted subgroup estimates from household surveys. • **Population below $1 a day** and **population below $2 a day** are the percentages of the population living on less than $1.08 a day and $2.15 a day at 1993 international prices. As a result of revisions in PPP exchange rates, poverty rates for individual countries cannot be compared with poverty rates reported in earlier editions. • **Poverty gap** is the mean shortfall from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.

Data sources

The poverty measures are prepared by the World Bank's Development Research Group. The national poverty lines are based on the World Bank's country poverty assessments. The international poverty lines are based on nationally representative primary household surveys conducted by national statistical offices or by private agencies under the supervision of government or international agencies and obtained from government statistical offices and World Bank Group country departments. The World Bank Group has prepared an annual review of its poverty work since 1993. For details on data sources and methods used in deriving the World Bank's latest estimates, see Chen and Ravallion's "How Have the World's Poorest Fared Since the Early 1980s?" (2004).

2.7 Distribution of income or consumption

	Survey year	Gini index	Percentage share of income or consumption						
			Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Afghanistan		..	..	..	..	..	..	..	..
Albania	2004[a]	31.1	3.4	8.2	12.6	17.0	22.6	39.5	24.4
Algeria	1995[a]	35.3	2.8	7.0	11.6	16.1	22.7	42.6	26.8
Angola		..	..	..	..	..	..	..	..
Argentina[b]	2004[c]	51.3	0.9	3.1	7.6	12.8	21.1	55.4	38.2
Armenia	2003[a]	33.8	3.6	8.5	12.3	15.7	20.6	42.8	29.0
Australia	1994[c]	35.2	2.0	5.9	12.0	17.2	23.6	41.3	25.4
Austria	2000[c]	29.1	3.3	8.6	13.3	17.4	22.9	37.8	23.0
Azerbaijan	2001[a]	36.5	3.1	7.4	11.5	15.3	21.2	44.5	29.5
Bangladesh	2000[a]	33.4	3.7	8.6	12.1	15.6	21.0	42.7	27.9
Belarus	2002[a]	29.7	3.4	8.5	13.2	17.3	22.7	38.3	23.5
Belgium	2000[c]	33.0	3.4	8.5	13.0	16.3	20.8	41.4	28.1
Benin	2003[a]	36.5	3.1	7.4	11.3	15.4	21.5	44.5	29.0
Bolivia	2002[c]	60.1	0.3	1.5	5.9	10.9	18.7	63.0	47.2
Bosnia and Herzegovina	2001[a]	26.2	3.9	9.5	14.2	17.9	22.6	35.8	21.4
Botswana	1993[a]	60.5	1.2	3.2	6.0	9.7	16.0	65.1	51.0
Brazil	2004[c]	57.0	0.9	2.8	6.4	11.0	18.7	61.1	44.8
Bulgaria	2003[a]	29.2	3.4	8.7	13.7	17.2	22.1	38.3	23.9
Burkina Faso	2003[a]	39.5	2.8	6.9	10.9	14.5	20.5	47.2	32.2
Burundi	1998[a]	42.4	1.7	5.1	10.3	15.1	21.5	48.0	32.8
Cambodia	2004[a]	41.7	2.9	6.8	10.2	13.7	19.6	49.6	34.8
Cameroon	2001[a]	44.6	2.3	5.6	9.3	13.7	20.4	50.9	35.4
Canada	2000[c]	32.6	2.6	7.2	12.7	17.2	23.0	39.9	24.8
Central African Republic	1993[a]	61.3	0.7	2.0	4.9	9.6	18.5	65.0	47.7
Chad		..	..	..	..	..	..	..	..
Chile	2003[c]	54.9	1.4	3.8	7.3	11.1	17.8	60.0	45.0
China	2004[c]	46.9	1.6	4.3	8.5	13.7	21.7	51.9	34.9
Hong Kong, China	1996[c]	43.4	2.0	5.3	9.4	13.9	20.7	50.7	34.9
Colombia	2003[c]	58.6	0.74	2.48	6.20	10.60	18.05	62.67	46.90
Congo, Dem. Rep.		..	..	..	..	..	..	..	..
Congo, Rep.		..	..	..	..	..	..	..	..
Costa Rica	2003[c]	49.8	1.0	3.5	8.2	13.1	21.2	54.1	37.4
Côte d'Ivoire	2002[a]	44.6	2.0	5.2	9.1	13.7	21.3	50.7	34.0
Croatia	2001[a]	29.0	3.4	8.3	12.8	16.8	22.6	39.6	24.5
Cuba		..	..	..	..	..	..	..	..
Czech Republic	1996[c]	25.4	4.3	10.3	14.5	17.7	21.7	35.9	22.4
Denmark	1997[c]	24.7	2.6	8.3	14.7	18.2	22.9	35.8	21.3
Dominican Republic	2004[c]	51.6	1.4	4.0	7.8	12.1	19.3	56.7	41.1
Ecuador	1998[c]	53.6	0.9	3.3	7.5	11.7	19.4	58.0	41.6
Egypt, Arab Rep.	1999–2000[a]	34.4	3.7	8.6	12.1	15.4	20.4	43.6	29.5
El Salvador	2002[c]	52.4	0.7	2.7	7.5	12.8	21.2	55.9	38.8
Eritrea		..	..	..	..	..	..	..	..
Estonia	2003[a]	35.8	2.5	6.7	11.8	16.3	22.4	42.8	27.6
Ethiopia	1999–2000[a]	30.0	3.9	9.1	13.2	16.8	21.5	39.4	25.5
Finland	2000[c]	26.9	4.0	9.6	14.1	17.5	22.1	36.7	22.6
France	1995[c]	32.7	2.8	7.2	12.6	17.2	22.8	40.2	25.1
Gabon		..	..	..	..	..	..	..	..
Gambia, The	1998[a]	50.2	1.8	4.8	8.7	12.8	20.3	53.4	37.0
Georgia	2003[a]	40.4	2.0	5.6	10.5	15.3	22.3	46.4	30.3
Germany	2000[c]	28.3	3.2	8.5	13.7	17.8	23.1	36.9	22.1
Ghana	1998–99[a]	40.8	2.1	5.6	10.1	14.9	22.9	46.6	30.0
Greece	2000[c]	34.3	2.5	6.7	11.9	16.8	23.0	41.5	26.0
Guatemala	2002[c]	55.1	0.9	2.9	7.0	11.6	19.0	59.5	43.4
Guinea	2003[a]	38.6	2.9	7.0	10.8	14.7	21.4	46.1	30.7
Guinea-Bissau	1993[a]	47.0	2.1	5.2	8.8	13.1	19.4	53.4	39.3
Haiti	2001[c]	59.2	0.7	2.4	6.2	10.4	17.7	63.4	47.7

2.7 Distribution of income or consumption

	Survey year	Gini index	Percentage share of income or consumption						
			Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Honduras	2003[c]	53.8	1.2	3.4	7.1	11.6	19.6	58.3	42.2
Hungary	2002[a]	26.9	4.0	9.5	13.9	17.6	22.4	36.5	22.2
India	2004–05[a]	36.8	3.6	8.1	11.3	14.9	20.4	45.3	31.1
Indonesia	2002[a]	34.3	3.6	8.4	11.9	15.4	21.0	43.3	28.5
Iran, Islamic Rep.	1998[a]	43.0	2.0	5.1	9.4	14.1	21.5	49.9	33.7
Iraq	..	..	..	..	..	..	..	..	..
Ireland	2000[c]	34.3	2.9	7.4	12.3	16.3	21.9	42.0	27.2
Israel	2001[c]	39.2	2.1	5.7	10.5	15.9	23.0	44.9	28.8
Italy	2000[c]	36.0	2.3	6.5	12.0	16.8	22.8	42.0	26.8
Jamaica	2004[a]	45.5	2.1	5.3	9.2	13.2	20.6	51.6	35.8
Japan	1993[c]	24.9	4.8	10.6	14.2	17.6	22.0	35.7	21.7
Jordan	2002–03[a]	38.8	2.7	6.7	10.8	14.9	21.3	46.3	30.6
Kazakhstan	2003[a]	33.9	3.0	7.4	11.9	16.4	22.8	41.5	25.9
Kenya	1997[a]	42.5	2.5	6.0	9.8	14.3	20.8	49.1	33.9
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..
Korea, Rep.	1998[c]	31.6	2.9	7.9	13.6	18.0	23.1	37.5	22.5
Kuwait	..	..	..	..	..	..	..	..	..
Kyrgyz Republic	2003[a]	30.3	3.8	8.9	12.8	16.4	22.5	39.4	24.3
Lao PDR	2002[a]	34.6	3.4	8.1	11.9	15.6	21.1	43.3	28.5
Latvia	2003[a]	37.7	2.5	6.6	11.2	15.5	22.0	44.7	29.1
Lebanon	..	..	..	..	..	..	..	..	..
Lesotho	1995[a]	63.2	0.5	1.5	4.3	8.9	18.8	66.5	48.3
Liberia	..	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	..	..	..
Lithuania	2003[a]	36.0	2.7	6.8	11.6	16.0	22.3	43.2	27.7
Macedonia, FYR	2003[a]	39.0	2.4	6.1	10.8	15.5	22.2	45.5	29.6
Madagascar	2001[a]	47.5	1.9	4.9	8.5	12.7	20.4	53.5	36.6
Malawi	2004–05[a]	39.0	2.9	7.0	10.8	14.8	20.7	46.6	31.8
Malaysia	1997[c]	49.2	1.7	4.4	8.1	12.9	20.3	54.3	38.4
Mali	2001[a]	40.1	2.4	6.1	10.2	14.7	22.2	46.6	30.2
Mauritania	2000[a]	39.0	2.5	6.2	10.6	15.2	22.3	45.7	29.5
Mauritius	..	..	..	..	..	..	..	..	..
Mexico	2004[a]	46.1	1.6	4.3	8.3	12.6	19.7	55.1	39.4
Moldova	2003[a]	33.2	3.2	7.8	12.2	16.5	22.1	41.4	26.4
Mongolia	2002[a]	32.8	3.0	7.5	12.2	16.8	23.1	40.5	24.6
Morocco	1998–99[a]	39.5	2.6	6.5	10.6	14.8	21.3	46.6	30.9
Mozambique	2002–03[a]	47.3	2.1	5.4	9.3	13.0	18.7	53.6	39.4
Myanmar	..	..	..	..	..	..	..	..	..
Namibia	1993[c]	74.3	0.5	1.4	3.0	5.4	11.5	78.7	64.5
Nepal	2003–04[a]	47.2	2.6	6.0	9.0	12.4	18.0	54.6	40.6
Netherlands	1999[c]	30.9	2.5	7.6	13.2	17.2	23.3	38.7	22.9
New Zealand	1997[c]	36.2	2.2	6.4	11.4	15.8	22.6	43.8	27.8
Nicaragua	2001[a]	43.1	2.2	5.6	9.8	14.2	21.1	49.3	33.8
Niger	1995[a]	50.5	0.8	2.6	7.1	13.9	23.1	53.3	35.4
Nigeria	2003[a]	43.7	1.9	5.0	9.6	14.5	21.7	49.2	33.2
Norway	2000[c]	25.8	3.9	9.6	14.0	17.2	22.0	37.2	23.4
Oman	..	..	..	..	..	..	..	..	..
Pakistan	2002[a]	30.6	4.0	9.3	13.0	16.3	21.1	40.3	26.3
Panama	2003[c]	56.1	0.7	2.5	6.6	11.4	19.6	59.9	43.0
Papua New Guinea	1996[a]	50.9	1.7	4.5	7.9	11.9	19.2	56.5	40.5
Paraguay	2003[c]	58.4	0.7	2.4	6.3	10.8	18.6	61.9	46.1
Peru	2003[c]	52.0	1.3	3.7	7.7	12.2	19.7	56.7	40.9
Philippines	2003[a]	44.5	2.2	5.4	9.1	13.6	21.3	50.6	34.2
Poland	2002[a]	34.5	3.1	7.5	11.9	16.1	22.2	42.2	27.0
Portugal	1997[c]	38.5	2.0	5.8	11.0	15.5	21.9	45.9	29.8
Puerto Rico	..	..	..	..	..	..	..	..	..

2.7 Distribution of income or consumption

	Survey year	Gini index	Percentage share of income or consumption						
			Lowest 10%	Lowest 20%	Second 20%	Third 20%	Fourth 20%	Highest 20%	Highest 10%
Romania	2003[a]	31.0	3.3	8.1	12.9	17.1	22.7	39.2	24.4
Russian Federation	2002[a]	39.9	2.4	6.1	10.5	14.9	21.8	46.6	30.6
Rwanda	2000[a]	46.8	2.1	5.3	9.1	13.2	19.4	53.0	38.2
Saudi Arabia		..	..	..	..	..	..	..	..
Senegal	2001[a]	41.3	2.7	6.6	10.3	14.2	20.6	48.4	33.4
Serbia and Montenegro	2003[a]	30.0	3.4	8.3	13.0	17.3	23.0	38.4	23.4
Sierra Leone	1989[a]	62.9	0.5	1.1	2.0	9.8	23.7	63.4	43.6
Singapore	1998[c]	42.5	1.9	5.0	9.4	14.6	22.0	49.0	32.8
Slovak Republic	1996[c]	25.8	3.1	8.8	14.9	18.7	22.8	34.8	20.9
Slovenia	1998[a]	28.4	3.6	9.1	14.2	18.1	22.9	35.7	21.4
Somalia		..	..	..	..	..	..	..	..
South Africa	2000[a]	57.8	1.4	3.5	6.3	10.0	18.0	62.2	44.7
Spain	2000[c]	34.7	2.6	7.0	12.1	16.4	22.5	42.0	26.6
Sri Lanka	2002[a]	40.2	3.0	7.0	10.5	14.2	20.4	48.0	32.7
Sudan		..	..	..	..	..	..	..	..
Swaziland	2000–01[c]	50.4	1.6	4.3	8.2	12.3	18.9	56.3	40.7
Sweden	2000[c]	25.0	3.6	9.1	14.0	17.6	22.7	36.6	22.2
Switzerland	2000[c]	33.7	2.9	7.6	12.2	16.3	22.6	41.3	25.9
Syrian Arab Republic		..	..	..	..	..	..	..	..
Tajikistan	2003[a]	32.6	3.3	7.9	12.3	16.5	22.4	40.8	25.6
Tanzania	2000–01[a]	34.6	2.9	7.3	12.0	16.1	22.3	42.4	26.9
Thailand	2002[a]	42.0	2.7	6.3	9.9	14.0	20.8	49.0	33.4
Togo		..	..	..	..	..	..	..	..
Trinidad and Tobago	1992[c]	38.9	2.2	5.9	10.8	15.3	23.1	44.9	28.8
Tunisia	2000[a]	39.8	2.3	6.0	10.3	14.8	21.7	47.3	31.5
Turkey	2003[a]	43.6	2.0	5.3	9.7	14.2	21.0	49.7	34.1
Turkmenistan	1998[a]	40.8	2.6	6.1	10.2	14.7	21.5	47.5	31.7
Uganda	2002[a]	45.7	2.3	5.7	9.4	13.2	19.1	52.5	37.7
Ukraine	2003[a]	28.1	3.9	9.2	13.6	17.3	22.4	37.5	23.0
United Arab Emirates		..	..	..	..	..	..	..	`
United Kingdom	1999[c]	36.0	2.1	6.1	11.4	16.0	22.5	44.0	28.5
United States	2000[c]	40.8	1.9	5.4	10.7	15.7	22.4	45.8	29.9
Uruguay[b]	2003[c]	44.9	1.9	5.0	9.1	14.0	21.5	50.5	34.0
Uzbekistan	2003[a]	36.8	2.8	7.2	11.7	15.4	21.0	44.7	29.6
Venezuela, RB	2003[c]	48.2	0.7	3.3	8.7	13.9	22.0	52.1	35.2
Vietnam	2004[a]	34.4	4.2	9.0	11.4	14.7	20.5	44.3	28.8
West Bank and Gaza		..	..	..	..	..	..	..	..
Yemen, Rep.	1998[a]	33.4	3.0	7.4	12.2	16.7	22.5	41.2	25.9
Zambia	2004[a]	50.8	1.2	3.6	7.9	12.6	20.8	55.1	38.8
Zimbabwe	1995–96[a]	50.1	1.8	4.6	8.1	12.2	19.3	55.7	40.3

a. Refers to expenditure shares by percentiles of population, ranked by per capita expenditure. b. Urban data. c. Refers to income shares by percentiles of population, ranked by per capita income.

Distribution of income or consumption 2.7

About the data

Inequality in the distribution of income is reflected in the percentage shares of income or consumption accruing to portions of the population ranked by income or consumption levels. The portions ranked lowest by personal income receive the smallest shares of total income. The Gini index provides a convenient summary measure of the degree of inequality. Data on the distribution of income or consumption come from nationally representative household surveys. Where the original data from the household survey were available, they have been used to directly calculate the income or consumption shares by quintile. Otherwise, shares have been estimated from the best available grouped data.

For most countries the income distribution indicators are based on the same data used to derive the $1 and $2 a day poverty estimates in table 2.6. This table contains additional countries for which poverty estimates are not provided in table 2.6, either because no reasonable purchasing power parity estimates are available or because the international poverty lines are not relevant for high-income economies.

The distribution data have been adjusted for household size, providing a more consistent measure of per capita income or consumption. No adjustment has been made for spatial differences in cost of living within countries, because the data needed for such calculations are generally unavailable. For further details on the estimation method for low- and middle-income economies, see Ravallion and Chen (1996).

Because the underlying household surveys differ in method and type of data collected, the distribution data are not strictly comparable across countries. These problems are diminishing as survey methods improve and become more standardized, but achieving strict comparability is still impossible (see *About the data* for table 2.6).

Two sources of noncomparability should be noted in particular. First, the surveys can differ in many respects, including whether they use income or consumption expenditure as the living standard indicator. The distribution of income is typically more unequal than the distribution of consumption. In addition, the definitions of income used differ more often among surveys. Consumption is usually a much better welfare indicator, particularly in developing countries. Second, households differ in size (number of members) and in the extent of income sharing among members. And individuals differ in age and consumption needs. Differences among countries in these respects may bias comparisons of distribution.

World Bank staff have made an effort to ensure that the data are as comparable as possible. Wherever possible, consumption has been used rather than income. Income distribution and Gini indexes for high-income countries are calculated directly from the Luxembourg Income Study database, using an estimation method consistent with that applied for developing countries.

Definitions

• **Survey year** is the year in which the underlying data were collected. • **Gini index** measures the extent to which the distribution of income (or consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality. • **Percentage share of income or consumption** is the share of total income or consumption that accrues to subgroups of population indicated by deciles or quintiles. Percentage shares by quintile may not sum to 100 because of rounding.

Data sources

Data on distribution are compiled by the World Bank's Development Research Group using primary household survey data obtained from government statistical agencies and World Bank country departments. Data for high-income economies are estimated from the Luxembourg Income Study database.

2.8 Assessing vulnerability and security

	Urban informal sector employment		Youth unemployment		Female-headed households	Pension contributors			Public expenditure on pensions			
	% of urban employment		Male	Female								
	Male **1998–2001[a]**	Female **1998–2001[a]**	% of male labor force ages 15–24 **2000–05[a]**	% of female labor force ages 15–24 **2000–05[a]**	% of total **2000–05[a]**	Year	% of labor force	% of working-age population	Year	% of GDP	Year	Average pension % of per capita income
Afghanistan	..	..	..	..	..		..	..	2005	0.5		..
Albania	..	..	42	27	..	2004	48.8	33.0	2004	4.6		..
Algeria	..	..	43	46	..	2002	36.7	22.0	2002	3.2	2002	89.1
Angola	..	..	..	..	..		..	..		..		..
Argentina	..	..	22[b]	28[b]	..	2004	34.9	25.8	1994	6.2	2002	73.7
Armenia	..	..	..	..	29	2002	64.4	48.3	2004	3.4		..
Australia	..	..	11	10	..		..	..	2003	5.4	2002	52.4
Austria	..	..	11[b]	10[b]	..	2004	80.8	58.8	2003	11.6	2002	93.2
Azerbaijan	..	..	..	..	..	1996	52.0	46.0	1996	2.5		..
Bangladesh	..	..	7	6	10	2004	2.8	2.1	1992	0.0		..
Belarus	..	..	..	..	..	1992	97.0	94.0	1997	7.7		..
Belgium	..	..	16	20	..	1995	86.2	65.9	2003	8.5	2002	62.8
Benin	50	41	..	..	21	1996	4.8	..	1993	0.4		..
Bolivia	..	..	..	..	20	2002	10.1	7.8	2000	4.5		..
Bosnia and Herzegovina	..	..	..	..	..	2004	35.9	24.6	2004	8.8		..
Botswana	..	..	34	46	..		..	..		..		..
Brazil	..	..	14[b]	23[b]	..	2004	52.2	38.7	1997	9.8		..
Bulgaria	..	..	23	21	..	1994	64.0	63.0	2005	8.9	2002	75.2
Burkina Faso	..	..	..	..	9	1993	3.1	3.0	1992	0.3		..
Burundi	..	..	..	..	..	1993	3.3	3.0	1991	0.2		..
Cambodia	..	..	..	..	25		..	..		..		..
Cameroon	..	..	..	..	24	1993	13.7	11.5	2001	0.8		..
Canada	..	..	14[b]	11[b]	..	2003	57.0	63.0	2003	5.4	2002	57.1
Central African Republic	..	..	..	..	..		..	..	1990	0.3		..
Chad	..	..	..	..	20	1990	1.1	1.0	1997	0.1		..
Chile	..	..	15	21	..	2003	58.0	35.2	2001	2.9	2002	53.5
China	..	..	..	..	..	2005	20.5	17.2	1996	2.7		..
Hong Kong, China	..	..	14	8	..		..	..		..		..
Colombia	..	..	20	32	30	2000	19.0	14.0	1994	1.1	2002	54.4
Congo, Dem. Rep.	..	..	..	..	..		..	..		..		..
Congo, Rep.	..	..	..	..	..	1992	5.8	5.6	1992	0.9		..
Costa Rica	..	..	11	22	..	2004	55.2	37.6	1997	4.2	2002	103.1
Côte d'Ivoire	..	..	..	..	..	1997	9.3	9.1	1997	0.3		..
Croatia	..	..	30	36	..	2004	71.0	46.0	2005	12.3	2002	61.6
Cuba	..	..	..	..	..		..	..	1992	12.6		..
Czech Republic	..	..	19	19	..	2003	86.0	61.0	2003	10.5	2002	58.2
Denmark	..	..	9	9	..	2003	92.0	74.0	2003	9.6	2002	54.1
Dominican Republic	..	..	16	34	28	2005	27.2	18.6	2000	0.8	2002	55.9
Ecuador	..	..	12[b]	21[b]	..	2004	27.0	20.7	2002	2.5		..
Egypt, Arab Rep.	..	..	21	40	12	2004	55.4	27.7	2004	4.1	2002	119.8
El Salvador	..	..	13	9	..	2003	18.0	12.0	1997	1.3	2002	39.3
Eritrea	..	..	..	..	47		..	..	2001	0.3		..
Estonia	..	..	16	15	..	2000	91.0	66.0	2003	6.3	2002	60.9
Ethiopia	39	65	4	11	24		..	..	1993	0.9		..
Finland	..	..	18	19	..	2003	90.3	67.0	2003	9.0	2002	78.8
France	..	..	22[b]	24[b]	..	2003	90.0	62.0	2003	13.3	2002	65.0
Gabon	..	..	..	..	26	1995	15.0	14.0		..		..
Gambia, The	..	..	..	..	..		..	..		..		..
Georgia	21	7	27	31	..	2004	30.0	22.7	2004	3.0		..
Germany	..	..	16	14	..	2003	88.0	64.0	2003	13.2	2002	71.8
Ghana	..	..	13	19	34	2003	9.1	7.1	2002	1.3		..
Greece	..	..	18	35	..	2002	79.0	52.0	2003	12.8	2002	99.9
Guatemala	..	..	..	..	..	2000	19.0	11.7	1995	0.7		..
Guinea	..	..	..	..	..	1993	1.5	1.8		..		..
Guinea-Bissau	..	..	..	..	..		..	..		..		..
Haiti	..	..	..	..	43		..	..		..		..

2.8 Assessing vulnerability and security

	Urban informal sector employment		Youth unemployment		Female-headed households	Pension contributors			Public expenditure on pensions			
	% of urban employment		Male % of male labor force ages 15–24	Female % of female labor force ages 15–24								
	Male **1998–2001[a]**	Female **1998–2001[a]**	**2000–05[a]**	**2000–05[a]**	% of total **2000–05[a]**	Year	% of labor force	% of working-age population	Year	% of GDP	Year	Average pension % of per capita income
Honduras	..	..	5[b]	11[b]	..	1999	20.6	17.7	1994	0.6		..
Hungary	..	..	20	19	..	1996	77.0	65.0	2003	11.0	2002	90.5
India	54	41	10[b]	11[b]	..	2004	9.1	5.7		..		..
Indonesia	..	..	..	..	12	1995	8.0	7.0		..		..
Iran, Islamic Rep.	..	..	20	32	..	2001	35.0	20.0	2000	1.1	2002	124.2
Iraq	..	..	..	..	..		..	..		..		..
Ireland	..	..	9	7	..	2002	93.0	64.7	2003	4.7	2002	36.6
Israel	..	..	17	19	..	1992	82.0	63.0	1996	5.9		..
Italy	..	..	21	27	..	2003	90.0	56.0	2003	15.5	2002	88.8
Jamaica	..	..	22	36	..		..	..		..		..
Japan	..	..	10	7	..	2003	94.0	73.0	2003	8.9	2002	59.1
Jordan	..	..	28	43	12	2003	30.3	17.4	2001	2.2	2002	76.1
Kazakhstan	..	..	13	16	..	2004	33.7	26.3	2004	4.9		..
Kenya	..	..	..	..	32	2005	8.0	6.2	1993	0.5		..
Korea, Dem. Rep.	..	..	..	..	..		..	..		..		..
Korea, Rep.	..	..	12	9	..	1996	58.0	43.0	2003	1.3	2002	43.3
Kuwait	..	..	..	..	..		..	..	1990	3.5		..
Kyrgyz Republic	33	25	19	21	..	2004	40.1	28.3	1997	6.4		..
Lao PDR	..	..	..	..	..		..	..		..		..
Latvia	..	..	12	14	..	2003	90.0	64.0	2002	8.2	2002	81.8
Lebanon	..	..	..	..	..	2003	32.1	19.6	2003	2.1		..
Lesotho	..	..	..	..	..		..	..		..		..
Liberia	..	..	..	..	..		..	..		..		..
Libya	..	..	..	..	..	2003	65.5	37.1	2001	2.1	2002	91.2
Lithuania	50	27	16	15	..	2004	79.7	58.9	2003	6.2	2002	71.3
Macedonia, FYR	..	..	63	62	..	2000	63.8	38.8	1998	8.7		..
Madagascar	..	..	..	..	22	1993	5.4	4.8	1990	0.2		..
Malawi	..	..	..	..	27		..	..		..		..
Malaysia	..	..	8	8	..	1993	48.7	37.8	1999	6.5		..
Mali	..	..	..	..	11	1990	2.5	2.0	1991	0.4		..
Mauritania	..	..	..	..	29	1995	5.0	4.0	1992	0.2		..
Mauritius	..	..	21	34	..	2000	51.3	33.6	1999	4.4		..
Mexico	18	22	6	7	..	2002	34.6	22.6	2003	1.3	2002	45.1
Moldova	..	..	19	18	..	2000	60.0	43.0	2003	8.0		..
Mongolia	..	..	20	21	..	2002	61.4	49.1	2002	5.8		..
Morocco	..	..	17	16	17	2003	22.4	12.3	2003	1.9	2002	74.1
Mozambique	..	..	..	..	26	1995	2.0	2.1	1996	0.0		..
Myanmar	..	..	..	..	..		..	..		..		..
Namibia	..	..	40	49	42		..	..		..		..
Nepal	60	76	..	..	16	2003	2.1	1.4	2003	0.3		..
Netherlands	..	..	10	10	..	2002	94.0	72.0	2003	9.0	2002	84.1
New Zealand	..	..	9	10	..		..	..	2003	7.4	2002	39.5
Nicaragua	..	..	11[b]	16[b]	31	2005	17.9	11.5	1996	2.5		..
Niger	..	..	..	..	..	1992	1.3	1.5	1992	0.1		..
Nigeria	..	..	..	..	17	2000	1.9	1.3	1991	0.1		..
Norway	..	..	13	12	..	2003	92.0	75.0	2003	10.7	2002	65.1
Oman	..	..	..	..	..		..	..		..		..
Pakistan	64	61	11	15	..	2004	6.4	4.0	1993	0.9		..
Panama	..	..	19	30	..	1998	51.6	40.7	1996	4.3		..
Papua New Guinea	..	..	..	5	..		..	..		..		..
Paraguay	..	..	12	17	..	2004	11.6	9.1	2001	1.2		..
Peru	..	..	21[b]	21[b]	20	2003	16.3	12.3	2000	2.6	2002	43.9
Philippines	..	..	15	19	15	2000	27.0	18.6	1993	1.0		..
Poland	..	..	37	39	..	2005	84.8	54.5	2003	15.8	2002	69.7
Portugal	..	..	14	19	..	2003	92.0	71.0	2003	11.9	2002	79.8
Puerto Rico	..	..	25[b]	21[b]	..		..	..		..		..

2.8 Assessing vulnerability and security

	Urban informal sector employment		Youth unemployment		Female-headed households	Pension contributors			Public expenditure on pensions			
	% of urban employment		Male % of male labor force ages 15–24	Female % of female labor force ages 15–24	% of total							
	Male 1998–2001[a]	Female 1998–2001[a]	2000–05[a]	2000–05[a]	2000–05[a]	Year	% of labor force	% of working-age population	Year	% of GDP	Year	Average pension % of per capita income
Romania	..	..	21	18	..	2005	57.5	39.1	2003	6.9		..
Russian Federation	10	9	..	..	..		..	..	2004	5.8		..
Rwanda	..	..	..	..	36		..	..		..		..
Saudi Arabia	..	..	..	..	..		..	..		..		..
Senegal	..	..	..	..	..	2003	5.2	3.8	2003	1.3		..
Serbia and Montenegro	..	..	..	..	..	2003	45.9	32.1	2003	12.4		..
Sierra Leone	..	..	..	..	..	2004	4.6	3.6		..		..
Singapore	..	..	4	6	..	1995	73.0	56.0	1996	1.4		..
Slovak Republic	..	..	30[b]	29[b]	..	2003	58.8	55.0	2003	8.5	2002	60.2
Slovenia	..	..	11	12	..	1995	86.0	68.7	2003	10.1		..
Somalia	..	..	..	..	..		..	..		..		..
South Africa	16	28	56	65	..		..	..		..		..
Spain	..	..	17	24	..	2003	92.0	63.0	2003	10.6	2002	88.3
Sri Lanka	..	..	20	37	..	2004	35.6	22.2	1996	2.4		..
Sudan	..	..	..	..	..	1995	12.1	12.0		..		..
Swaziland	..	..	..	..	..		..	..		..		..
Sweden	..	..	16	13	..	2003	90.0	72.0	2003	14.0	2002	68.2
Switzerland	..	..	9	9	..	2003	99.0	84.0	2003	12.1	2002	67.3
Syrian Arab Republic	..	..	21	39	..		..	..	1991	0.5		..
Tajikistan	..	..	..	..	..		..	..	1996	3.0		..
Tanzania	..	..	..	..	25	1996	2.0	2.0		..		..
Thailand	..	..	5	5	..	1999	18.0	17.0		..		..
Togo	..	..	..	..	..	1997	15.9	15.0	1997	0.6		..
Trinidad and Tobago	..	..	17[b]	26[b]	..		..	..	1996	0.6		..
Tunisia	..	..	31	29	..	2003	54.9	30.0	2003	4.3	2002	72.7
Turkey	10	6	19	19	..	2002	44.9	24.3	2002	7.1	2002	103.3
Turkmenistan	..	..	..	..	27		..	..	1996	2.3		..
Uganda	..	..	..	..	28	2004	1.8	1.6	2003	0.3		..
Ukraine	..	..	16	17	..	2005	76.0	52.0	2005	15.4		..
United Arab Emirates	..	..	..	..	..		..	..		..		..
United Kingdom	..	..	13	10	..	2003	94.0	73.0	2003	8.3	2002	47.6
United States	..	..	12	10	..	2003	91.0	71.0	2003	7.5	2002	51.0
Uruguay	..	..	25[b]	35[b]	..	2001	57.7	44.3	1996	15.0	2002	125.4
Uzbekistan	..	..	..	..	..		..	..	1995	5.3		..
Venezuela, RB	..	..	24[b]	35[b]	..	2001	20.8	14.6	2001	2.7		..
Vietnam	..	..	4	5	27	1998	8.4	10.0	1998	1.6		..
West Bank and Gaza	..	..	39	45	..	2000	19.0	6.4	2001	0.8		..
Yemen, Rep.	..	..	..	..	..	1999	15.0	7.0	1994	0.1	2002	106.3
Zambia	..	..	..	..	23	2000	5.9	4.9	1993	0.1		..
Zimbabwe	..	..	28	21	..	1995	12.0	10.0	2002	2.3		..
World			.. w	.. w								
Low income			..	..								
Middle income			..	..								
Lower middle income			..	..								
Upper middle income			24	27								
Low & middle income			..	..								
East Asia & Pacific			..	..								
Europe & Central Asia			..	..								
Latin America & Carib.			14	20								
Middle East & N. Africa			..	..								
South Asia			11	12								
Sub-Saharan Africa			..	..								
High income			13	12								
Europe EMU			16	19								

a. Data are for the most recent year available. b. Limited coverage.

2.8 Assessing vulnerability and security

About the data

As traditionally defined and measured, poverty is a static concept, and vulnerability a dynamic one. Vulnerability reflects a household's resilience in the face of shocks and the likelihood that a shock will lead to a decline in well-being. Thus, it depends primarily on the household's asset endowment and insurance mechanisms. Because poor people have fewer assets and less diversified sources of income than the better-off, fluctuations in income affect them more.

Enhancing security for poor people means reducing their vulnerability to such risks as ill health, providing them the means to manage risk themselves, and strengthening market or public institutions for managing risk. The tools include microfinance programs, old age assistance and pensions, and public provision of education and basic health care (see tables 2.9 and 2.14).

Poor households face many risks, and vulnerability is thus multidimensional. The indicators in the table focus on individual risks—informal sector employment, youth unemployment, female-headed households, income insecurity in old age, and the extent to which publicly provided services may be capable of mitigating some of these risks. Poor people face labor market risks, often having to take up precarious, low-quality jobs in the informal sector and to increase their household's labor market participation by sending their children to work (see table 2.4). Income security is a prime concern for the elderly.

For informal sector employment the data are from a variety of sources, including labor force and special informal sector surveys, household surveys, surveys of household industries or economic activities, surveys of small enterprises and micro enterprises, and official estimates. The international comparability of the data is affected by differences among countries in definitions and coverage and in treatment of domestic workers. The data in the table are based on national definitions of informal sector and urban areas established by countries and therefore data may not be comparable across countries. For details on these definitions, consult the original source.

Youth unemployment is an important policy issue for many economies. Experiencing unemployment may permanently impair a young person's productive potential and future employment opportunities. The table presents unemployment among youth ages 15–24, but the lower age limit for young people in a country could be determined by the minimum age for leaving school, so age groups could differ across countries. Also, since this age group is likely to include school leavers, the level of youth unemployment varies considerably over the year as a result of different school opening and closing dates. The youth unemployment rate shares similar limitations on comparability as the general unemployment rate. For further information, see *About the data* for table 2.5 and the original source.

The data on female-headed households are from recent Demographic and Health Surveys. The definition and concept of the female-headed household differ greatly across countries, making cross-country comparison difficult. In some cases it is assumed that a woman cannot be the head of any household in which an adult male is present, because of sex-biased stereotype. Users need to be cautious when interpreting the data.

The data on pension contributors come from national sources, the International Labour Organization (ILO), and International Monetary Fund country reports. Coverage by pension schemes may be broad or even universal where eligibility is determined by citizenship, residency, or income status. In contribution-related schemes, however, eligibility is usually restricted to individuals who have made contributions for a minimum number of years. Definitional issues—relating to the labor force, for example—may arise in comparing coverage by contribution-related schemes over time and across countries (for country-specific information, see Palacios and Pallares-Miralles 2000). The share of the labor force covered by a pension scheme may be overstated in countries that do not attempt to count informal sector workers as part of the labor force.

Public interventions and institutions can provide services directly to poor people, although whether these interventions and institutions work well for the poor is debated. State action is often ineffective, in part because governments can influence only a few of the many sources of well-being and in part because of difficulties in delivering good and services. The effectiveness of public provision is further constrained by the fiscal resources at governments' disposal and the fact that state institutions may not be responsive to the needs of poor people.

The data on public pension spending are from national sources and cover all government expenditures, including the administrative costs of pension programs. They cover noncontributory pensions or social assistance targeted to the elderly and disabled and spending by social insurance schemes for which contributions had previously been made. The pattern of spending in a country is correlated with its demographic structure—spending increases as the population ages.

Definitions

• **Urban informal sector employment** is all persons who, during a given reference period, were employed in at least one informal enterprise, irrespective of their status in employment and whether it was their main or secondary job. • **Youth unemployment** refers to the share of the labor force ages 15–24 without work but available for and seeking employment. • **Female-headed households** refer to the percentage of households with a female head. • **Pension contributors** refer to the share of the labor force or working-age population (here defined as ages 15–64) covered by a pension scheme. • **Public expenditure on pensions** includes all government expenditures on cash transfers to the elderly, the disabled, and survivors and the administrative costs of these programs. • **Average pension** is estimated by dividing total pension expenditure by the number of pensioners.

Data sources

Data on urban informal sector employment and youth unemployment are from the ILO database Key Indicators of the Labour Market, 4th edition. Data on female-headed household are from Demographic and Health Surveys by Macro International. Data on pension contributors and pension spending are from Robert Palacios and Montserrat Pallares-Miralles's "International Patterns of Pension Provision" (2000) and updates, Edward Whitehouse's *Pensions Panorama* (2007), and the Organisation for Economic Co-operation and Development's Social Expenditure database (forthcoming). Further updates, notes, and sources will be available in the World Bank's *Progress Report of Pensions Indicators* (forthcoming).

2.9 Education inputs

	Public expenditure per student[a]						Public expenditure on education		Trained teachers in primary education	Primary pupil-teacher ratio
	Primary		% of GDP per capita Secondary		Tertiary		% of GDP	% of total government expenditure	% of total	pupils per teacher
	1991	2005[b]	1998	2005[b]	1998	2005[b]	2005[b]	2005[b]	2005[b]	2005[b]
Afghanistan	..	..	..	..	..	..	..	..	36.5	83
Albania	..	*7.8*	..	*12.0*	..	*36.6*	*2.9*	*8.4*	..	*21*
Algeria	26.5	*11.3*	..	*17.1*	..	..	..	..	98.5	25
Angola	..	..	..	..	..	..	..	..	..	..
Argentina	..	*10.9*	13.6	*14.3*	20.2	*10.3*	*3.5*	*12.0*	..	*17*
Armenia	..	..	..	..	..	..	..	..	77.5	21
Australia	..	*16.4*	14.5	*14.4*	27.0	*22.5*	*4.8*	..	..	..
Austria	18.2	*23.2*	*29.9*	*28.6*	*51.6*	*45.7*	*5.5*	*10.8*	..	*13*
Azerbaijan	..	6.3	15.4	10.2	*19.1*	10.4	2.5	19.6	100.0	13
Bangladesh	..	*7.0*	*12.4*	14.7	*46.3*	49.7	2.5	14.2	*48.0*	*51*
Belarus	..	14.1	..	25.3	..	28.3	6.0	11.3	99.8	16
Belgium	16.3	*20.2*	..	*23.1*	..	*37.1*	*6.2*	*11.8*	..	*12*
Benin	..	11.5	..	*21.2*	..	..	3.5	14.1	*72.2*	47
Bolivia	..	*16.2*	12.0	*13.0*	52.2	*36.0*	*6.4*	*18.1*	*63.3*	*24*
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..
Botswana	..	17.2	..	44.0	..	479.9	10.7	21.5	*92.5*	26
Brazil	..	*10.8*	*10.4*	*11.2*	85.7	*48.9*	*4.1*	*10.9*	..	*22*
Bulgaria	..	*19.0*	..	*20.9*	..	*28.3*	*4.2*	..	*95.1*	*17*
Burkina Faso	..	34.7	..	21.6	..	212.3	4.7	16.6	88.3	47
Burundi	13.4	19.1	..	73.3	*1051.9*	348.8	5.1	17.7	87.5	49
Cambodia	..	*6.1*	11.4	..	..	*77.5*	*1.9*	..	97.7	53
Cameroon	..	*10.3*	*18.2*	*16.0*	*69.7*	*67.9*	1.8	8.6	62.7	48
Canada	..	..	..	..	*49.0*	*44.6*	*5.2*	..	..	..
Central African Republic	11.9	11.8	..	..	..	..	..	..	..	..
Chad	8.0	7.3	*27.5*	30.1	..	359.9	2.1	10.1	26.8	63
Chile	..	*12.8*	13.8	*14.2*	21.0	*15.5*	*3.7*	*18.5*	*96.4*	*27*
China	..	..	*11.5*	..	*90.1*	..	..	..	*84.7*	*21*
Hong Kong, China	..	14.9	..	19.9	..	60.6	4.2	23.0	93.2	18
Colombia	..	19.5	14.9	18.4	35.6	24.6	4.8	11.1	..	29
Congo, Dem. Rep.	..	..	..	..	..	..	..	..	..	*34*
Congo, Rep.	..	4.0	..	*18.3*	*404.9*	*245.9*	2.2	8.1	*62.2*	83
Costa Rica	7.8	*17.0*	*23.2*	*17.1*	*55.0*	*36.1*	*4.9*	*18.5*	96.8	21
Côte d'Ivoire	..	..	*54.5*	..	*212.8*	..	..	21.6	*100.0*	*42*
Croatia	..	*20.2*	..	*26.0*	*41.5*	*31.5*	*4.7*	*10.0*	*100.0*	15
Cuba	..	*37.6*	38.3	*41.1*	115.9	*59.0*	9.8	16.6	100.0	10
Czech Republic	..	*12.9*	*22.1*	*23.4*	*34.4*	*33.6*	*4.5*	*8.5*	..	*18*
Denmark	..	*25.5*	*38.3*	*35.0*	66.2	*67.2*	*8.4*	*15.1*	..	..
Dominican Republic	..	8.1	..	*5.5*	..	..	1.8	9.7	88.3	24
Ecuador	..	..	..	..	..	..	..	..	*70.9*	23
Egypt, Arab Rep.	..	..	..	..	..	..	..	..	..	*22*
El Salvador	..	9.2	8.2	10.5	10.5	17.2	2.8	*20.0*	100.0	30
Eritrea	..	11.3	..	15.4	..	*1,101.3*	5.4	..	83.6	48
Estonia	..	*20.1*	*27.9*	*27.7*	*32.6*	*23.2*	*5.7*	*15.4*	..	*14*
Ethiopia	22.1	..	..	..	..	..	5.0	19.4	97.1	72
Finland	21.9	*18.7*	*26.4*	*28.1*	*41.3*	*37.4*	6.5	*12.8*	..	*16*
France	11.8	*17.6*	*28.6*	*29.6*	*29.7*	*33.9*	*5.9*	*11.0*	..	*19*
Gabon	..	..	..	..	..	..	..	..	*100.0*	*36*
Gambia, The	13.2	*7.4*	..	*9.1*	..	*238.0*	*2.0*	*8.9*	*57.8*	*35*
Georgia	..	..	..	..	..	..	*2.9*	*13.1*	*89.7*	*14*
Germany	..	*16.6*	*20.5*	*22.3*	..	..	*4.7*	*9.7*	..	*14*
Ghana	..	12.8	..	34.5	..	209.8	5.4	..	53.2[c]	35[c]
Greece	7.6	*16.1*	15.5	*22.5*	30.7	*24.3*	*4.0*	*8.0*	..	*11*
Guatemala	..	*6.5*	..	*3.5*	..	..	..	..	..	31
Guinea	..	..	..	..	..	244.1	2.0	..	68.1	45
Guinea-Bissau	..	..	..	..	..	..	..	..	..	..
Haiti	9.1	..	..	..	..	..	..	..	*40.5*	..

2.9 Education inputs

	Public expenditure per student[a]						Public expenditure on education		Trained teachers in primary education	Primary pupil-teacher ratio
	Primary		% of GDP per capita Secondary		Tertiary		% of GDP	% of total government expenditure	% of total	pupils per teacher
	1991	2005[b]	1998	2005[b]	1998	2005[b]	2005[b]	2005[b]	2005[b]	2005[b]
Honduras	..	..	..	..	..	..	..	..	*87.2*	*33*
Hungary	21.2	*21.9*	18.6	*26.8*	36.0	*31.9*	*5.9*	*10.3*	..	*10*
India	..	*11.1*	*21.2*	*19.8*	*74.5*	*68.6*	*3.7*	*10.7*	..	*40*
Indonesia	..	*2.6*	..	*4.9*	..	*13.3*	*0.9*	*9.0*	*92.9*	*20*
Iran, Islamic Rep.	..	9.7	..	11.0	..	22.8	4.7	22.8	100.0	19
Iraq	..	..	..	..	..	..	..	..	*100.0*	21
Ireland	11.6	*13.9*	17.5	*20.0*	29.4	*24.8*	*4.5*	*13.1*	..	*18*
Israel	12.6	*22.8*	*23.3*	*23.4*	*32.9*	*30.0*	*7.3*	*13.7*	..	*12*
Italy	15.3	*25.9*	*28.6*	*29.2*	*28.4*	*24.1*	*4.9*	*9.5*	..	*11*
Jamaica	9.9	*11.5*	..	*20.0*	..	*40.7*	*4.5*	*9.5*	*100.0*	*28*
Japan	..	*22.6*	19.9	*22.3*	13.2	*19.6*	*3.7*	*10.7*	..	*19*
Jordan	..	*14.0*	*15.7*	*16.9*	..	..	..	..	..	*20*
Kazakhstan	..	10.0	..	7.9	..	5.7	2.3	..	*97.2*	17
Kenya	12.9	*23.6*	..	*23.5*	..	*262.6*	*6.7*	*29.2*	*98.8*	40
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	11.8	*18.6*	14.9	*25.1*	7.0	*9.3*	*4.6*	*15.0*	*100.0*	29
Kuwait	35.4	12.2	..	18.1	..	116.4	5.1	12.7	100.0	12
Kyrgyz Republic	..	*7.6*	*11.9*	*14.3*	*27.7*	*20.8*	*4.4*	..	58.0	24
Lao PDR	..	8.6	*4.3*	4.0	66.9	22.4	2.3	11.7	83.4	31
Latvia	..	*20.6*	*24.0*	*24.5*	34.3	*14.4*	*5.3*	*15.4*	..	*13*
Lebanon	..	7.2	..	7.6	*12.8*	15.9	2.6	11.0	14.4	14
Lesotho	..	24.2	*68.4*	49.0	*1237.4*	1104.8	13.4	29.8	63.7	42
Liberia	..	..	..	..	..	..	..	..	..	..
Libya	..	..	..	..	*23.8*	..	..	..	..	..
Lithuania	..	*14.4*	..	*20.1*	..	*20.6*	*5.2*	*15.7*	..	*15*
Macedonia, FYR	..	*23.8*	..	*7.5*	..	*22.6*	*3.4*	*16.4*	*100.0*	*20*
Madagascar	..	8.4	*39.9*	..	*180.9*	175.0	3.2	25.3	36.5	54
Malawi	7.2	*13.5*	..	*28.6*	..	..	5.8	..	85.8	64
Malaysia	10.1	*18.6*	..	*26.3*	..	93.7	*8.0*	*28.0*	..	*18*
Mali	..	..	*61.6*	..	*265.0*	..	4.3	14.8	..	54
Mauritania	..	9.8	*38.7*	24.7	*85.0*	39.9	2.3	8.3	100.0	40
Mauritius	10.1	11.8	..	19.8	..	37.1	4.5	14.3	100.0	22
Mexico	4.8	*15.5*	*14.2*	*16.8*	*47.8*	*44.1*	*5.8*	*23.8*	*84.3*	*28*
Moldova	..	16.6	..	24.1	..	12.9	4.3	21.1	..	18
Mongolia	..	*14.3*	..	*13.2*	..	*22.8*	*5.3*	..	*96.4*	34
Morocco	15.3	22.9	*49.1*	39.6	*104.8*	93.0	6.7	27.2	100.0	27
Mozambique	..	*14.1*	..	*48.4*	..	*435.3*	*3.7*	*19.5*	59.8	66
Myanmar	..	*2.7*	..	*2.9*	..	..	..	..	76.0	31
Namibia	..	*20.1*	*36.4*	*24.1*	*157.6*	*106.6*	6.9	..	*16.7*	33
Nepal	..	*12.4*	*13.1*	*10.5*	..	*71.1*	*3.4*	*14.9*	*95.8*	40[c]
Netherlands	12.6	*18.7*	*21.8*	*23.6*	*44.2*	*43.0*	*5.3*	*10.8*	..	..
New Zealand	17.3	*19.4*	*24.5*	*22.7*	*42.0*	*34.1*	*6.8*	*20.9*	..	*16*
Nicaragua	..	*8.8*	..	*10.4*	..	..	*3.1*	*15.0*	76.9	34
Niger	..	*19.0*	..	*64.3*	..	..	*2.3*	..	*75.8*	44
Nigeria	..	..	..	..	..	..	..	..	49.8	37
Norway	32.7	*21.7*	30.6	*33.0*	47.8	*50.4*	*7.7*	*15.7*	..	*11*
Oman	10.5	*16.3*	*22.2*	*15.5*	..	*28.7*	3.6	24.2	..	..
Pakistan	..	*7.0*	..	*11.0*	..	..	2.3	10.9	85.5	38
Panama	11.3	9.6	*19.1*	*12.3*	*33.6*	*26.5*	*3.8*	*8.9*	89.6	24
Papua New Guinea	..	..	..	..	..	..	..	..	*100.0*	*35*
Paraguay	..	*12.6*	..	*14.1*	..	*30.1*	*4.3*	*10.8*	67.0	*28*
Peru	..	6.7	10.8	8.9	..	*12.3*	2.4	13.7	..	*22*
Philippines	..	*11.7*	..	*10.1*	..	*14.1*	*3.2*	*17.2*	*100.0*	*35*
Poland	12.9	*22.9*	16.5	*21.7*	36.3	*19.7*	*5.6*	*12.3*	..	*13*
Portugal	17.2	*24.4*	*29.1*	*33.0*	*29.7*	*27.8*	5.9	*12.4*	..	*12*
Puerto Rico	..	..	..	..	..	..	..	..	..	..

2.9 Education inputs

	Public expenditure per student[a]						Public expenditure on education		Trained teachers in primary education	Primary pupil-teacher ratio
	Primary		% of GDP per capita Secondary		Tertiary		% of GDP	% of total government expenditure	% of total	pupils per teacher
	1991	2005[b]	1998	2005[b]	1998	2005[b]	2005[b]	2005[b]	2005[b]	2005[b]
Romania	..	..	..	..	..	..	3.6	..	25.9	17
Russian Federation	..	..	..	..	..	12.1	3.7	12.3	99.0	17
Rwanda	..	11.3	..	18.6	..	408.8	3.8	12.2	81.7	62
Saudi Arabia	..	..	..	..	..	..	6.8	27.6	..	..
Senegal	18.9	18.7	..	32.2	..	267.6	5.4	18.9	100.0	47
Serbia and Montenegro	..	..	..	..	..	..	..	..	..	..
Sierra Leone	..	..	..	..	..	..	3.8	..	61.5	67
Singapore	..	..	..	..	..	..	..	..	..	..
Slovak Republic	..	13.0	18.5	17.8	33.0	29.3	4.4	11.2	..	18
Slovenia	17.4	30.0	..	25.7	..	26.4	6.0	12.6	..	15
Somalia	..	..	..	..	..	..	..	..	..	..
South Africa	20.2	14.2	21.2	17.6	64.3	49.6	5.4	17.9	78.7	36
Spain	11.2	18.6	24.4	23.8	19.6	22.7	4.3	11.2	..	14
Sri Lanka	..	..	..	..	..	..	..	..	..	22
Sudan	..	..	..	..	..	..	..	..	55.1	28
Swaziland	6.5	12.4	26.1	30.9	388.4	341.5	6.2	..	90.5	32
Sweden	46.2	24.0	26.3	26.8	53.3	46.9	7.5	12.8	..	10
Switzerland	36.1	24.9	27.7	29.2	54.5	64.8	6.1	13.0	..	..
Syrian Arab Republic	..	14.2	22.1	26.3	..	..	..	..	88.4	25
Tajikistan	..	8.7	..	11.3	..	14.1	3.5	18.0	84.1	21
Tanzania	..	..	..	..	..	..	..	..	100.0	56
Thailand	11.6	13.9	..	13.1	..	23.0	4.2	27.5	79.3	21
Togo	..	6.7	30.9	..	317.9	..	2.6	13.6	36.8	34
Trinidad and Tobago	..	15.7	12.2	..	147.6	..	4.2	..	81.0	18
Tunisia	..	24.1	..	24.1	..	80.6	8.1	..	..	21
Turkey	10.7	11.8	..	14.8	..	44.7	4.0	13.6	..	..
Turkmenistan	..	..	..	..	..	..	..	..	..	..
Uganda	..	11.3	..	34.0	..	188.8	5.2	18.3	80.4	50
Ukraine	..	14.8	..	23.9	..	34.1	6.4	18.9	99.7	19
United Arab Emirates	..	7.1	11.5	9.3	..	28.9	1.3	27.4	60.0	15
United Kingdom	15.0	18.4	26.6	28.4	32.8	28.1	5.5	11.9	..	18
United States	..	21.5	22.5	25.8	27.5	26.7	5.9	15.2	..	14
Uruguay	7.8	6.5	..	7.2	..	19.5	2.2	7.9	100.0	21
Uzbekistan	..	..	..	..	..	..	..	..	..	..
Venezuela, RB	..	..	..	..	..	..	..	..	84.0	19
Vietnam	..	..	..	..	..	..	..	..	93.4	22
West Bank and Gaza	..	..	..	..	..	..	..	..	100.0	25
Yemen, Rep.	..	..	..	..	..	..	..	..	..	26
Zambia	..	5.4	..	8.2	..	..	2.0	14.8	100.0	51
Zimbabwe	20.7	..	..	..	..	..	..	..	..	39
World	**.. m**	**15.4 m**	**.. m**	**20.3 m**	**.. m**	**32.6 m**	**4.7 m**	**.. m**	**.. m**	**29 m**
Low income	..	..	..	..	..	..	..	..	..	42
Middle income	..	14.1	..	17.4	..	32.5	4.5	15.2	..	22
Lower middle income	..	11.7	..	16.5	..	36.6	4.3	..	..	22
Upper middle income	..	14.7	..	20.1	33.6	26.3	4.6	15.4	..	22
Low & middle income	..	..	..	..	..	..	4.3	..	..	31
East Asia & Pacific	..	6.3	..	..	..	..	2.7	..	95.7	22
Europe & Central Asia	..	16.7	..	20.5	..	23.2	4.4	13.9	..	17
Latin America & Carib.	..	12.3	..	14.9	..	31.3	4.3	15.0	..	24
Middle East & N. Africa	..	14.3	..	17.5	..	..	..	..	..	23
South Asia	..	9.7	13.1	12.1	..	68.6	2.9	12.8	..	41
Sub-Saharan Africa	..	..	..	..	..	..	4.3	..	..	48
High income	16.3	18.7	24.4	24.4	29.7	29.4	5.9	12.8	..	16
Europe EMU	15.3	18.7	25.4	24.7	29.7	27.8	5.4	11.1	..	14

a. Because of the change from International Standard Classification of Education (ISCED) 76 to ISCED 97 in 1998, data before 1998 are not fully comparable with data from 1998 onward.
b. Provisional data. c. Data are for 2006.

2.9 Education inputs

About the data

Data on education are compiled by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics from official responses to surveys and from reports provided by education authorities in each country. Such data are used for monitoring, policymaking, and resource allocation. For a variety of reasons, however, education statistics generally fail to provide a complete and accurate picture of a country's education system. Statistics often lag by one to two years, though an effort is being made to shorten the delay. Moreover, coverage and data collection methods vary across countries and over time within countries, so comparisons should be interpreted with caution.

The data on education spending in the table for the majority of the countries refer to public spending—government spending on public education plus subsidies for private education. The data generally exclude foreign aid for education. They may also exclude spending by religious schools, which play a significant role in many developing countries. Data for some countries and for some years refer to spending by the ministry of education only (excluding education expenditures by other ministries and departments and local authorities).

Many developing countries have sought to supplement public funds for education. Some countries have adopted tuition fees to recover part of the cost of providing education services or to encourage development of private schools. Charging fees raises difficult questions relating to equity, efficiency, access, and taxation, however, and some governments have used scholarships, vouchers, and other methods of public finance to counter criticism. For most countries, the data reflect only public spending. Data for a few countries include private spending, although national practices vary with respect to whether parents or schools pay for books, uniforms, and other supplies. For greater detail, see the country- and indicator-specific notes in the source.

The share of public expenditure devoted to education allows an assessment of the priority a government assigns to education relative to other public investments, as well as a government's commitment to investing in human capital development. It also reflects the development status of a country's education system relative to that of others. However, returns on investment to education, especially primary and lower secondary education, cannot be understood simply by comparing current education indicators with national income. It takes a long time before currently enrolled children can productively contribute to the national economy (Hanushek 2002).

The share of trained teachers in primary education measures the quality of the teaching staff. It does not take account of competencies acquired by teachers through their professional experience or self-instruction or of such factors as work experience, teaching methods and materials, or classroom conditions, which may affect the quality of teaching. Since the training teachers receive varies greatly (pre-service or in-service), care should be taken in comparing across countries.

The primary pupil-teacher ratio reflects the average numbers of pupils per teacher. It is different from the average class size because of the different practices countries employ, such as part-time teaching, school shifts, and multigrade classes. The comparability of pupil-teacher ratios across countries is affected by the definition of teachers and by differences in class size by grade and in the number of hours taught, as well as the different practices mentioned above. Moreover, the underlying enrollment levels are subject to a variety of reporting errors (for further discussion of enrollment data see *About the data* for table 2.10). While the pupil-teacher ratio is often used to compare the quality of schooling across countries, it is often weakly related to the value added of schooling systems.

In 1998 UNESCO introduced the new International Standard Classification of Education 1997. Thus the time-series data for the years through 1997 are not consistent with those for 1998 and later. Any time-series analysis should therefore be undertaken with extreme caution.

In 2006 the UNESCO Institute for Statistics also changed its convention for citing the reference year of education data and indicators to the calendar year in which the academic or financial year ends. Data that used to be listed for 2004/05, for example, are now listed for 2005. This change was implemented to present the most recent data available and to align the data reporting with that of other international organizations (in particular the Organisation for Economic Co-operation and Development and Eurostat).

Definitions

• **Public expenditure per student** is public current spending on education divided by the number of students by level, as a percentage of gross domestic product (GDP) per capita. • **Public expenditure on education** is current and capital public expenditure on education, as a percentage of GDP and as a percentage of total government expenditure. • **Trained teachers in primary education** are the percentage of primary school teachers who have received the minimum organized teacher training (pre-service or in-service) required for teaching in their country. • **Primary pupil-teacher ratio** is the number of pupils enrolled in primary school divided by the number of primary school teachers (regardless of their teaching assignment).

Data sources

Data on education inputs are from the UNESCO Institute for Statistics, which compiles international data on education in cooperation with national commissions and national statistical services. Data for latest years are provisional, as of January 2007.

2.10 Participation in education

	Gross enrollment ratio				Net enrollment ratio[a]				Children out of school	
	% of relevant age group				% of relevant age group				thousand primary-school-age children	
	Preprimary	Primary	Secondary	Tertiary	Primary		Secondary		Male	Female
	2005[b]	2005[b]	2005[b]	2005[b]	1991	2005[b]	1991	2005[b]	2005[b]	2005[b]
Afghanistan	*1*	87	16	*1*	..	..	..	..	..	..
Albania	*49*	*106*	*78*	*19*	95	*94*	..	*74*	*7*	*7*
Algeria	6	112	83	20	89	97	53	*66*	0	39
Angola	..	..	..	*1*	50	..	..	..	..	..
Argentina	*62*	*112*	*86*	*64*	..	*99*	..	*79*	*3*	*19*
Armenia	33	94	88	28	..	79	..	84	11	7
Australia	*102*	*103*	*149*	*72*	99	*96*	79	*85*	*42*	*35*
Austria	*89*	*106*	*101*	*50*	88	..	..	..	..	..
Azerbaijan	29	96	83	15	89	85	..	78	45	46
Bangladesh	11	*109*	46	6	..	*93*	..	43	..	..
Belarus	105	101	95	62	86	89	..	89	17	21
Belgium	*116*	*104*	*109*	*63*	96	*99*	87	*97*	*4*	*3*
Benin	5	96	33	..	41	78	..	..	..	..
Bolivia	50	*113*	*88*	*41*	..	94	..	*73*	*28*	*19*
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..
Botswana	..	105	75	5	83	83	35	55	26	25
Brazil	68	*141*	*102*	*22*	85	*93*	17	*76*	..	..
Bulgaria	*78*	*105*	*102*	*41*	86	*95*	63	*88*	*5*	5
Burkina Faso	2	58	14	2	29	45	..	11	553	649
Burundi	2	85	13	2	53	60	..	..	222	258
Cambodia	9	134	*29*	3	69	99	..	24	..	..
Cameroon	25	117	44	6	74	..	..	..	..	..
Canada	68	*100*	*109*	*60*	98	..	89	..	..	..
Central African Republic	*2*	56	*12*	2	52	..	..	..	..	..
Chad	1	77	16	1	35	*61*	..	*11*	..	..
Chile	*52*	*104*	*89*	*43*	89	..	55	..	..	..
China	*36*	*118*	*73*	*19*	97	..	..	..	..	..
Hong Kong, China	69	105	87	31	..	93	..	80	1	12
Colombia	39	113	79	28	69	87	34	*55*	276	257
Congo, Dem. Rep.	*1*	*62*	*22*	..	54	..	..	..	..	..
Congo, Rep.	6	88	*39*	*4*	79	44	..	..	203	173
Costa Rica	69	110	79	*25*	87	..	38	..	..	..
Côte d'Ivoire	*3*	*72*	*25*	..	45	*56*	..	*20*	*519*	*705*
Croatia	*48*	*96*	*88*	*42*	79	*87*	63	*85*	*7*	*7*
Cuba	113	102	94	61	93	97	70	87	5	14
Czech Republic	*107*	*102*	*96*	*43*	87	..	..	..	..	..
Denmark	*91*	*101*	*124*	*74*	98	*98*	87	*92*	*5*	*2*
Dominican Republic	34	113	71	*33*	57	88	..	53	67	53
Ecuador	77	117	61	..	98	98	..	*52*	*11*	*0*
Egypt, Arab Rep.	*14*	*101*	*87*	*33*	84	*95*	..	*79*	*58*	*161*
El Salvador	51	113	63	19	..	93	..	53	26	22
Eritrea	12	64	31	*1*	16	47	..	25	144	164
Estonia	*114*	*100*	*98*	*65*	99	*94*	..	*90*	*2*	*1*
Ethiopia	2	93	31	3	22	61	..	28	..	..
Finland	*59*	*101*	*109*	*90*	98	99	93	*94*	*1*	*1*
France	*114*	*105*	*111*	*56*	100	99	..	96	*11*	*4*
Gabon	*14*	*130*	*50*	..	85	..	..	..	..	..
Gambia, The	*18*	*81*	*47*	*1*	48	..	..	*45*	..	..
Georgia	51	94	83	46	97	87	..	72	26	22
Germany	*97*	*100*	*100*	..	84	..	..	..	..	..
Ghana	56[c]	94[c]	45[c]	5[c]	54	69[c]	..	38[c]	510[c]	480[c]
Greece	*66*	*102*	*96*	*79*	95	*99*	83	*87*	*0*	*3*
Guatemala	28	114	51	*10*	..	94	..	*34*	..	..
Guinea	7	81	30	3	27	66	..	24	..	..
Guinea-Bissau	..	..	..	..	38	..	..	..	..	..
Haiti	..	..	..	..	22	..	..	..	..	..

2.10 Participation in education

	Gross enrollment ratio				Net enrollment ratio[a]				Children out of school	
	% of relevant age group				% of relevant age group				thousand primary-school-age children	
	Preprimary	Primary	Secondary	Tertiary	Primary		Secondary		Male	Female
	2005[b]	2005[b]	2005[b]	2005[b]	1991	2005[b]	1991	2005[b]	2005[b]	2005[b]
Honduras	*33*	*113*	*65*	*16*	89	*91*	21	..	*43*	*27*
Hungary	*81*	*98*	*97*	*60*	91	*89*	75	*91*	*10*	9
India	*36*	*116*	*54*	*12*	..	*90*	..	..	..	..
Indonesia	*22*	*117*	*64*	*17*	97	*94*	39	*57*	*0*	*246*
Iran, Islamic Rep.	46	111	81	24	92	95	..	77	307	0
Iraq	6	98	45	15	94	88	..	38	..	..
Ireland	..	*106*	*112*	*59*	90	*96*	80	*87*	*8*	*7*
Israel	*112*	*110*	*93*	*56*	92	*98*	..	*89*	*9*	*7*
Italy	*103*	*101*	*99*	*63*	100	*99*	..	*92*	*4*	*7*
Jamaica	*92*	*95*	*88*	*19*	96	*91*	64	*79*	*16*	*14*
Japan	*85*	*100*	*102*	*54*	100	*100*	97	*100*	*7*	*0*
Jordan	*30*	*98*	*87*	*39*	94	*91*	..	*81*	*26*	*17*
Kazakhstan	34	109	99	53	89	91	..	92	4	6
Kenya	54	114	49	*3*	..	80	..	42	526	506
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	91	105	93	90	100	99	86	90	4	10
Kuwait	73	98	95	18	49	87	..	*78*	14	14
Kyrgyz Republic	13	98	86	41	92	87	..	80	13	11
Lao PDR	9	116	47	8	63	84	..	38	55	71
Latvia	*79*	*93*	*97*	*74*	92	..	..	..	..	..
Lebanon	74	106	89	51	73	92	..	..	12	12
Lesotho	34	132	39	3	71	87	15	25	25	16
Liberia	..	..	..	..	..	..	..	..	..	..
Libya	*8*	107	*104*	*56*	96	..	..	..	..	..
Lithuania	*64*	*97*	*102*	*73*	..	*89*	..	*94*	*7*	*6*
Macedonia, FYR	*32*	*98*	*84*	*28*	94	*92*	..	*81*	*2*	*1*
Madagascar	8	138	..	3	64	92	..	..	93	95
Malawi	..	122	28	*0*[b]	48	95	..	24	83	30
Malaysia	*108*	*93*	*76*	*32*	..	*93*	..	*76*	*112*	*110*
Mali	*3*	66	24	3	21	51	5	..	505	607
Mauritania	2	93	21	3	35	72	..	15	65	65
Mauritius	95	102	89	17	91	95	..	82	3	2
Mexico	*84*	*109*	*80*	*23*	98	*98*	44	*64*	*22*	*7*
Moldova	62	92	82	34	89	86	..	76	12	12
Mongolia	40	118	94	41	90	89	..	78	13	9
Morocco	54	105	50	11	56	86	..	*35*	216	309
Mozambique	..	105	14	*1*	43	79	..	7	331	468
Myanmar	..	100	40	*11*	98	90	..	37	267	221
Namibia	*29*	99	61	6	..	72	..	38	62	50
Nepal	64[c]	126[c]	43[c]	6	..	*78*	..	..	..	..
Netherlands	*89*	*107*	*119*	*59*	95	99	84	*89*	*3*	*11*
New Zealand	*92*	*102*	*118*	*86*	98	*99*	85	*91*	*1*	*1*
Nicaragua	37	112	66	*18*	73	87	..	43	27	27
Niger	1	47	9	1	22	40	5	8	634	737
Nigeria	15	103	34	*10*	58	91	..	27	..	..
Norway	*85*	*99*	*116*	*80*	100	*99*	88	*96*	*2*	*2*
Oman	7	84	87	15	69	76	..	75	41	38
Pakistan	50	87	27	5	33	68	..	21	2,328	3,975
Panama	62	111	70	44	..	98	..	64	1	2
Papua New Guinea	*59*	*75*	*26*	..	..	..	..	..	..	..
Paraguay	*31*	*106*	*63*	*24*	94	..	26	..	..	..
Peru	*60*	*114*	*92*	*33*	..	*97*	..	*69*	*12*	*2*
Philippines	*40*	*112*	*86*	*29*	96	*94*	..	*61*	*392*	*255*
Poland	*53*	*99*	*97*	*61*	97	*97*	76	*90*	*41*	*33*
Portugal	*76*	*116*	*97*	*57*	98	*98*	..	*82*	*1*	*2*
Puerto Rico	..	..	..	..	..	..	..	..	..	..

2.10 Participation in education

	Gross enrollment ratio				Net enrollment ratio[a]				Children out of school	
	% of relevant age group				% of relevant age group				thousand primary-school-age children	
	Preprimary	Primary	Secondary	Tertiary	Primary		Secondary		Male	Female
	2005[b]	2005[b]	2005[b]	2005[b]	1991	2005[b]	1991	2005[b]	2005[b]	2005[b]
Romania	*76*	*107*	*85*	*40*	81	*92*	..	*81*	*23*	*24*
Russian Federation	*85*	*123*	*93*	*68*	99	*91*	..	..	*198*	*171*
Rwanda	*3*	120	14	3	66	74	7	..	196	177
Saudi Arabia	10	91	88	28	59	78	31	66	426	367
Senegal	8	88	26	5	43	76	..	21	167	195
Serbia and Montenegro	..	..	..	..	..	..	..	..	..	..
Sierra Leone	4	155	30	*2*	43	..	..	..	..	..
Singapore	..	..	..	..	..	..	..	..	..	..
Slovak Republic	*92*	*99*	*94*	*36*	..	..	..	..	..	..
Slovenia	*79*	*99*	*100*	*74*	96	*98*	..	95	*0*[d]	*0*
Somalia	*2*[c]	*17*	..	..	9	*19*[c]	..	..	..	..
South Africa	*37*	*104*	*93*	*16*	90	*87*	45	..	*321*	*248*
Spain	*111*	*108*	*119*	*66*	100	*99*	..	*97*	*3*	*10*
Sri Lanka	..	*98*	*83*	..	..	*97*	..	..	*9*	*13*
Sudan	25	60	34	..	40	..	..	..	..	..
Swaziland	*18*	*107*	*45*	4	77	*80*	31	*33*	*21*	*19*
Sweden	*85*	*99*	*103*	*84*	100	*99*	85	*98*	*4*	*5*
Switzerland	*95*	*102*	*93*	*47*	84	*94*	80	*83*	*5*	*4*
Syrian Arab Republic	10	124	68	..	91	*95*	43	62	*0*	*70*
Tajikistan	9	101	82	17	77	*97*	..	80	2	15
Tanzania	29	106	..	1	49	*91*	..	..	273	331
Thailand	90	97	73	43	76	..	..	..	..	..
Togo	*2*	100	40	..	64	78	15	..	..	..
Trinidad and Tobago	86	106	88	12	91	95	..	75	0[d]	0
Tunisia	*22*	*110*	*81*	*29*	94	*97*	..	*67*	*11*	*6*
Turkey	*8*	*93*	*79*	*29*	89	*89*	42	..	*354*	*546*
Turkmenistan	..	..	..	..	..	..	..	..	..	..
Uganda	*2*	118	16	*3*	..	..	..	13	..	..
Ukraine	86	107	89	69	80	83	..	79	152	144
United Arab Emirates	64	83	64	*22*	99	71	60	57	37	39
United Kingdom	*59*	*107*	*105*	*60*	98	99	81	*95*	*1*	*0*[d]
United States	*62*	*99*	*95*	*82*	97	*92*	85	*89*	*593*	*1,028*
Uruguay	*61*	*109*	*108*	*39*	91	..	..	..	..	..
Uzbekistan	*28*	*100*	*95*	*15*	78	..	..	..	..	..
Venezuela, RB	58	105	74	*41*	87	91	18	63	130	106
Vietnam	60	95	76	16	90	88	..	69	..	..
West Bank and Gaza	30	89	99	38	..	80	..	95	35	35
Yemen, Rep.	1	87	48	9	51	*75*	..	..	..	..
Zambia	..	111	28	..	..	89	..	26	119	109
Zimbabwe	*43*	*96*	*36*	*4*	..	*82*	..	*34*	*224*	*206*
World	***38*** **w**	***107*** **w**	***65*** **w**	***24*** **w**	**83 w**	**.. w**	**.. w**	**.. w**		
Low income	*27*	*102*	*45*	*9*	..	*78*	..	*37*		
Middle income	*39*	*113*	*77*	*26*	92	..	..	69		
Lower middle income	*35*	*115*	*76*	*22*	92	*93*	..	65		
Upper middle income	59	*105*	*86*	*43*	93	*94*	..	*75*		
Low & middle income	*33*	*107*	*61*	*18*	81	..	..	..		
East Asia & Pacific	*36*	*114*	*71*	*19*	96	*93*	..	..		
Europe & Central Asia	*50*	*102*	*90*	*49*	90	*91*	..	*84*		
Latin America & Carib.	*62*	*118*	*86*	*28*	85	*95*	30	67		
Middle East & N. Africa	*21*	*103*	*73*	*22*	84	*90*	..	65		
South Asia	*33*	*110*	*50*	*10*	..	*86*	..	..		
Sub-Saharan Africa	*16*	*92*	*30*	*5*	50	*66*	..	*24*		
High income	*76*	*100*	*100*	*67*	95	*94*	..	*90*		
Europe EMU	*101*	*104*	*106*	*62*	95	99	..	*94*		

a. Because of the change from International Standard Classification of Education (ISCED) 76 to ISCED 97 in 1998, data before 1998 are not fully comparable with data from 1998 onward.
b. Provisional data. c. Data are for 2006. d. Less than 0.5.

2.10 Participation in education

About the data

School enrollment data are reported to the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics by national education authorities and statistical offices. Enrollment ratios help to monitor two important issues for universal primary education: whether a country is on track to achieve the Millennium Development Goal of universal primary completion by 2015, which implies achieving a net primary enrollment ratio of 100 percent, and whether an education system has sufficient capacity to meet the needs of universal primary education, as indicated in part by its gross enrollment ratios.

Enrollment ratios, while a useful measure of participation in education, also have some limitations. They are based on data collected during annual school surveys, which are typically conducted at the beginning of the school year. They do not reflect actual rates of attendance or dropouts during the school year. And school administrators may report exaggerated enrollments, especially if there is a financial incentive to do so. Typically, the total number of teachers allocated to a given school is related to enrollment. This may create perverse incentives to inflate enrollment levels, particularly when enrollment is closely linked to government school funding formulas, such as student capitation grants.

Also as international indicators, the gross and net primary enrollment ratios have an inherent weakness: the length of primary education differs significantly across countries, although the International Standard Classification of Education tries to minimize the difference. A relatively short duration for primary education tends to increase the ratio, whereas a relatively long duration tends to decrease it (in part because there are more dropouts among older children).

Overage or underage enrollments frequently occur, particularly when parents prefer, for cultural or economic reasons, to have children start school at other than the official age. Children's age at enrollment may be inaccurately estimated or misstated, especially in communities where registration of births is not strictly enforced. Parents who want to enroll an underage child in primary school may do so by overstating the child's age. And in some education systems ages for children repeating a grade may be underreported.

Other problems affecting cross-country comparisons of enrollment data stem from errors in estimates of school-age populations. Age-sex structures from censuses or vital registration systems, the primary sources of data on school-age populations, are commonly subject to underenumeration (especially of young children) aimed at circumventing laws or regulations. Errors are also introduced when parents round up children's ages. While census data are often adjusted for age bias, adjustments are rarely made for inadequate vital registration systems. Compounding these problems, pre- and post-census estimates of school-age children are interpolations or projections based on models that may miss important demographic events (see the discussion of demographic data in *About the data* for table 2.1).

Thus gross enrollment ratios indicate the capacity of each level of the education system, but a high ratio does not necessarily mean a successful education system. The net enrollment ratio excludes overage and underage students in an attempt to capture more accurately the system's coverage and internal efficiency. It does not solve the problem completely, however, because some children fall outside the official school age because of late or early entry rather than because of grade repetition. The difference between gross and net enrollment ratios shows the incidence of overage and underage enrollments.

In using enrollment data, it is also important to consider repetition rates. These rates are quite high in some developing countries, leading to a substantial number of overage children enrolled in each grade and raising the gross enrollment ratio.

Children out of school are children in the primary school age group who are not enrolled in primary or secondary education. The data are calculated by the UNESCO Institute for Statistics using administrative data. Children out of school include dropouts and children who never enrolled as well as children of primary age enrolled in preprimary education. The large number of children out of school creates pressure for the education system to enroll children and to provide classrooms, teachers, and educational materials, a task made difficult in many developing countries by limited education budgets. However, getting these children into school is a high priority for countries and crucial for their prospects for achieving the Millennium Development Goal of universal primary education.

In 2006 the UNESCO Institute for Statistics changed its convention for citing the reference year. For more information, see *About the data* for table 2.9.

Definitions

• **Gross enrollment ratio** is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. • **Preprimary education** refers to the initial stage of organized instruction, designed primarily to introduce very young children to a school-type environment. • **Primary education** provides children with basic reading, writing, and mathematics skills along with an elementary understanding of such subjects as history, geography, natural science, social science, art, and music. • **Secondary education** completes the provision of basic education that began at the primary level and aims at laying the foundations for lifelong learning and human development by offering more subject- or skill-oriented instruction using more specialized teachers. • **Tertiary education** refers to a wide range of post-secondary education institutions, including technical and vocational education, colleges, and universities, whether or not leading to an advanced research qualification, that normally require as a minimum condition of admission the successful completion of education at the secondary level. • **Net enrollment ratio** is the ratio of total enrollment of children of official school age based on the International Standard Classification of Education 1997 to the population of the age group that officially corresponds to the level of education shown. • **Children out of school** are the number of primary school age children not enrolled in primary or secondary school.

Data sources

Data on gross and net enrollment ratios and out of school children are from the UNESCO Institute for Statistics. Data for latest years are provisional, as of January 2007.

2.11 Education efficiency

	Gross intake rate in grade 1		Share of cohort reaching grade 5[a]				Repeaters in primary school		Transition to secondary education	
	% of relevant age group		% of grade 1 students				% of enrollment		% of enrollment in last year of primary	
	Male	Female	Male		Female		Male	Female	Male	Female
	2005[b]	2005[b]	1991	2004[b]	1991	2004[b]	2005[b]	2005[b]	2004[b]	2004[b]
Afghanistan	96	67	..	..	..	..	18	14	..	..
Albania	99	99	..	..	..	..	*3*	*2*	*100*	99
Algeria	102	99	95	94	94	97	14	8	76	83
Angola	..	..	..	..	..	..	..	..	..	..
Argentina	*110*	*110*	..	*84*	..	*85*	*8*	5	*92*	*94*
Armenia	98	102	..	..	..	..	0[c]	0[c]	93	93
Australia	*103*	*102*	98	..	99	..	..	..	*100*	*100*
Austria	*105*	*105*	..	..	..	..	..	..	..	..
Azerbaijan	94	93	..	..	..	..	0[c]	0[c]	99	99
Bangladesh	116	*131*	..	*63*	..	67	*7*	*7*	89[d]	96[d]
Belarus	105	103	..	..	..	..	0[c]	0[c]	99	100
Belgium	*103*	*104*	90	..	92	..	..	..	..	..
Benin	109	97	54	53	56	50	17	17	*51*	*51*
Bolivia	*119*	*119*	..	*85*	..	*85*	*2*	*1*	*90*	*90*
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..
Botswana	108	102	81	*89*	87	*92*	6	4	97	98
Brazil	*127*	*117*	..	..	..	..	..	..	..	..
Bulgaria	*107*	*104*	91	..	90	..	*3*	*2*	96	96
Burkina Faso	81	69	71	75	68	76	12	12	47	44
Burundi	92	84	65	66	58	68	30	30	35	30
Cambodia	137	128	..	62	..	65	15	12	84	80
Cameroon	120	104	..	*64*	..	*63*	26	25	43	47
Canada	*97*	*96*	95	..	98	..	..	..	..	..
Central African Republic	69	50	24	..	22	..	30	31	..	..
Chad	112	81	56	34	41	32	22	24	56	42
Chile	*99*	*97*	94	*99*	91	*99*	*3*	*2*	*95*	*98*
China	*95*	*93*	58	..	78	..	*0*[c]	*0*[c]	..	..
Hong Kong, China	93	87	..	99	..	100	1	1	100	100
Colombia	126	119	..	81	..	86	5	4	100	100
Congo, Dem. Rep.	*72*	*61*	58	..	50	..	*16*	*17*	..	..
Congo, Rep.	62	62	56	*65*	65	*67*	25	23	58	58
Costa Rica	103	103	83	84	85	90	8	6	*92*	*91*
Côte d'Ivoire	*75*	*68*	75	..	70	..	*17*	*18*	*42*	*36*
Croatia	*99*	*97*	..	..	..	..	*0*[c]	*0*[c]	*100*	*100*
Cuba	105	104	..	96	..	98	1	0[c]	98	99
Czech Republic	97	96	..	*98*	..	*99*	*1*	*1*	99	99
Denmark	*98*	*99*	94	..	94	..	..	..	*100*	*100*
Dominican Republic	118	108	..	..	..	..	10	6	83	92
Ecuador	*136*	*134*	..	*75*	..	*77*	*2*	*2*	76	71
Egypt, Arab Rep.	*99*	*99*	..	*98*	..	*99*	*5*	*3*	*83*	*89*
El Salvador	129	123	56	67	60	72	7	5	93	93
Eritrea	55	45	..	83	..	74	13	13	91	85
Estonia	*101*	*101*	..	99	..	99	*3*	*1*	*94*	99
Ethiopia	148	135	16	..	23	..	8	6	84	84
Finland	*98*	*97*	100	*100*	100	*100*	*1*	*0*[c]	*100*	*100*
France	..	..	69	..	95	..	..	..	..	..
Gabon	*94*	*94*	..	*68*	..	*71*	*35*	*34*	..	..
Gambia, The	*87*	99	..	..	..	..	*10*	*9*	..	..
Georgia	103	105	..	76	..	83	0[c]	0[c]	98	99
Germany	*105*	*105*	..	..	..	..	*2*	*1*	99	99
Ghana	107[e]	113[e]	81	*62*	79	*65*	6	6	*87*	*87*
Greece	*103*	*103*	100	..	100	..	*0*	*0*	..	..
Guatemala	125	122	..	70	..	66	13	12	*97*	*95*
Guinea	87	81	64	78	48	73	8	9	68	58
Guinea-Bissau	..	..	..	..	..	..	..	..	..	..
Haiti	..	..	..	..	..	..	..	..	..	..

2.11 Education efficiency

	Gross intake rate in grade 1		Share of cohort reaching grade 5[a]				Repeaters in primary school		Transition to secondary education	
	% of relevant age group		% of grade 1 students				% of enrollment		% of enrollment in last year of primary	
	Male	Female	Male		Female		Male	Female	Male	Female
	2005[b]	2005[b]	1991	2004[b]	1991	2004[b]	2005[b]	2005[b]	2004[b]	2004[b]
Honduras	*129*	*127*	..	..	..	..	9	7	..	..
Hungary	96	*94*	77	..	98	..	*3*	*2*	98	99
India	*139*	*130*	..	*81*	..	*76*	*3*	*3*	*87*	*82*
Indonesia	*121*	*116*	34	*88*	78	*90*	*3*	*3*	*84*	*84*
Iran, Islamic Rep.	107	139	91	*88*	89	*87*	3	1	95	86
Iraq	110	103	..	87	..	73	9	7	73	66
Ireland	*102*	*101*	99	*100*	100	*100*	*1*	*1*	..	..
Israel	99	*102*	..	*100*	..	*100*	*2*	*1*	*74*	*74*
Italy	*103*	*103*	..	96	..	97	*0*[c]	*0*[c]	*100*	99
Jamaica	*93*	*92*	..	*86*	..	*92*	*3*	*2*	..	..
Japan	*98*	*98*	100	..	100	..	..	..	..	..
Jordan	*91*	92	..	99	..	99	*1*	*1*	97	97
Kazakhstan	108	107	..	..	..	..	0[c]	0[c]	100	100
Kenya	120	116	75	81	78	85	6	6	..	..
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	105	107	99	98	100	98	0	0	99	98
Kuwait	93	92	..	..	..	..	2	2	93	97
Kyrgyz Republic	97	94	..	..	..	..	0[c]	0[c]	98	100
Lao PDR	121	111	..	64	..	62	20	18	80	75
Latvia	*90*	*89*	..	..	..	..	*4*	*2*	*97*	*99*
Lebanon	102	100	..	91	..	96	12	8	83	88
Lesotho	128	120	58	*58*	73	69	21	17	67	65
Liberia	..	..	..	..	..	..	..	..	..	..
Libya	..	..	..	..	..	..	..	..	..	..
Lithuania	*101*	*102*	..	..	..	..	*1*	*0*[c]	99	99
Macedonia, FYR	*98*	*97*	..	..	..	..	*0*[c]	*0*[c]	*99*	*98*
Madagascar	182	176	22	43	21	43	19	18	56	53
Malawi	177	188	71	40	57	37	9	8	77	72
Malaysia	*94*	*94*	97	*99*	97	*98*	..	..	..	..
Mali	70	59	71	*78*	67	*70*	18	19	53	48
Mauritania	112	113	76	51	75	55	10	10	48	43
Mauritius	102	102	97	97	98	97	5	4	60	69
Mexico	*106*	*105*	35	*92*	71	*94*	*6*	*4*	*95*	*92*
Moldova	93	91	..	..	..	..	0[c]	0[c]	99	98
Mongolia	148	149	..	..	..	..	0[c]	0[c]	96	99
Morocco	101	97	75	81	76	77	15	10	79	78
Mozambique	161	150	36	66	32	58	11	10	51	56
Myanmar	123	122	..	68	..	72	0[c]	0[c]	72	71
Namibia	93	94	60	*84*	65	*85*	15	12	90	93
Nepal	160[e]	160[e]	51	75[d]	51	83[d]	21[e]	20[e]	*79*	*74*
Netherlands	*100*	99	..	*100*	..	99	..	..	*96*	*100*
New Zealand	*100*	*99*	..	..	..	..	..	..	..	..
Nicaragua	147	137	11	51	37	56	11	9	..	..
Niger	65	51	61	66	65	64	5	6	63	53
Nigeria	124	107	..	*71*	..	*75*	2	3	..	..
Norway	*98*	*98*	99	*99*	100	*100*	..	..	*100*	*100*
Oman	73	74	97	98	96	98	1	1	98	99
Pakistan	128	103	..	68	..	72	3	3	67	72
Panama	110	109	..	85	..	86	7	5	64	65
Papua New Guinea	*101*	*90*	70	*68*	68	*68*	*0*	*0*	*77*	*77*
Paraguay	*109*	*106*	73	*80*	75	*83*	9	6	*91*	*91*
Peru	*105*	*106*	..	*90*	..	*90*	*8*	*7*	*96*	*94*
Philippines	*138*	*129*	..	*71*	..	*80*	*3*	*1*	*97*	*96*
Poland	*97*	*97*	89	..	96	..	*1*	*0*[c]	..	..
Portugal	*105*	*106*	..	..	..	..	*13*	*7*	..	..
Puerto Rico	..	..	..	..	..	..	..	..	..	..

2.11 Education efficiency

	Gross intake rate in grade 1		Share of cohort reaching grade 5[a]				Repeaters in primary school		Transition to secondary education	
	% of relevant age group		% of grade 1 students				% of enrollment		% of enrollment in last year of primary	
	Male	Female	Male		Female		Male	Female	Male	Female
	2005[b]	2005[b]	1991	2004[b]	1991	2004[b]	2005[b]	2005[b]	2004[b]	2004[b]
Romania	*126*	*126*	..	..	..	..	*3*	*2*	*98*	*98*
Russian Federation	*98*	*97*	..	..	..	..	..	..	..	..
Rwanda	178	177	61	*43*	59	*49*	19	19	..	..
Saudi Arabia	85	89	82	100	84	94	5	5	93	97
Senegal	101	105	..	*79*	..	*77*	13	13	63	59
Serbia and Montenegro	..	..	..	..	..	..	..	..	..	..
Sierra Leone	..	..	..	..	..	..	..	..	..	..
Singapore	..	..	..	..	..	..	..	..	..	..
Slovak Republic	*97*	96	..	..	..	..	*3*	*2*	98	*99*
Slovenia	*145*	*144*	..	..	..	..	*1*	*0*[c]	*100*	99
Somalia	..	..	..	66	..	52	..	..	..	..
South Africa	*117*	*111*	..	*82*	..	*83*	*8*	*8*	*89*	*91*
Spain	*103*	*102*	..	..	..	..	*3*	*2*	..	..
Sri Lanka	99	97	92	..	93	..	..	..	96	*98*
Sudan	72	62	90	78	99	79	1	2	88	91
Swaziland	*122*	*114*	74	*74*	80	*80*	*18*	*14*	*91*	*89*
Sweden	*92*	*93*	100	..	100	..	..	..	..	..
Switzerland	*89*	*94*	..	..	..	..	*2*	*1*	*100*	*100*
Syrian Arab Republic	123	119	97	*93*	95	*92*	8	6	94	95
Tajikistan	101	97	..	..	..	..	*0*[c]	*0*[c]	98	97
Tanzania	125	124	81	76	82	76	4	4	34	33
Thailand	..	..	..	..	..	..	..	..	..	..
Togo	94	88	52	79	42	70	23	23	70	63
Trinidad and Tobago	99	98	..	66	..	*76*	6	4	95	97
Tunisia	*94*	*96*	94	*96*	77	*97*	9	*6*	*86*	*90*
Turkey	*93*	*88*	98	*95*	97	*94*	*3*	*4*	*93*	*89*
Turkmenistan	..	..	..	..	..	..	..	..	..	..
Uganda	*164*	*163*	..	*63*	..	*64*	*14*	*14*	*36*	*36*
Ukraine	104	104	..	..	..	..	*0*[c]	*0*[c]	*99*	*100*
United Arab Emirates	89	89	80	96	80	97	2	2	97	98
United Kingdom	..	..	..	..	..	..	*0*	*0*	..	..
United States	*100*	*99*	..	..	..	..	..	..	..	..
Uruguay	*105*	*106*	96	*87*	98	90	*10*	*7*	*76*	*87*
Uzbekistan	*102*	*102*	..	..	..	..	*0*	*0*	*100*	99
Venezuela, RB	101	98	82	88	90	95	8	5	98	99
Vietnam	*101*	*95*	..	*87*	..	*86*	*3*	*2*	*95*	*94*
West Bank and Gaza	82	82	..	..	..	..	1[c]	1[c]	100	100
Yemen, Rep.	*122*	*97*	..	*78*	..	*67*	*5*	*4*	..	..
Zambia	126	123	..	..	..	..	7	6	54	57
Zimbabwe	*122*	*118*	72	*68*	81	*71*	..	..	69	*70*
World	***138*** **w**	***140*** **w**	**.. w**	**.. w**	**.. w**	**.. w**	***5*** **w**	***4*** **w**	**.. w**	**.. w**
Low income	*138*	*140*	..	*77*	..	*75*	*6*	*6*	*81*	*77*
Middle income	*104*	*102*	..	..	..	..	*3*	*3*	..	..
Lower middle income	*104*	*102*	59	..	79	..	*3*	*2*	..	..
Upper middle income	*103*	*100*	..	..	..	..	..	..	..	..
Low & middle income	*138*	*140*	..	..	..	..	*5*	*4*	..	..
East Asia & Pacific	*104*	*101*	55	..	78	..	*1*	*1*	..	..
Europe & Central Asia	*99*	*97*	..	..	..	..	..	..	..	..
Latin America & Carib.	*120*	*115*	..	..	..	..	..	..	..	..
Middle East & N. Africa	*104*	*103*	..	*90*	..	*87*	*8*	*5*	*85*	*88*
South Asia	*160*	*160*	..	*79*	..	*75*	*4*	*4*	*85*	*82*
Sub-Saharan Africa	120	110	..	..	..	..	9	9	..	..
High income	*100*	*100*	..	..	..	..	..	..	..	..
Europe EMU	*104*	*104*	..	..	..	..	*2*	*1*	..	..

a. Because of the change from International Standard Classification of Education (ISCED) 76 to ISCED 97 in 1998, data before 1998 are not fully comparable with data from 1998 onward.
b. Provisional data. c. Less than 0.5. d. Data are for 2005. e. Data are for 2006.

Education efficiency 2.11

About the data

Indicators of students' progress through school are estimated by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics. These indicators measure an education system's success in extending coverage to all students, maintaining the flow of students efficiently from one grade to the next, and imparting a particular level of education.

Gross intake rate indicates the general level of access to primary education. It also indicates the capacity of the education system to provide access to primary education. Low gross intake rates in grade 1 reflect the fact that many children do not enter primary school even though school attendance, at least through the primary level, is mandatory in all countries. Because the gross intake rate includes all new entrants regardless of age, it can be more than 100 percent. Once enrolled, students drop out for a variety of reasons, including low quality of schooling, relevance of curriculum (whether real or perceived by parents or students), repetition and discouragement over poor performance, and the direct and indirect costs of schooling. Students' progress to higher grades may also be limited by the availability of teachers, classrooms, and educational materials.

The share of cohort reaching grade 5 (cohort survival rate) is estimated as the proportion of an entering cohort of grade 1 students that eventually reaches grade 5. It measures the holding power and internal efficiency of an education system. Cohort survival rates approaching 100 percent indicate a high level of retention and a low level of dropout.

Cohort survival rates are typically estimated from data on enrollment and repetition by grade for two consecutive years, in a procedure called the reconstructed cohort method. This method makes three simplifying assumptions: dropouts never return to school; promotion, repetition, and dropout rates remain constant over the entire period in which the cohort is enrolled in school; and the same rates apply to all pupils enrolled in a given grade, regardless of whether they previously repeated a grade (Fredriksen 1993). Given these assumptions, cross-country comparisons should be made with caution, because other flows—caused by new entrants, reentrants, grade skipping, migration, or school transfers during the school year—are not considered.

The UNESCO Institute for Statistics measures the share of cohort reaching grade 5 because research suggests that five to six years of schooling is a critical threshold for the achievement of sustainable basic literacy and numeracy skills. But the indicator only indirectly reflects the quality of schooling, and a high rate does not guarantee these learning outcomes. Measuring actual learning outcomes requires setting curriculum standards and measuring students' learning progress against those standards through standardized assessments or tests. Currently, many countries do not systematically measure learning progress and outcomes.

The data on repeaters are often used to indicate the internal efficiency of the education system. Repeaters not only increase the cost of education for the family and for the school system, but also use limited school resources. Countries have different policies on repetition and promotion; in some cases the number of repeaters is controlled because of limited capacity. Care should be taken in interpreting this indicator.

The transition rate from primary school to secondary school conveys the degree of access or transition between the two levels of education. As completing primary education is a prerequisite for participating in lower secondary school, growing numbers of primary completers will inevitably create pressures for expanding the number of places available at the secondary level. A low transition rate can signal problems such as an inadequate promotion and examination system or insufficient capacity in secondary schools. The quality of data on the transition rate is affected when new entrants and repeaters are not correctly distinguished in the first grade of secondary school. Students who interrupt their studies for one or more years after completing primary school could also affect the quality of the data.

In 2006 the UNESCO Institute for Statistics changed its convention for citing the reference year. For more information, see *About the data* for table 2.9.

Definitions

• **Gross intake rate in grade 1** is the number of new entrants in the first grade of primary education regardless of age, expressed as a percentage of the population of the official primary school entrance age. • **Share of cohort reaching grade 5** is the percentage of children enrolled in the first grade of primary school who eventually reach grade 5. The estimate is based on the reconstructed cohort method (see *About the data*). • **Repeaters in primary school** are the number of students enrolled in the same grade as in the previous year, as a percentage of all students enrolled in primary school. • **Transition to secondary education** refers to the number of new entrants to the first grade of secondary school in a given year, as a percentage of the number of students enrolled in the final grade of primary school in the previous year.

Data sources

Data on education efficiency are from the UNESCO Institute for Statistics. Data for latest years are provisional, as of January 2007.

2.12 Education completion and outcomes

	Primary completion rate						Youth literacy rate				Adult literacy rate	
	% of relevant age group						% ages 15–24				% ages 15 and older	
	Total[a]		Male[a]		Female[a]		Male		Female		Male	Female
	1991	2005[b]	1991	2005[b]	1991	2005[b]	1990	2006[c]	1990	2006[c]	2006[c]	2006[c]
Afghanistan	*25*	32	*37*	46	*13*	18	..	51	..	18	43	13
Albania	..	*97*	..	*97*	..	*97*	97	99	92	99	99	98
Algeria	79	96	86	96	73	95	86	94	68	86	80	60
Angola	35	..	..	..	..	..	..	84	..	63	83	54
Argentina	..	*100*	..	*99*	..	*105*	98	99	98	99	97	97
Armenia	*90*	91	..	89	..	92	100	100	99	100	100	99
Australia	..	..	..	..	..	..	..	..	..	..	..	..
Austria	..	..	..	..	..	..	..	..	..	..	..	..
Azerbaijan	..	94	..	95	..	93	..	100	..	100	99	98
Bangladesh	*49*	77	..	*74*	..	79	51	..	33	..	..	..
Belarus	95	100	*95*	102	96	97	100	100	100	100	100	99
Belgium	79	..	76	..	82	..	..	..	..	..	..	..
Benin	21	65	28	78	13	52	57	59	25	33	48	23
Bolivia	..	*101*	..	*102*	..	99	96	99	89	96	93	81
Bosnia and Herzegovina	..	..	..	..	..	..	..	100	..	100	99	94
Botswana	83	92	75	90	90	94	79	92	87	96	80	82
Brazil	*93*	*108*	..	..	..	..	91	96	93	98	88	89
Bulgaria	85	*98*	87	99	83	*97*	100	98	99	98	99	98
Burkina Faso	21	31	26	35	16	27	..	38	..	25	29	15
Burundi	46	36	49	40	43	31	58	77	45	70	67	52
Cambodia	..	92	..	94	..	90	81	88	66	79	85	64
Cameroon	56	62	60	68	52	57	86	..	76	..	77	60
Canada	..	..	..	..	..	..	..	..	..	..	..	..
Central African Republic	27	23	35	29	18	16	66	70	39	47	65	33
Chad	18	32	30	42	7	21	58	56	38	23	41	13
Chile	..	*95*	..	*96*	..	*95*	98	99	98	99	96	96
China	103	*98*	..	..	..	..	97	99	93	99	95	87
Hong Kong, China	102	110	..	112	..	107	..	..	..	..	..	..
Colombia	70	98	67	96	73	100	94	98	96	98	93	93
Congo, Dem. Rep.	46	*39*	58	*47*	34	*31*	80	78	58	63	81	54
Congo, Rep.	54	57	59	60	49	55	95	..	90	..	..	..
Costa Rica	79	92	77	91	81	93	97	97	98	98	95	95
Côte d'Ivoire	43	..	55	..	32	..	65	71	40	52	61	39
Croatia	*85*	*91*	..	*92*	..	*91*	100	100	100	100	99	97
Cuba	96	94	..	95	..	93	99	100	99	100	100	100
Czech Republic	..	*104*	..	*104*	..	*104*	..	..	..	..	..	..
Denmark	98	99	98	99	98	*100*	..	..	..	..	..	..
Dominican Republic	*61*	92	..	88	..	96	87	93	88	95	87	87
Ecuador	*91*	*101*	*91*	*100*	*92*	*101*	96	96	95	96	92	90
Egypt, Arab Rep.	..	*95*	..	*96*	..	*93*	71	90	51	79	83	59
El Salvador	41	87	38	86	43	87	85	..	83	..	..	..
Eritrea	*19*	51	*22*	58	*17*	44	73	..	49	..	..	..
Estonia	*93*	*101*	*93*	*103*	*94*	*100*	100	100	100	100	100	100
Ethiopia	*26*	55	*32*	61	*19*	49	52	..	34	..	..	..
Finland	97	*100*	98	*99*	97	*100*	..	..	..	..	..	..
France	104	..	..	..	..	..	..	..	..	..	..	..
Gabon	*58*	*66*	*55*	*65*	*61*	*68*	..	..	..	..	..	..
Gambia, The	*44*	..	*55*	..	*33*	..	50	..	34	..	..	..
Georgia	..	87	..	86	..	87	..	..	..	..	..	..
Germany	*100*	*96*	*99*	*96*	*100*	*96*	..	..	..	..	..	..
Ghana	63	72	70	75	55	69	88	76	75	65	66	50
Greece	99	*102*	99	*103*	98	*101*	99	99	100	99	98	94
Guatemala	..	74	..	79	..	69	80	86	66	78	75	63
Guinea	17	55	24	64	9	45	62	59	26	34	43	18
Guinea-Bissau	..	..	..	..	..	..	..	..	..	..	..	..
Haiti	27	..	29	..	26	..	56	..	54	..	..	..

2.12 Education completion and outcomes

	Primary completion rate						Youth literacy rate				Adult literacy rate	
	% of relevant age group						% ages 15–24				% ages 15 and older	
	Total[a]		Male[a]		Female[a]		Male		Female		Male	Female
	1991	2005[b]	1991	2005[b]	1991	2005[b]	1990	2006[c]	1990	2006[c]	2006[c]	2006[c]
Honduras	65	*79*	67	*77*	62	*82*	78	87	81	91	80	80
Hungary	93	*95*	*88*	*95*	*90*	*96*	100	..	100	..	..	..
India	68	*89*	81	*93*	55	*84*	73	84	54	68	73	48
Indonesia	91	*101*	..	*101*	..	*102*	97	99	93	99	94	87
Iran, Islamic Rep.	91	96	97	91	85	100	92	..	81	..	84	70
Iraq	*59*	74	*64*	85	*53*	63	56	89	25	80	84	64
Ireland	..	*101*	..	*100*	..	*102*	..	..	..	..	..	..
Israel	..	*105*	..	*104*	..	*105*	99	100	98	100	98	96
Italy	104	*101*	104	*101*	104	*101*	..	100	..	100	99	98
Jamaica	90	*84*	86	*83*	94	*86*	87	..	95	..	74	86
Japan	101	..	101	..	102	..	..	..	..	..	..	..
Jordan	72	*97*	69	*97*	77	*96*	98	99	95	99	95	85
Kazakhstan	..	114	..	115	..	113	100	100	100	100	100	99
Kenya	..	95	..	96	..	94	93	80	87	81	78	70
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	98	104	98	104	98	104	..	..	..	..	..	..
Kuwait	..	100	..	104	..	97	88	100	87	100	94	91
Kyrgyz Republic	..	97	..	97	..	98	..	100	..	100	99	98
Lao PDR	*43*	76	*48*	80	*38*	72	79	83	61	75	77	61
Latvia	..	*92*	..	*93*	..	*92*	..	100	..	100	100	100
Lebanon	..	90	..	88	..	91	95	..	89	..	..	..
Lesotho	59	67	42	55	76	79	77	..	97	..	74	90
Liberia	..	..	..	..	..	..	75	..	39	..	..	..
Libya	..	..	..	..	..	..	99	..	83	..	..	..
Lithuania	*89*	*98*	..	*99*	..	*97*	100	100	100	100	100	100
Macedonia, FYR	*98*	*96*	..	*96*	..	*97*	..	99	..	98	98	94
Madagascar	33	58	33	58	34	58	78	73	67	68	77	65
Malawi	28	61	36	62	21	59	76	82	51	71	75	54
Malaysia	91	*94*	91	*91*	91	*91*	95	97	94	97	92	85
Mali	11	38	13	45	9	31	..	32	..	17	27	12
Mauritania	33	45	40	46	26	43	56	68	36	55	60	43
Mauritius	107	97	107	97	107	98	91	94	91	95	88	81
Mexico	86	*99*	*89*	*98*	*90*	*100*	96	98	94	98	92	90
Moldova	..	92	..	93	..	91	100	99	100	100	99	98
Mongolia	..	97	..	94	..	99	..	97	..	98	98	98
Morocco	47	80	55	84	38	77	68	81	42	60	66	40
Mozambique	27	42	33	49	22	35	66	..	32	..	..	..
Myanmar	..	79	..	78	..	80	90	96	86	93	94	86
Namibia	*78*	75	*70*	71	*86*	80	86	91	89	93	87	83
Nepal	51	76[d]	*68*	80[d]	*40*	72[d]	67	81	27	60	63	35
Netherlands	..	*100*	..	*101*	..	99	..	..	..	..	..	..
New Zealand	100	..	101	..	99	..	..	..	..	..	..	..
Nicaragua	44	76	*43*	73	*59*	80	68	84	69	89	77	77
Niger	17	28	21	34	12	22	25	52	9	23	43	15
Nigeria	..	82	..	89	..	74	81	..	66	..	..	..
Norway	100	*101*	100	*101*	100	*101*	..	..	..	..	..	..
Oman	*74*	93	*78*	94	*70*	93	95	98	75	97	87	74
Pakistan	..	63	..	73	..	52	63	76	31	55	63	36
Panama	*86*	97	*86*	97	*86*	97	96	97	95	96	93	91
Papua New Guinea	47	*54*	52	*58*	42	*50*	74	69	62	64	63	51
Paraguay	71	*91*	70	*90*	71	*91*	96	..	95	..	..	..
Peru	..	*100*	..	*100*	..	*99*	97	98	92	96	93	82
Philippines	*86*	*97*	*84*	*93*	*84*	*100*	97	94	97	96	93	93
Poland	98	*100*	..	..	..	..	..	..	..	..	..	..
Portugal	95	*104*	94	*102*	95	*107*	..	..	..	..	..	..
Puerto Rico	..	..	..	..	..	..	..	..	..	..	..	..

2.12 Education completion and outcomes

	Primary completion rate						Youth literacy rate				Adult literacy rate	
	% of relevant age group						% ages 15–24				% ages 15 and older	
	Total[a]		Male[a]		Female[a]		Male		Female		Male	Female
	1991	2005[b]	1991	2005[b]	1991	2005[b]	1990	2006[c]	1990	2006[c]	2006[c]	2006[c]
Romania	96	93	96	94	96	93	99	98	99	98	98	96
Russian Federation	93	94	92	..	93	..	100	100	100	100	100	99
Rwanda	33	39	36	40	30	38	78	79	67	77	71	60
Saudi Arabia	56	85	60	85	51	86	91	98	79	94	87	69
Senegal	39	52	47	56	30	49	50	58	30	41	51	29
Serbia and Montenegro	71	..	..	..	..	..	..	99[e]	..	99[e]	99[e]	94[e]
Sierra Leone	..	..	..	..	..	..	..	59	..	37	47	24
Singapore	..	..	..	..	..	..	99	99	99	100	97	89
Slovak Republic	96	99	95	99	96	100	..	100	..	100	100	100
Slovenia	95	102	..	103	..	102	100	..	100	..	..	..
Somalia	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	75	99	71	99	80	99	89	93	88	94	84	81
Spain	..	109	..	110	..	109	..	..	..	..	..	..
Sri Lanka	97	..	98	..	96	..	96	95	94	96	92	89
Sudan	41	50	46	53	37	46	76[f]	85[f]	54[f]	71[f]	71[f]	52[f]
Swaziland	60	64	57	62	63	66	85	87	85	90	81	78
Sweden	96	..	96	..	96	..	..	..	..	..	..	..
Switzerland	53	97	53	96	54	98	..	..	..	..	..	..
Syrian Arab Republic	89	111	94	112	84	109	92	94	67	90	86	74
Tajikistan	..	102	..	104	..	100	100	100	100	100	100	99
Tanzania	61	54	60	55	62	53	89	81	77	76	78	62
Thailand	..	82	..	83	..	81	..	98	..	98	95	91
Togo	35	65	48	76	22	54	79	84	48	64	69	38
Trinidad and Tobago	100	99	97	97	102	100	100	..	100	..	..	..
Tunisia	74	97	79	97	69	98	93	96	75	92	83	65
Turkey	90	88	93	93	86	82	97	98	88	93	95	80
Turkmenistan	..	..	..	..	..	..	..	100	..	100	99	98
Uganda	..	57	..	61	..	53	80	83	60	71	77	58
Ukraine	94	114	98	..	97	..	100	100	100	100	100	99
United Arab Emirates	103	76	104	78	103	75	82	..	89	..	..	..
United Kingdom	..	..	..	..	..	..	..	..	..	..	..	..
United States	..	..	..	..	..	..	..	..	..	..	..	..
Uruguay	94	91	91	89	96	93	98	..	99	..	..	..
Uzbekistan	..	97	..	97	..	96	100	..	100	..	..	..
Venezuela, RB	43	92	37	89	49	95	95	96	97	98	93	93
Vietnam	..	94	..	104	..	98	94	94	94	94	94	87
West Bank and Gaza	..	98	..	98	..	98	..	99	..	99	97	88
Yemen, Rep.	..	62	..	78	..	46	74	..	25	..	..	..
Zambia	..	78	..	89	..	66	86	73	76	66	76	60
Zimbabwe	99	80	100	82	97	79	97	..	91	..	..	..
World	**.. w**	**85 w**	**.. w**	**87 w**	**.. w**	**83 w**	**.. w**	**90 w**	**.. w**	**84 w**	**87 w**	**77 w**
Low income	60	74	70	79	49	69	73	80	55	67	71	50
Middle income	93	96	96	96	90	95	95	97	91	95	93	87
Lower middle income	94	97	99	97	91	96	95	97	90	95	93	85
Upper middle income	87	95	86	95	87	95	97	98	95	98	96	93
Low & middle income	79	84	85	86	73	81	86	89	77	82	85	72
East Asia & Pacific	100	98	105	98	96	98	97	98	93	97	95	87
Europe & Central Asia	91	92	93	93	92	91	99	99	97	99	99	96
Latin America & Carib.	83	98	82	98	84	99	93	96	93	96	91	89
Middle East & N. Africa	77	89	83	92	71	86	80	89	59	77	81	61
South Asia	76	82	86	86	65	77	70	80	50	63	70	45
Sub-Saharan Africa	50	58	55	63	46	53	76	78	61	68	70	53
High income	..	97	..	98	..	97	..	99	..	99	99	98
Europe EMU	..	..	..	..	..	..	..	..	..	..	..	..

a. Because of the change from International Standard Classification of Education (ISCED) 76 to ISCED 97 in 1998, data before 1998 are not fully comparable with data from 1998 onward. b. Provisional data. c. Actual reference year varies by country. For more information, see the original source. d. Data are for 2006. e. Data exclude Kosovo and Metohia. f. Data are for North Sudan only.

Education completion and outcomes 2.12

About the data

Many governments collect and publish statistics that indicate how their education systems are working and developing—statistics on enrollment and on such efficiency indicators as repetition rates, pupil-teacher ratios, and cohort progression through school. The World Bank and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics worked jointly to develop the primary completion rate indicator. Increasingly used as a core indicator of an education system's performance, it reflects both the coverage of the education system and the educational attainment of students. The indicator is vital as a key measure of educational outcome at the primary level and of progress on the Millennium Development Goals and the Education for All initiative. However, because curricula and standards for school completion vary across countries, a high rate of primary completion does not necessarily mean high levels of student learning.

The primary completion rate reflects the primary cycle as defined by the International Standard Classification of Education, ranging from three or four years of primary education (in a very small number of countries) to five or six years (in most countries) and seven (in a small number of countries).

The data in the table are for the proxy primary completion rate, calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age. Data limitations preclude adjusting this number for students who drop out during the final year of primary school. Thus proxy rates should be taken as an upper-bound estimate of the actual primary completion rate.

There are many reasons why the primary completion rate can exceed 100 percent. The numerator may include late entrants and overage children who have repeated one or more grades of primary school but are now completing primary school as well as children who entered school early, while the denominator is the number of children of official completing age. There are other data limitations that contribute to completion rates exceeding 100 percent, such as the use of estimates for the population with varying reliability for some countries, the conduct of school and population surveys at different times of year, and other discrepancies in the numbers used in the calculation.

Basic student outcomes include achievements in reading and mathematics judged against established standards. In many countries national learning assessments are enabling ministries of education to monitor progress in these outcomes. Internationally, the UNESCO Institute for Statistics has established literacy as an outcome indicator based on an internationally agreed definition.

The literacy rate is defined as the percentage of people who can, with understanding, both read and write a short, simple statement about their everyday life. In practice, literacy is difficult to measure. To estimate literacy using such a definition requires census or survey measurements under controlled conditions. Many countries estimate the number of literate people from self-reported data. Some use educational attainment data as a proxy but apply different lengths of school attendance or levels of completion. Because definition and methodologies of data collection differ across countries, data need to be used with caution.

The reported literacy data are compiled by the UNESCO Institute for Statistics based on national censuses and household surveys during 1995–2005. The data for 1991 are based on model estimations. Therefore the data for 1991 and later years may not be comparable. The estimation methodology can be reviewed at www.uis.unesco.org.

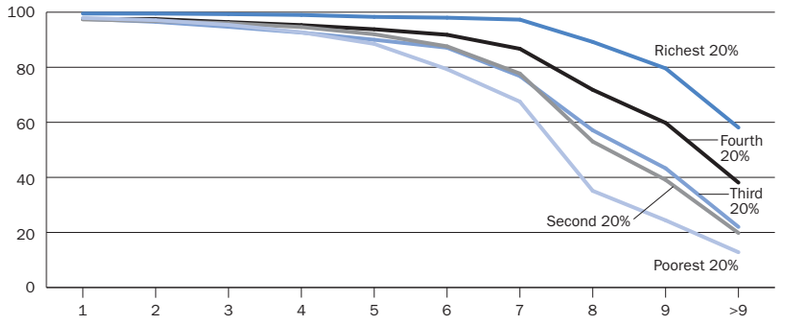
Literacy statistics for most countries cover the population ages 15 and older, by five-year age groups, but some include younger ages or are confined to age ranges that tend to inflate literacy rates. The UNESCO Institute for Statistics has reported the narrower age range of 15–24, which is better in capturing the ability of participants in the formal education system and in reflecting recent progress in education. The youth literacy rate reported in the table measures the accumulated outcomes of primary education over the previous 10 years or so by indicating the proportion of people who have passed through the primary education system and acquired basic literacy and numeracy skills.

Definitions

• **Primary completion rate** is the percentage of students completing the last year of primary school. It is calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official completing age. • **Youth literacy rate** is the percentage of people ages 15–24 that can, with understanding, both read and write a short, simple statement about their everyday life. • **Adult literacy rate** is the literacy rate among people ages 15 and older.

Children from poorer families are less likely to complete their schooling 2.12a

Share of children who have attained each grade, by wealth quintile, Zimbabwe, 1999 (%)



Source: Demographic and Health Survey.

Data sources

Data on the primary completion rate for 1991 and 2005 are primarily from the UNESCO Institute for Statistics. The data for the latest years are provisional, as of January 2007. Data on literacy rates are from the UNESCO Institute for Statistics.

2.13 Education gaps by income and gender

	Survey year	Gross intake rate in grade 1		Gross primary participation rate		Average years of schooling		Primary completion rate				Children out of school	
		% of relevant age group		% of relevant age group		ages 15–24		% of relevant age group				% of children ages 6–11	
		Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Male	Female	Poorest quintile	Richest quintile
Armenia	2000	105	93	177	181	9	11	96	98	96	98	14	13
Bangladesh	2004	193	156	107	120	3	8	26	70	47	58	25	10
Benin	2001	74	112	51	115	1	6	7	45	23	15	66	21
Bolivia	2003	98	95	92	98	6	11	48	90	75	75	24	5
Burkina Faso	2003	24	97	20	98	1	6	8	52	24	20	87	32
Cambodia	2000	146	187	78	134	2	7	4	45	18	17	50	12
Cameroon	2004	115	100	94	122	3	9	12	69	36	37	42	4
Central African Republic	1994–95	103	118	57	130	2	6	0[a]	18	8	6	65	21
Chad	2004	3	14	15	98	0[a]	5	1	36	15	8	91	36
Colombia	2005	157	85	126	99	6	11	50	90	70	77	8	1
Comoros	1996	84	119	56	147	2	6	4	29	12	12	72	26
Côte d'Ivoire	1994	26	39	41	103	2	6	6	41	25	17	70	23
Dominican Republic	2002	170	103	149	156	6	11	38	87	57	69	14	4
Egypt, Arab Rep.	2003	87	120	96	103	6	11	58	87	77	71	24	5
Eritrea	1995	55	117	42	154	1	7	3	65	21	24	84	10
Ethiopia	2000	87	257	61	186	1	5	4	44	15	12	87	42
Gabon	2000	..	..	155	140	5	8	12	60	35	40	8	3
Ghana	2003	90	90	71	108	4	9	15	66	38	41	57	20
Guatemala	1995	114	124	62	122	2	9	9	76	41	40	58	8
Guinea	1999	13	39	10	38	1	5	3	27	18	9	95	77
Haiti	2000	141	200	94	152	3	8	1	40	13	18	64	21
India	1999	99	72	87	122	3	10	31	87	64	55	35	2
Indonesia	2002–03	85	92	103	104	7	11	75	97	86	89	19	6
Jordan	2002	..	..	101	99	10	12	93	98	97	97	11	9

About the data

The data in the table describe basic information on school participation and attainment by individuals in different socioeconomic groups within countries. The data are from Demographic and Health Surveys conducted by Macro International with the support of the U.S. Agency for International Development. These large-scale household sample surveys, conducted periodically in developing countries, collect information on a large number of health, nutrition, and population measures as well as on respondents' social, demographic, and economic characteristics using a standard set of questionnaires. The data presented here draw on responses to individual and household questionnaires.

Typically, Demographic and Health Surveys collect basic information on educational attainment and enrollment levels from every household member ages 5 or 6 and older as background characteristics. As the surveys are intended for the collection of demographic and health information, the education section of the survey is not as robust and detailed as the health section; however, it still provides useful micro-level information on education that cannot be explained by aggregate national level data.

The table defines socioeconomic status in terms of a household's assets, including ownership of consumer items, features of the household's dwelling, and other characteristics related to wealth. Each household asset on which information was collected was assigned a weight generated through principal-component analysis. The resulting scores were standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one. The standardized scores were then used to create break-points defining wealth quintiles, expressed as quintiles of individuals in the population.

The choice of the asset index for defining socioeconomic status was based on pragmatic rather than conceptual considerations: Demographic and Health Surveys do not provide income or consumption data but do have detailed information on households' ownership of consumer goods and access to a variety of goods and services. Like income or consumption, the asset index defines disparities in primarily economic terms. It therefore excludes other possibilities of disparities among groups, such as those based on gender, education, ethnic background, or other facets of social exclusion. To that extent the index provides only a partial view of the multidimensional concepts of poverty, inequality, and inequity.

Creating one index that includes all asset indicators limits the types of analysis that can be performed. In particular, the use of a unified index does not permit a disaggregated analysis to examine which asset indicators have a more or less important association with health status or use of health services. In addition, some asset indicators may reflect household wealth better in some countries than in others—or reflect different degrees of wealth in different countries. Taking such information into

2.13 Education gaps by income and gender

	Survey year	Gross intake rate in grade 1		Gross primary participation rate		Average years of schooling		Primary completion rate				Children out of school	
		% of relevant age group		% of relevant age group		ages 15–24		% of relevant age group				% of children ages 6–11	
		Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Male	Female	Poorest quintile	Richest quintile
Kazakhstan	1999	..	..	125	130	10	11	98	100	98	99	24	18
Kenya	2003	128	123	104	118	5	9	14	57	30	36	24	4
Kyrgyz Republic	1997	..	..	133	138	10	10	86	88	85	87	21	18
Madagascar	1997	84	87	59	134	2	7	1	47	13	16	60	6
Malawi	2002	180	226	103	126	4	8	10	52	32	14	29	9
Mali	2001	45	89	36	101	1	5	3	37	16	11	75	29
Morocco	2003–04	109	85	98	116	2	9	17	78	47	46	26	2
Mozambique	2003	104	134	79	150	2	5	2	17	8	7	59	13
Namibia	1992	..	..	138	116	5	8	15	65	25	34	22	9
Nepal	2001	240	249	116	160	3	7	18	59	37	28	33	6
Nicaragua	2001	127	108	79	104	3	10	14	88	47	59	46	5
Niger	1998	11	69	15	77	1	4	8	46	22	13	90	44
Nigeria	2003	77	106	67	111	4	10	16	70	39	37	56	5
Pakistan	1990–91	68	173	45	127	2	8	11	55	32	22	72	13
Paraguay	1990	137	106	103	114	5	10	29	77	49	54	21	10
Peru	2000	114	94	112	109	6	11	41	93	72	72	9	1
Philippines	2003	131	102	103	102	6	11	46	88	67	79	17	2
Rwanda	2000	216	197	100	126	3	6	7	28	14	14	43	23
Tanzania	1999	95	231	63	119	4	7	27	55	34	34	74	27
Uganda	2000–01	145	127	106	120	4	8	7	43	19	21	28	6
Uzbekistan	1996	..	..	102	114	10	10	84	87	84	86	29	23
Vietnam	2002	121	105	139	127	5	10	58	97	84	84	8	2
Zambia	2001–02	83	119	74	112	4	9	16	79	38	43	61	18
Zimbabwe	1994	138	114	104	109	7	10	36	80	51	57	22	8

a. Less than 0.5.

Definitions

account and creating country-specific asset indexes with country-specific choices of asset indicators might produce a more effective and accurate index for each country. The asset index used in the table does not have this flexibility.

The analysis was carried out for 48 countries. The table shows the estimates for the poorest and richest quintiles only; the full set of estimates for 32 indicators is available in the country reports (see *Data sources*). The data in this table will differ from data for similar indicators in preceding tables either because the indicator refers to a period a few years preceding the survey date or because the indicator definition or methodology is different. Findings should be interpreted with caution because of measurement error inherent in the use of survey data.

• **Survey year** is the year in which the underlying data were collected. • **Gross intake rate in grade 1** is the number of students in the first grade of primary education, regardless of age, expressed as a percentage of the population of the official primary school entrance age. These data may differ from those in table 2.11. • **Gross primary participation rate** is the ratio of total students attending primary school, regardless of age, to the population of the age group that officially corresponds to primary education. • **Average years of schooling** are the years of formal schooling received, on average, by adults ages 15–24. • **Primary completion rate** is the percentage of children of the official primary school completing age to the official primary school completing age plus four, who have completed the last year of primary school or higher. These data differ from those in table 2.12 as the definition and methodology are different. • **Children out of school** are the percentage of children ages 6–11 who are not in school. These data differ from those in table 2.10 because the definition and methodology are different.

Data sources

Data on education gaps by income and gender are from an analysis of Demographic and Health Surveys by Macro International and the World Bank. Country reports are available at http://devdata.worldbank.org/edstats/td16.asp.

2.14 Health expenditure, services, and use

	Health expenditure						Physicians		Health worker density index	Hospital beds	
		Public							Physicians, nurses, and midwives		
	Total % of GDP	% of GDP	% of total	Out of pocket % of private	External resources[a] % of total	Per capita $	per 1,000 people		per 1,000 people	per 1,000 people	
	2004	2004	2004	2004	2004	2004	1990	2000–05[b]	2000–03[b]	1990	2000–05[b]
Afghanistan	4.4	0.7	16.9	97.7	6.1	14	0.1	0.2	0.4	0.2	0.4
Albania	6.7	3.0	44.1	99.8	2.4	157	1.4	1.3	5.4	4.0	3.1
Algeria	3.6	2.6	72.5	94.6	0.0	94	0.9	1.1	..	2.5	..
Angola	1.9	1.5	79.4	100.0	9.1	26	0.0[c]	0.1	..	1.3	..
Argentina	9.6	4.3	45.3	48.7	0.2	383	2.7	..	..	4.6	4.1
Armenia	5.4	1.4	26.2	89.2	7.2	63	3.9	3.6	8.8	9.1	4.4
Australia	9.6	6.5	67.5	61.6	0.0	3,123	2.2	2.5	10.8	9.2	7.4
Austria	10.3	7.8	75.6	67.9	0.0	3,683	2.2	3.4	9.3	10.2	8.3
Azerbaijan	3.6	0.9	25.0	93.6	1.6	37	3.9	3.5	12.0	10.1	8.3
Bangladesh	3.1	0.9	28.1	88.3	15.1	14	0.2	0.3	0.5	0.3	..
Belarus	6.2	4.6	74.9	72.7	*0.1*	147	3.6	4.6	17.5	13.2	11.3
Belgium	9.7	6.9	71.1	83.5	0.0	3,363	3.3	3.9	15.6	8.0	6.9
Benin	4.9	2.5	51.2	99.9	10.2	24	0.1	0.0[c]	..	0.8	..
Bolivia	6.8	4.1	60.7	82.5	9.1	66	0.4	1.2	1.1	1.3	1.0
Bosnia and Herzegovina	8.3	4.1	49.4	100.0	1.3	198	1.6	1.3	5.7	4.5	3.1
Botswana	6.4	4.0	62.9	27.9	2.5	329	*0.2*	0.4	..	1.6	..
Brazil	8.8	4.8	54.1	64.2	0.0	290	1.4	2.1	2.6	3.3	2.7
Bulgaria	8.0	4.6	57.6	98.0	1.0	251	3.2	3.6	8.3	9.8	6.3
Burkina Faso	6.1	3.3	54.8	97.9	26.8	24	*0.0*[c]	0.1	0.3	0.3	..
Burundi	3.2	0.8	26.2	100.0	17.6	3	0.1	0.0[c]	0.3	*0.7*	..
Cambodia	6.7	1.7	25.8	85.4	28.5	24	*0.1*	0.2	1.0	2.1	0.6
Cameroon	5.2	1.5	28.0	94.5	5.3	51	0.1	0.2	..	2.6	..
Canada	9.8	6.8	69.8	49.4	0.0	3,038	2.1	2.1	12.2	6.0	3.7
Central African Republic	4.1	1.5	36.8	95.4	47.7	13	0.0[c]	0.1	..	0.9	..
Chad	4.2	1.5	36.9	95.8	7.0	20	*0.0*[c]	0.0[c]	0.2	*0.7*	..
Chile	6.1	2.9	47.0	45.9	0.1	359	1.1	1.1	1.7	3.2	2.6
China	4.7	1.8	38.0	86.5	0.1	71	1.5	1.5	2.7	2.6	2.5
Hong Kong, China	..	..	..	..	..	..	..	..	..	..	..
Colombia	7.8	6.7	86.0	49.0	0.1	168	1.1	1.4	1.9	1.4	1.1
Congo, Dem. Rep.	4.0	1.1	28.1	100.0	19.1	5	0.1	0.1	..	1.4	..
Congo, Rep.	2.5	1.2	49.2	100.0	3.6	28	0.3	0.2	..	3.3	..
Costa Rica	6.6	5.1	77.0	88.7	0.8	290	1.3	1.3	2.4	2.5	1.4
Côte d'Ivoire	3.8	0.9	23.2[d]	88.7	5.0	33	0.1	0.1	..	0.8	..
Croatia	8.0[d]	6.1[d]	81.0	93.8	0.4	609	2.1	2.4	7.7	7.4	5.5
Cuba	6.3	5.5	87.8	74.5	0.3	230	3.6	5.9	13.4	5.4	4.9
Czech Republic	7.3	6.5	89.2	95.5	0.0	771	2.7	3.5	13.4	11.3	8.8
Denmark	8.6	7.1	82.3	81.3	0.0	3,897	2.5	2.9	13.6	5.6	4.0
Dominican Republic	6.0	1.9	31.6	73.1	1.5	148	1.5	1.9	3.7	1.9	2.1
Ecuador	5.5	2.2	40.7	85.4	0.8	127	1.5	1.5	3.1	1.6	1.5
Egypt, Arab Rep.	5.9	2.2	37.0	*99.0*	*0.8*	64	0.8	0.5	4.9	2.1	2.2
El Salvador	7.9	3.5	44.4	94.2	1.2	184	0.8	1.2	2.0	1.5	..
Eritrea	4.5	1.8	39.2	100.0	59.6	10	..	0.1	..	..	..
Estonia	5.3	4.0	76.0	88.8	0.5	463	3.5	3.2	9.8	11.6	6.0
Ethiopia	5.3	2.7	51.5	78.3	35.2	6	*0.0*[c]	0.0[c]	0.2	0.2	..
Finland	7.4	5.7	77.2	80.8	0.0	2,664	2.0	2.6	25.6	12.5	7.2
France	10.5	8.2	78.4	34.9	0.0	3,464	3.1	3.4	10.2	9.7	7.7
Gabon	4.5	3.1	68.8	100.0	1.3	231	*0.5*	0.3	..	3.2	..
Gambia, The	6.8	1.8	27.1	68.2	23.0	19	..	0.1	..	0.6	..
Georgia	5.3	1.5	27.4	87.2	9.8	60	4.9	4.1	7.9	9.8	4.2
Germany	10.6	8.2	76.9	57.5	0.0	3,521	*2.8*	3.4	13.2	10.4	8.9
Ghana	6.7	2.8	42.2	78.2	29.9	27	*0.0*[c]	0.2	0.9	1.5	..
Greece	7.9	4.2	52.8	95.7	..	1,879	3.4	4.4	7.5	5.1	4.7
Guatemala	5.7	2.3	41.0	90.5	2.3	127	0.8	..	..	1.1	0.5
Guinea	5.3	0.7	13.2	99.5	9.5	22	0.1	0.1	0.6	0.6	..
Guinea-Bissau	4.8	1.3	27.3	90.0	31.6	9	..	0.1	..	1.5	..
Haiti	7.6	2.9	38.5	69.6	14.2	33	0.1	..	..	0.8	0.8

2.14 Health expenditure, services, and use

	Health expenditure						Physicians		Health worker density index	Hospital beds	
	Total % of GDP	Public % of GDP	Public % of total	Out of pocket % of private	External resources[a] % of total	Per capita $	per 1,000 people		Physicians, nurses, and midwives per 1,000 people	per 1,000 people	
	2004	2004	2004	2004	2004	2004	1990	2000–05[b]	2000–03[b]	1990	2000–05[b]
Honduras	7.2	4.0	54.9	84.3	8.7	77	0.7	0.6	..	1.0	1.0
Hungary	7.9	5.7	71.6	88.0	0.4	800	2.8	3.2	11.9	..	7.8
India	5.0	0.9	17.3	93.8	0.5	31	*0.5*	0.6	..	*0.8*	0.9
Indonesia	2.8	1.0	34.2	74.7	1.3	33	0.1	0.1	0.7	0.7	..
Iran, Islamic Rep.	6.6	3.2	47.8	94.8	0.2	158	*0.3*	0.4	..	1.4	1.6
Iraq	5.3[e]	4.2[e]	78.5[e]	100.0[e]	2.5[e]	58[e]	0.6	0.7	3.6	1.7	1.3
Ireland	7.2	5.7	79.5	65.9	0.0	3,234	*2.0*	2.8	19.0	6.1	4.3
Israel	8.7	6.1	70.0	75.0	3.2	1,534	3.2	3.8	10.3	6.2	6.1
Italy	8.7	6.5	75.1	84.4	0.0	2,580	..	4.2	10.5	7.2	4.4
Jamaica	5.2	2.8	54.3	63.6	1.4	176	0.6	0.8	2.5	2.2	1.4
Japan	7.8	6.3	81.0	93.4	0.0	2,831	1.7	2.0	10.4	..	14.3
Jordan	9.8[f]	4.7[f]	48.4[f]	73.8	7.1[f]	200[f]	*1.3*	2.0	4.8	1.8	1.7
Kazakhstan	3.8	2.3	59.8	100.0	0.9	109	4.0	3.5	9.5	13.7	7.7
Kenya	4.1	1.8	42.7	81.9	18.3	20	0.0[c]	0.1	..	1.6	..
Korea, Dem. Rep.	3.5	3.0	85.6	100.0	53.6	0[g]	..	3.3	..	..	..
Korea, Rep.	5.6	2.9	51.4	76.0	0.0	787	0.8	1.6	5.4	3.1	7.1
Kuwait	2.8	2.2	77.6	90.4	0.0	633	0.2	1.5	5.4	*3*	2.2
Kyrgyz Republic	5.6	2.3	40.9	94.3	15.1	24	3.4	2.5	10.1	12.0	5.3
Lao PDR	3.9	0.8	20.5	90.3	10.2	17	0.2	..	..	2.6	1.2
Latvia	7.1	4.0	56.6	98.3	0.3	418	4.1	3.0	8.2	14.1	7.8
Lebanon	11.6	3.2	27.4	82.2	1.7	670	*1.3*	3.3	4.4	1.7	3.0
Lesotho	6.5	5.5	84.2	18.2	8.7	49	0.0[c]	0.0[c]	..	..	..
Liberia	5.6	3.6	63.9	98.5	37.8	9	..	0.0[c]	..	..	..
Libya	3.8	2.8	74.9	100.0	0.0	195	1.1	..	..	4.2	3.9
Lithuania	6.5	4.9	75.0	96.8	3.1	424	4.0	4.0	12.4	12.5	8.7
Macedonia, FYR	8.0	5.7	71.0	100.0	1.4	212	2.2	2.2	8.1	5.9	4.8
Madagascar	3.0	1.8	59.1	52.5	45.5	7	0.1	0.3	0.4	0.9	0.4
Malawi	12.9	9.6	74.7	35.2	59.4	19	0.0[c]	0.0[c]	0.3	1.6	..
Malaysia	3.8	2.2	58.8	74.1	0.1	180	0.4	0.7	2.4	2.1	1.9
Mali	6.6	3.2	49.2	99.5	13.8	24	0.1	0.1	0.2	..	..
Mauritania	2.9	2.0	69.4	100.0	20.2	15	0.1	0.1	..	0.7	..
Mauritius	4.3	2.4	54.7	80.8	1.4	222	0.8	1.1	..	*2.9*	..
Mexico	6.5	3.0	46.4	94.4	0.3	424	1.0	1.5	3.9	1.0	1.0
Moldova	7.4	4.2	56.8	96.0	4.8	46	3.6	2.6	9.2	13.1	6.7
Mongolia	6.0	4.0	66.6	92.3	4.6	37	2.5	2.6	6.0	*11.5*	..
Morocco	5.1	1.7	34.3	76.0	0.9	82	*0.2*	0.5	1.5	1.3	0.8
Mozambique	4.0	2.7	68.4	38.5	55.9	12	0.0[c]	0.0[c]	0.3	0.9	..
Myanmar	2.2	0.3	12.9	99.4	13.1	5	0.1	0.4	0.8	0.6	0.6
Namibia	6.8	4.7	69.0	18.1	16.9	190	*0.2*	0.3	..	..	..
Nepal	5.6	1.5	26.3	88.1	17.6	14	0.1	0.2	0.3	0.2	..
Netherlands	9.2	5.7	62.4	20.6	0.0	3,442	2.5	3.1	16.7	5.8	4.7
New Zealand	8.4	6.5	77.4	76.1	0.0	2,040	1.9	2.2	10.9	8.5	6.1
Nicaragua	8.2	3.9	47.1	95.9	11.3	67	0.7	0.4	1.8	1.8	0.9
Niger	4.2	2.2	52.5	85.1	21.3	9	0.0[c]	0.0[c]	0.3	..	..
Nigeria	4.6	1.4	30.4	90.4	5.6	23	*0.2*	0.3	1.5	1.7	..
Norway	9.7	8.1	83.5	95.2	0.0	5,405	*2.6*	3.1	24.9	4.6	3.8
Oman	3.0	2.4	81.4	57.1	0.0	295	0.6	1.3	4.2	2.1	2.0
Pakistan	2.2	0.4	19.6	98.0	2.5	14	0.5	0.7	1.1	0.6	0.7
Panama	7.7	5.2	66.9	82.5	0.2	343	1.6	1.5	3.2	2.5	2.5
Papua New Guinea	3.6	3.0	84.3	46.4	26.5	30	0.1	0.1	0.6	4.0	..
Paraguay	7.7	2.6	33.7	72.2	1.9	88	0.6	1.1	1.4	0.9	1.2
Peru	4.1	1.9	46.9	79.2	1.3	104	1.1	..	..	1.4	1.4
Philippines	3.4	1.4	39.8	77.9	3.6	36	0.1	1.2	7.4	1.4	1.0
Poland	6.2	4.3	68.6	89.6	0.1	411	2.1	2.5	7.7	5.7	5.6
Portugal	9.8	7.0	71.6	79.4	0.0	1,665	2.8	3.3	7.0	4.1	3.6
Puerto Rico	..	..	..	..	..	..	..	..	..	..	..

2.14 Health expenditure, services, and use

	Health expenditure						Physicians		Health worker density index	Hospital beds	
	Total % of GDP	Public % of GDP	Public % of total	Out of pocket % of private	External resources[a] % of total	Per capita $	per 1,000 people		Physicians, nurses, and midwives per 1,000 people	per 1,000 people	
	2004	2004	2004	2004	2004	2004	1990	2000–05[b]	2000–03[b]	1990	2000–05[b]
Romania	5.1	3.4	66.1	93.4	25.0	178	1.8	1.9	6.2	8.9	6.6
Russian Federation	6.0	3.7	61.3	76.7	0.1	245	4.1	4.3	12.5	13.1	10.5
Rwanda	7.5	4.3	56.8	36.9	37.1	16	*0.0*[c]	0.0[c]	0.2	1.7	..
Saudi Arabia	3.3	2.5	75.4	31.0	..	348	1.4	1.4	4.4	2.5	2.2
Senegal	5.9	2.4	40.3	94.5	12.8	39	0.1	0.1	..	0.7	..
Serbia and Montenegro	10.1[h]	7.3[h]	72.1[h]	88.2[h]	0.5[h]	219[h]	2.0	2.1	..	5.9	6.0
Sierra Leone	3.3	1.9	59.0	100.0	35.4	7	..	0.0[c]	..	..	..
Singapore	3.7	1.3	34.0	96.9	0.0	943	1.3	1.4	5.6	3.6	2.9
Slovak Republic	7.2	5.3	73.8	73.1	0.0	565	..	3.1	10.6	7.4	7.2
Slovenia	8.7	6.6	75.6	39.5	*0.1*	1,438	2.0	2.3	9.4	6.0	5.0
Somalia	..	..	..	..	..	..	..	..	..	0.8	..
South Africa	8.6	3.5	40.4	17.2	0.5	390	*0.6*	0.8	4.6	..	..
Spain	8.1	5.7	70.9	81.0	0.0	1,971	..	3.2	6.8	4.6	3.8
Sri Lanka	4.3	2.0	45.6	84.0	1.2	43	*0.1*	0.5	1.2	2.7	3.1
Sudan	4.1	1.5	35.4	98.1	5.1	25	..	0.2	1.0	1.1	0.7
Swaziland	6.3	4.0	63.8	40.2	9.5	146	0.1	0.2	3.4	..	..
Sweden	9.1	7.7	84.9	92.0	0.0	3,532	2.9	3.3	13.5	12.4	3.6
Switzerland	11.5	6.7	58.5	76.7	0.0	5,572	3.0	3.6	12.1	*19.9*	6.0
Syrian Arab Republic	4.7	2.2	47.4	100.0	0.2	58	0.8	1.4	3.3	1.1	1.5
Tajikistan	4.4	1.0	21.6	97.3	9.1	14	2.6	2.0	7.2	10.7	6.1
Tanzania	4.0	1.7	43.6	83.2	27.1	12	..	0.0[c]	0.4	1.0	..
Thailand	3.5	2.3	64.7	74.7	0.3	88	0.2	0.4	..	1.6	..
Togo	5.5	1.1	20.7	84.9	8.9	18	*0.1*	0.0[c]	0.3	1.5	..
Trinidad and Tobago	3.5	1.4	38.9	88.5	0.2	329	0.7	..	..	4.0	3.4
Tunisia	*5.6*	*2.8*	*50.0*	..	..	*126*	0.5	1.3	..	1.9	1.7
Turkey	7.7	5.2[e]	72.3	69.1	0.0	325	0.9	1.3	4.2	2.4	2.6
Turkmenistan	4.8	3.3	68.9	100.0	0.4	124	3.6	4.2	..	11.5	..
Uganda	7.6	2.5	32.7	51.3	25.2	19	*0.0*[c]	0.1	0.1	*0.9*	..
Ukraine	6.5	3.7	56.7	90.5	0.7	90	4.3	3.0	11.2	13.0	8.8
United Arab Emirates	2.9	2.0	69.9	71.0	0.0	711	0.8	2.0	6.2	2.6	2.2
United Kingdom	8.1	7.0	86.3	91.8	0.0	2,900	1.6	2.2	..	5.9	4.2
United States	15.4	6.9	44.7	23.8	0.0	6,096	1.8	2.3	13.2	4.9	3.3
Uruguay	8.2	3.6	43.5	31.1	0.3	315	3.7	3.7	4.5	4.5	1.9
Uzbekistan	5.1	2.4	46.6	96.2	3.9	23	3.4	2.7	13.7	12.5	5.5
Venezuela, RB	4.7	2.0	42.0	88.3	0.0	196	1.6	1.9	2.6	2.7	0.8
Vietnam	5.5	1.5	27.1	88.0	2.0	30	0.4	0.5	1.3	3.8	2.4
West Bank and Gaza	*13.0*	*7.8*	60.0	*100.0*	*42.0*	..	..	0.8	..	..	..
Yemen, Rep.	5.0	1.9	38.3	95.5	15.0	34	0.0[c]	0.3	0.7	0.8	0.6
Zambia	6.3	3.4	54.7	71.4	36.3	30	0.1	0.1	..	..	..
Zimbabwe	7.5	3.5	46.1	48.7	13.1	27	0.1	0.2	0.6	0.5	..
World	**10.1 w**	**5.9 w**	**59.1 w**	**44.4 w**	**0.1 w**	**649 w**	**1.4 w**	**.. w**	**.. w**	**3.7 w**	**.. w**
Low income	4.7	1.1	23.8	94.0	5.4	24	*0.5*	0.5	..	..	..
Middle income	5.9	3.1	52.6	77.0	0.6	141	1.6	1.5	..	3.6	..
Lower middle income	5.4	2.6	47.7	81.0	0.5	92	1.4	1.3	..	2.8	..
Upper middle income	6.6	3.8	57.8	71.7	0.7	342	2.3	2.7	7.5	6.7	5.7
Low & middle income	5.8	2.8	49.3	80.8	1.2	90	1.3	..	..	3.1	..
East Asia & Pacific	4.4	1.7	39.8	87.6	0.5	62	1.2	1.5	3.0	2.3	2.5
Europe & Central Asia	6.6	4.5	67.8	82.1	1.1	250	3.2	3.1	10.3	10.2	7.6
Latin America & Carib.	7.3	3.7	51.9	74.1	0.4	272	1.4	..	..	2.5	..
Middle East & N. Africa	5.6	2.7	48.9	89.7	1.3	103	..	..	..	1.8	..
South Asia	4.6	0.9	18.8	93.6	1.5	27	*0.5*	0.6	..	*0.7*	0.9
Sub-Saharan Africa	6.3	2.6	41.8	44.8	6.8	45	..	..	..	1.2	..
High income	11.2	6.7	60.4	37.8	0.0	3,727	1.9	2.6	..	6.2	6.4
Europe EMU	9.6	7.2	74.7	59.9	0.0	2,969	2.9	3.5	12.2	8.1	6.6

a. 0 for category not applicable or less than 0.05. b. Data are for the most recent year available. c. Less than 0.05. d. Data are for 2005. e. Excludes northern Iraq. f. Includes contributions from the United Nations Relief and Works Agency for Palestine Refugees in the Near East to Palestinian refugees. g. Less than 0.5. h. Excludes Kosovo and Metahia.

Health expenditure, services, and use 2.14

About the data

National health accounts track financial flows in the health sector, including public and private expenditures, by source of funding. In contrast with high-income countries, few developing countries have health accounts that are methodologically consistent with national accounting approaches. The difficulties in creating national health accounts go beyond data collection. To establish a national health accounting system, a country needs to define the boundaries of the health care system and to define a taxonomy of health care delivery institutions. The accounting system should be comprehensive and standardized, providing not only accurate measures of financial flows but also information on the equity and efficiency of health financing to inform health policy.

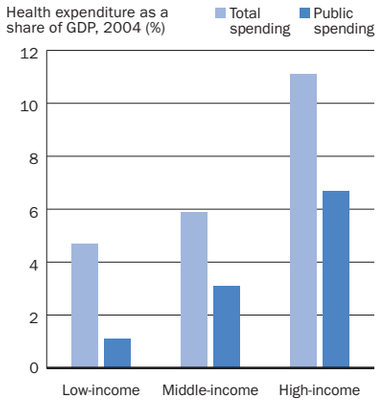
The absence of consistent national health accounting systems in most developing countries makes cross-country comparisons of health spending difficult. Compiling estimates of public health expenditures is complicated in countries where state or provincial and local governments are involved in financing and delivering health care, because the data on public spending often are not aggregated. There are a number of potential data sources related to external resources for health, including government expenditure accounts, government records on external assistance, routine surveys of external financing assistance, and special surveys. Survey data are the major source of information about out of pocket expenditure on health. The data in the table are the product of an effort by the World Health Organization (WHO), the Organisation for Economic Co-operation and Development (OECD), and the World Bank to collect all available information on health expenditures from national and local government budgets, national accounts, household surveys, insurance publications, international donors, and existing tabulations.

Indicators on health services (physicians, health worker density, and hospital beds per 1,000 people) come from a variety of sources (see *Data sources*). Data are lacking for many countries, and for others comparability is limited by differences in definitions. In estimates of health personnel, for example, some countries incorrectly include retired physicians (because deletions to physician rosters are made only periodically) or physicians working outside the health sector. There is no universally accepted definition of hospital beds. Moreover, figures on physicians and hospital beds are indicators of availability, not of quality or use. They do not show how well trained the physicians are or how well equipped the hospitals or medical centers are. And physicians and hospital beds tend to be concentrated in urban areas, so these indicators give only a partial view of health services available to the entire population.

The WHO receives data on health professionals from ministries of health through its six regional offices, often in cooperation with national statistical offices. The data are scrutinized using such additional resources as national and international employment surveys, records from professional associations, and other publications. Significant inconsistencies are returned to national authorities for validation and resubmission.

The health worker density index indicates the overall level of health workers (physicians, nurses, and midwives) in the country. Dentists and pharmacists are not included. Comparability of the index across countries is affected by differences in the definition of health workers. Many countries continue to use national definitions and classifications for data collection, and some countries provide information only for public sector workers.

Differences in healthcare expenditures contribute to global disparities in health outcomes **2.14a**



Source: World Health Organization, Organisation for Economic Co-operation and Development, and World Bank.

Definitions

• **Total health expenditure** is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. • **Public health expenditure** consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. • **Out of pocket health expenditure** is any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups. It is a part of private health expenditure. • **External resources for health** are funds or services in kind that are provided by entities not part of the country in question. The resources may come from international organizations, other countries through bilateral arrangements, or foreign nongovernmental organizations. These resources are part of total health expenditure. • **Health expenditure per capita** is total health expenditure divided by number of people in the country. • **Physicians** are graduates of any faculty or school of medicine who are working in the country in any medical field (practice, teaching, or research). • **Health worker density index** reflects a combined density of physicians, nurses, and midwives per 1,000 people. • **Hospital beds** include inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centers. In most cases beds for both acute and chronic care are included.

Data sources

Data on health expenditure come mostly from the WHO's National Health Account database (www.who.int/nha/en) and from the OECD for its member countries, supplemented by World Bank poverty assessments and country and sector studies. Data are also drawn from World Bank public expenditure reviews, the International Monetary Fund's Government Finance Statistics database, and other studies. Data on physicians are from the WHO's *World Health Report 2006* and Global Atlas of the Health Workforce database, OECD, and TransMONEE, supplemented by country data. Data for the health worker density index are from the Joint Learning Initiative's *Human Resources for Health*. Data on hospital beds are from the WHO's *World Health Statistics 2006*, OECD's *Health Data 2006*, and TransMONEE, supplemented by country data.

2.15 Disease prevention coverage and quality

	Access to an improved water source		Access to improved sanitation facilities		Child immunization rate		Children with acute respiratory infection taken to health provider	Children with diarrhea who received oral rehydration and continued feeding	Children sleeping under treated bednets[a]	Children with fever receiving antimalarial drugs	Tuberculosis treatment success rate	DOTS detection rate
	% of population		% of population		% of children ages 12–23 months[b]		% of children under age 5 with ARI	% of children under age 5 with diarrhea	% of children under age 5	% of children under age 5 with fever	% of registered cases	% of estimated cases
	1990	2004	1990	2004	Measles 2005	DPT 2005	2000–05[c]	1998–2005[c]	2000–05[c]	2000–05[c]	2004	2005
Afghanistan	4	39	3	34	64	76	28	48	..	..	89	44
Albania	96	96	..	91	97	98	83	51	..	..	78	25
Algeria	94	85	88	92	83	88	52	..	..	..	91	106
Angola	36	53	29	31	45	47	58	32	2	63	68	85
Argentina	94	96	81	91	99	92	..	..	..	..	58	67
Armenia	..	92	..	83	94	90	28	48	..	..	70	60
Australia	100	100	100	100	94	92	..	..	..	..	85	42
Austria	100	100	100	100	75	86	..	..	..	..	69	56
Azerbaijan	68	77	..	54	98	93	36	40	1	1	60	55
Bangladesh	72	74	20	39	81	88	20	53	..	..	90	59
Belarus	100	100	..	84	99	99	..	..	..	..	74	46
Belgium	100	100	100	100	88	97	..	..	..	..	72	64
Benin	63	67	12	33	85	93	35	42	7	60	83	83
Bolivia	72	85	33	46	64	81	52	54	..	..	80	72
Bosnia and Herzegovina	97	97	..	95	90	93	80	23	..	..	98	71
Botswana	93	95	38	42	90	97	14	7	..	..	65	69
Brazil	83	90	71	75	99	96	..	..	..	..	81	53
Bulgaria	99	99	99	99	96	96	..	..	..	..	80	90
Burkina Faso	38	61	7	13	84	96	36	47	2	50	67	18
Burundi	69	79	44	36	75	74	40	16	1	31	78	30
Cambodia	..	41	..	17	79	82	37	59	..	..	91	66
Cameroon	50	66	48	51	68	80	40	43	1	53	71	106
Canada	100	100	100	100	94	94	..	..	..	..	62	64
Central African Republic	52	75	23	27	35	40	32	47	2	69	91	40
Chad	19	42	7	9	23	20	12	27	1	44	69	22
Chile	90	95	84	91	90	91	..	..	..	..	83	112
China	70	77	23	44	86	87	..	..	..	..	94	80
Hong Kong, China	..	..	..	..	81	85	..	..	..	..	80	53
Colombia	92	93	82	86	89	87	57	39	1	..	85	26
Congo, Dem. Rep.	43	46	16	30	70	73	36	17	1	45	85	72
Congo, Rep.	..	58	..	27	56	65	38	..	..	..	63	57
Costa Rica	..	97	..	92	89	91	..	..	..	..	94	118
Côte d'Ivoire	69	84	21	37	51	56	38	34	4	58	71	38
Croatia	100	100	100	100	96	96	..	..	..	..	..	..
Cuba	..	91	98	98	98	99	..	..	..	..	93	98
Czech Republic	100	100	99	98	97	97	..	..	..	..	73	65
Denmark	100	100	100	100	95	93	..	..	..	..	88	71
Dominican Republic	84	95	52	78	99	77	63	42	..	..	80	76
Ecuador	73	94	63	89	93	94	..	..	..	..	85	28
Egypt, Arab Rep.	94	98	54	70	98	98	73	29	..	..	70	63
El Salvador	67	84	51	62	99	89	62	..	..	..	90	67
Eritrea	43	60	7	9	84	83	44	54	4	4	85	13
Estonia	100	100	97	97	96	96	..	..	..	..	71	64
Ethiopia	23	22	3	13	59	69	19	38	2	3	79	33
Finland	100	100	100	100	97	97	..	..	..	..	..	..
France	100	100	..	..	87	98	..	..	..	..	..	..
Gabon	..	88	..	36	55	38	48	44	..	..	40	57
Gambia, The	..	82	..	53	84	88	75	38	15	55	86	69
Georgia	80	82	97	94	92	84	99	..	..	..	68	91
Germany	100	100	100	100	93	90	..	..	..	..	68	52
Ghana	55	75	15	18	83	84	44	40	4	63	72	37
Greece	..	..	..	..	88	88	..	..	..	..	..	..
Guatemala	79	95	58	86	77	81	64	22	..	..	85	55
Guinea	44	50	14	18	59	69	33	44	4	56	72	56
Guinea-Bissau	..	59	..	35	80	80	64	23	7	58	75	79
Haiti	47	54	24	30	54	43	26	41	..	12	80	57

Disease prevention coverage and quality 2.15

	Access to an improved water source		Access to improved sanitation facilities		Child immunization rate		Children with acute respiratory infection taken to health provider	Children with diarrhea who received oral rehydration and continued feeding	Children sleeping under treated bednets[a]	Children with fever receiving antimalarial drugs	Tuberculosis treatment success rate	DOTS detection rate
	% of population		% of population		% of children ages 12–23 months[b]		% of children under age 5 with ARI	% of children under age 5 with diarrhea	% of children under age 5	% of children under age 5 with fever	% of registered cases	% of estimated cases
	1990	2004	1990	2004	Measles 2005	DPT 2005	2000–05[c]	1998–2005[c]	2000–05[c]	2000–05[c]	2004	2005
Honduras	84	87	50	69	92	91	..	..	..	..	85	82
Hungary	99	99	..	95	99	99	..	..	..	..	54	43
India	70	86	14	33	58	59	..	22	..	12	86	61
Indonesia	72	77	46	55	72	70	61	56	26	1	90	66
Iran, Islamic Rep.	92	94	83	..	94	95	93	..	..	..	84	64
Iraq	83	81	81	79	90	81	76	54	0[d]	1	85	43
Ireland	..	..	..	..	84	90	..	..	..	..	..	..
Israel	100	100	..	..	95	95	..	..	..	..	80	42
Italy	..	..	..	..	87	96	..	..	..	..	95	72
Jamaica	92	93	75	80	84	88	39	21	..	..	46	61
Japan	100	100	100	100	99	99	..	..	..	..	57	57
Jordan	97	97	93	93	95	95	78	44	..	..	85	63
Kazakhstan	87	86	72	72	99	98	..	22	..	..	72	72
Kenya	45	61	40	43	69	76	49	33	5	27	80	43
Korea, Dem. Rep.	100	100	..	59	96	79	93	..	..	..	89	99
Korea, Rep.	..	92	..	..	99	96	..	..	..	..	80	18
Kuwait	..	..	..	..	99	99	..	..	..	..	63	66
Kyrgyz Republic	78	77	60	59	99	98	..	..	..	..	85	67
Lao PDR	..	51	..	30	41	49	36	37	18	9	86	68
Latvia	99	99	..	78	95	99	..	..	..	..	73	83
Lebanon	100	100	..	98	96	92	74	..	..	..	90	74
Lesotho	..	79	37	37	85	83	54	53	..	..	69	85
Liberia	55	61	39	27	94	87	70	..	..	..	70	50
Libya	71	..	97	97	97	98	..	..	..	..	64	178
Lithuania	..	..	..	..	97	94	..	..	..	..	72	100
Macedonia, FYR	..	..	..	..	96	97	..	..	..	..	84	66
Madagascar	40	46	14	32	59	61	48	47	..	34	71	67
Malawi	40	73	47	61	82	93	27	51	15	28	71	39
Malaysia	98	99	..	94	90	90	..	..	..	..	56	73
Mali	34	50	36	46	86	85	36	45	8	38	71	21
Mauritania	38	53	31	34	61	71	41	28	2	33	22	28
Mauritius	100	100	..	94	98	97	..	..	..	..	89	32
Mexico	82	97	58	79	96	98	..	..	..	..	82	110
Moldova	..	92	..	68	97	98	54	52	..	..	62	65
Mongolia	63	62	..	59	99	99	78	66	..	..	88	82
Morocco	75	81	56	73	97	98	38	46	..	..	87	101
Mozambique	36	43	20	32	77	72	54	47	..	15	77	49
Myanmar	57	78	24	77	72	73	66	48	..	..	84	95
Namibia	57	87	24	25	73	86	53	39	3	14	68	90
Nepal	70	90	11	35	74	75	26	43	..	..	87	67
Netherlands	100	100	100	100	96	98	..	..	..	..	83	47
New Zealand	97	..	..	..	82	89	..	..	..	..	66	51
Nicaragua	70	79	45	47	96	86	57	49	..	2	87	88
Niger	39	46	7	13	83	89	27	43	6	48	61	50
Nigeria	49	48	39	44	35	25	33	28	1	34	73	22
Norway	100	100	100	100	90	91	..	..	..	..	89	44
Oman	80	..	83	..	98	99	..	..	..	..	90	108
Pakistan	83	91	37	59	78	72	..	..	..	..	82	37
Panama	90	90	71	73	99	85	..	..	..	..	78	131
Papua New Guinea	39	39	44	44	60	61	..	..	..	..	65	21
Paraguay	62	86	58	80	90	75	..	..	..	..	83	33
Peru	74	83	52	63	80	84	68	57	..	..	90	86
Philippines	87	85	57	72	80	79	55	76	..	..	87	75
Poland	..	..	..	..	98	99	..	..	..	..	79	62
Portugal	..	..	..	..	93	93	..	..	..	..	84	85
Puerto Rico	..	..	..	..	..	..	..	..	..	..	71	74

2.15 Disease prevention coverage and quality

	Access to an improved water source		Access to improved sanitation facilities		Child immunization rate		Children with acute respiratory infection taken to health provider	Children with diarrhea who received oral rehydration and continued feeding	Children sleeping under treated bednets[a]	Children with fever receiving antimalarial drugs	Tuberculosis treatment success rate	DOTS detection rate
	% of population		% of population		% of children ages 12–23 months[b]		% of children under age 5 with ARI	% of children under age 5 with diarrhea	% of children under age 5	% of children under age 5 with fever	% of registered cases	% of estimated cases
	1990	2004	1990	2004	Measles 2005	DPT 2005	2000–05[c]	1998–2005[c]	2000–05[c]	2000–05[c]	2004	2005
Romania	..	57	..	..	97	97	..	..	31	..	82	82
Russian Federation	94	97	87	87	99	98	..	..	..	..	59	30
Rwanda	59	74	37	42	89	95	27	16	13	12	77	29
Saudi Arabia	90	..	..	..	96	96	..	..	..	..	82	38
Senegal	65	76	33	57	74	84	27	33	14	29	74	51
Serbia and Montenegro	93	93	87	87	96	98	97	..	..	..	*89*	*31*
Sierra Leone	..	57	..	39	67	64	50	39	2	61	82	37
Singapore	100	100	100	100	96	96	..	..	..	..	81	100
Slovak Republic	100	100	99	99	98	99	..	..	..	..	88	39
Slovenia	..	..	..	..	94	96	..	..	..	..	90	84
Somalia	..	29	..	26	35	35	..	..	9[e]	..	91	86
South Africa	83	88	69	65	82	94	..	37	..	..	70	103
Spain	100	100	100	100	97	96	..	..	..	..	..	..
Sri Lanka	68	79	69	91	99	99	..	..	..	..	85	86
Sudan	64	70	33	34	60	59	57	38	0[d]	50	77	35
Swaziland	..	62	..	48	60	71	60	24	0[d]	26	50	42
Sweden	100	100	100	100	94	99	..	..	..	..	64	56
Switzerland	100	100	100	100	82	93	..	..	..	..	..	..
Syrian Arab Republic	80	93	73	90	98	99	66	..	..	..	86	42
Tajikistan	..	59	..	51	84	81	51	29	2	69	84	22
Tanzania	46	62	47	47	91	90	57	53	16	58	81	45
Thailand	95	99	80	99	96	98	..	..	..	..	74	73
Togo	50	52	37	35	70	82	30	25	54	60	67	18
Trinidad and Tobago	92	91	100	100	93	95	74	31	..	..	..	..
Tunisia	81	93	75	85	96	98	43	..	..	..	90	82
Turkey	85	96	85	88	91	90	41	19	..	..	91	3
Turkmenistan	..	72	..	62	99	99	51	..	..	..	86	43
Uganda	44	60	42	43	86	84	67	28	0[d]	..	70	45
Ukraine	96	96	96	96	96	96	..	..	..	..	..	..
United Arab Emirates	100	100	97	98	92	94	..	..	..	..	70	19
United Kingdom	100	100	..	..	82	91	..	..	..	..	..	..
United States	100	100	100	100	93	96	..	..	..	..	61	85
Uruguay	100	100	100	100	95	96	..	..	..	..	86	83
Uzbekistan	94	82	51	67	99	99	57	33	..	..	78	39
Venezuela, RB	..	83	..	68	76	87	72	51	..	..	81	73
Vietnam	65	85	36	61	95	95	71	39	16	7	93	84
West Bank and Gaza	..	92	..	73	99	99	65	..	..	..	50	2
Yemen, Rep.	71	67	32	43	76	86	47	..	..	..	82	41
Zambia	50	58	44	55	84	80	69	48	7	52	83	52
Zimbabwe	78	81	50	53	85	90	..	80	..	..	54	41
World	**77 w**	**83 w**	**45 w**	**57 w**	**77 w**	**78 w**					**84 w**	**60 w**
Low income	64	75	21	38	65	66					83	52
Middle income	78	84	48	62	87	88					85	74
Lower middle income	76	82	42	57	86	86					88	74
Upper middle income	90	94	79	84	93	94					70	73
Low & middle income	73	80	37	52	75	76					84	61
East Asia & Pacific	72	79	30	51	83	84					90	76
Europe & Central Asia	93	92	86	85	96	95					73	42
Latin America & Carib.	83	91	67	77	92	91					82	64
Middle East & N. Africa	88	89	70	76	92	93					84	71
South Asia	71	84	17	37	64	65					86	58
Sub-Saharan Africa	49	56	31	37	64	65					74	49
High income	100	100	100	100	93	95					66	40
Europe EMU	100	100	..	..	90	95					..	35

a. For malaria prevention only. b. Refers to children who were immunized before age 12 months or, in some cases, ages 12–23 months. c. Data are for the most recent year available. d. Less than 0.5. e. Data are for 2006.

Disease prevention coverage and quality 2.15

About the data

People's health is influenced by the environment in which they live. Lack of clean water and basic sanitation is the main reason diseases transmitted by feces are so common in developing countries. The data on access to an improved water source measure the percentage of the population using improved drinking water sources or delivery points. Access to drinking water from an improved source and access to improved sanitation do not ensure safety or adequacy, as these characteristics are not tested at the time of the surveys. But improved drinking water technologies and improved sanitation facilities are more likely than those characterized as unimproved to provide safe drinking water and to prevent contact with human excreta. The data are derived by the Joint Monitoring Programme (JMP) of the WHO and United Nations Children's Fund (UNICEF) based on national censuses and nationally representative household surveys. The coverage rates for water and sanitation are based on information from service users on the facilities their households actually use rather than on information from service providers, who may include nonfunctioning systems. While the estimates are based on use, the JMP reports use as access, because access is the term used in the Millennium Development Goal target for drinking water and sanitation.

Governments in developing countries usually finance immunization against measles and diphtheria, pertussis (whooping cough), and tetanus (DPT) as part of the basic public health package. In many developing countries, lack of precise information on the size of the cohort of one-year-old children makes immunization coverage difficult to estimate from program statistics. The data shown here are based on an assessment of national immunization coverage rates by the WHO and UNICEF. The assessment considered both administrative data from service providers and household survey data on children's immunization histories. Based on the data available, consideration of potential biases, and contributions of local experts, the most likely true level of immunization coverage was determined for each year.

Acute respiratory infection continues to be a leading cause of death among young children, killing about 2 million children under age five in developing countries in 2000. An estimated 60 percent of these deaths can be prevented by the selective use of antibiotics by appropriate health care providers. Data are drawn mostly from household health surveys in which mothers report on number of episodes and treatment for acute respiratory infection.

Since 1990 diarrhea-related deaths among children have declined tremendously. Most diarrhea-related deaths are due to dehydration, and many of these deaths can be prevented with the use of oral rehydration salts at home. However, recommendations for the use of oral rehydration therapy have changed over time based on scientific progress, so it is difficult to accurately compare use rates among countries. Until the current recommended method for home management of diarrhea is adopted and applied in all countries, the data should be used with caution. Also, the prevalence of diarrhea may vary by season. Since country surveys are administered at different times, data comparability is further affected.

Malaria is endemic to the poorest countries in the world, mainly in tropical and subtropical regions of Africa, Asia, and the Americas. An estimated 300–500 million clinical malaria cases and more than 1 million malaria deaths occur each year—the vast majority in Sub-Saharan Africa and among children under age five. Insecticide-treated bednets, if properly used and maintained, are one of the most important malaria-preventive strategies to limit human-mosquito contact. Studies have emphasized that mortality rates could be reduced by about 25–30 percent if every child under age five in malaria-risk areas such as Africa slept under a treated bednet every night.

Prompt and effective treatment of malaria is a critical element of malaria control. It is vital that sufferers, especially children under age five, start treatment within 24 hours of the onset of symptoms, to prevent progression—often rapid—to severe malaria and death.

Data on the success rate of tuberculosis treatment are provided for countries that have implemented DOTS, the internationally recommended tuberculosis control strategy. Countries that have not adopted DOTS or have only recently done so are omitted because of lack of data or poor comparability or reliability of reported results. The treatment success rate for tuberculosis provides a useful indicator of the quality of health services. A low rate or no success suggests that infectious patients may not be receiving adequate treatment. An essential complement to the tuberculosis treatment success rate is the DOTS detection rate, which indicates whether there is adequate coverage by the recommended case detection and treatment strategy. A country with a high treatment success rate may still face big challenges if its DOTS detection rate remains low.

Definitions

• **Access to an improved water source** refers to the percentage of the population with reasonable access to an adequate amount of water from an improved source, such as piped water into a dwelling, plot, or yard; public tap or standpipe; tubewell or borehole; protected dug well or spring; and rainwater collection. Unimproved sources include unprotected dug well or spring, cart with small tank or drum, bottled water, and tanker trucks. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within 1 kilometer of the dwelling. • **Access to improved sanitation facilities** refers to the percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection. To be effective, facilities must be correctly constructed and properly maintained. • **Child immunization rate** is the percentage of children ages 12–23 months who received vaccinations before 12 months or at any time before the survey for four diseases—measles and diphtheria, pertussis (whooping cough), and tetanus (DPT). A child is considered adequately immunized against measles after receiving one dose of vaccine and against DPT after receiving three doses. • **Children with acute respiratory infection taken to a health provider** refer to the percentage of children under age five with acute respiratory infection in the two weeks prior to the survey who were taken to an appropriate health provider, including hospital, health center, dispensary, village health worker, clinic, and private physician • **Children with diarrhea who received oral rehydration and continued feeding** refer to the percentage of children under age five with diarrhea in the two weeks prior to the survey who received either oral rehydration therapy or increased fluids, with continued feeding. • **Children sleeping under treated bednets** refer to the percentage of children under age five who slept under an insecticide-treated bednet to prevent malaria. • **Children with fever receiving antimalarial drugs** refer to the percentage of children under age five who were ill with fever in the last two weeks and received any appropriate (locally defined) antimalarial drugs. • **Tuberculosis treatment success rate** is the percentage of new, registered smear-positive (infectious) cases that were cured or in which a full course of treatment was completed. • **DOTS detection** rate is the percentage of estimated new infectious tuberculosis cases detected under the directly observed treatment, short course case detection and treatment strategy.

Data sources

Data on water and sanitation are from the WHO and UNICEF's *Meeting the MDG Drinking Water and Sanitation Target* (www.who.int/water_sanitation_health/monitoring/jmp2006). Data on immunization are from WHO and UNICEF estimates of national immunization coverage (www.who.int/immunization_monitoring/en). Data on children with acute respiratory infection, children with diarrhea, children sleeping under treated bednets, and children receiving antimalarial drugs are from UNICEF's *State of the World's Children 2007*, Childinfo, and Demographic and Health Surveys by Macro International. Data on tuberculosis are from the WHO's *Global Tuberculosis Control Report 2007.*

2.16 Reproductive health

	Total fertility rate		Adolescent fertility rate	Unmet need for contraception	Contraceptive prevalence rate	Tetanus vaccinations	Pregnant women receiving prenatal care	Births attended by skilled health staff		Maternal mortality ratio	
	births per woman		births per 1,000 women ages 15–19	% of married women ages 15–49	% of married women ages 15–49	% of pregnant women	%	% of total		per 100,000 live births	
	1990	2005	2005	2000–05[a]	2000–05[a]	2005	2000–05[a]	1990–92[a]	2000–05[a]	National estimates 1990–2005[a]	Modeled estimates 2000
Afghanistan	..	..	..	..	10	55	16	..	14	1,600	1,900
Albania	2.9	1.8	16	..	75	..	91	..	98	16	55
Algeria	4.6	2.4	8	..	57	..	81	77	96	120	140
Angola	7.1	6.6	140	..	6	75	66	..	45	..	1,700
Argentina	3.0	2.3	58	..	..	..	98	96	95	39	82
Armenia	2.5	1.4	30	12	61	..	93	..	98	16	55
Australia	1.9	1.8	14	..	..	..	..	100	99	..	8
Austria	1.5	1.4	12	..	..	..	..	..	..	..	4
Azerbaijan	2.7	2.3	31	..	55	..	70	..	88	19	94
Bangladesh	4.3	3.0	118	11	58	89	49	..	13	320	380
Belarus	1.9	1.2	26	..	..	..	..	..	100	17	35
Belgium	1.6	1.7	8	..	..	..	..	..	..	..	10
Benin	6.7	5.6	127	27	19	69	81	..	75	500	850
Bolivia	4.9	3.7	81	23	58	..	79	..	67	30	420
Bosnia and Herzegovina	1.7	1.2	22	..	48	..	99	97	100	8	31
Botswana	4.4	3.0	74	..	48	..	97	..	94	330	100
Brazil	2.8	2.3	89	..	..	..	97	72	97	72	260
Bulgaria	1.8	1.3	43	..	..	..	..	..	99	6	32
Burkina Faso	6.9	5.9	156	29	14	75	73	..	38	480	1,000
Burundi	6.8	6.8	50	..	16	45	78	..	25	..	1,000
Cambodia	5.5	3.9	46	30	24	53	38	..	44	440	450
Cameroon	5.9	5.0	110	20	26	65	83	58	62	670	730
Canada	1.8	1.5	13	..	..	..	..	..	98	..	6
Central African Republic	5.6	4.7	122	..	28	56	62	..	44	1,100	1,100
Chad	6.7	6.3	191	21	3	39	39	..	14	1,100	1,100
Chile	2.6	2.0	60	..	..	..	..	..	100	17	31
China	2.1	1.8	5	..	87	..	90	..	97	51	56
Hong Kong, China	1.3	1.0	5	..	..	..	..	..	100	..	..
Colombia	3.1	2.4	75	6	78	86	94	82	96	84	130
Congo, Dem. Rep.	6.7	6.7	225	..	31	66	68	..	61	1,300	990
Congo, Rep.	6.3	5.6	144	..	44	65	88	..	86	..	510
Costa Rica	3.2	2.0	74	..	..	..	92	98	99	36	43
Côte d'Ivoire	6.5	4.7	117	..	..	73	88	..	68	600	690
Croatia	1.6	1.4	14	..	..	..	..	100	100	8	8
Cuba	1.7	1.5	50	..	73	..	100	..	100	37	33
Czech Republic	1.9	1.3	11	..	..	..	..	..	100	4	9
Denmark	1.7	1.8	7	..	..	..	..	..	..	10	5
Dominican Republic	3.3	2.7	91	11	70	..	99	93	99	180	150
Ecuador	3.6	2.7	83	..	73	..	84	..	75	80	130
Egypt, Arab Rep.	4.3	3.1	41	11	59	80	70	41	74	84	84
El Salvador	3.7	2.8	83	..	67	..	86	..	92	170	150
Eritrea	6.2	5.2	92	27	8	62	70	..	28	1,000	630
Estonia	2.0	1.5	23	..	..	..	..	..	100	8	63
Ethiopia	6.9	5.3	87	35	15	45	28	..	6	673	850
Finland	1.8	1.8	10	..	..	..	..	..	100	6	6
France	1.8	1.9	7	..	..	..	..	..	..	10	17
Gabon	5.3	3.7	102	28	33	60	94	..	86	520	420
Gambia, The	5.8	4.4	116	..	18	..	91	44	55	730	540
Georgia	2.1	1.4	32	..	47	..	95	..	92	52	32
Germany	1.5	1.4	10	..	..	..	..	..	..	8	8
Ghana	5.7	4.1	61	34	25	84	92	..	47	..	540
Greece	1.4	1.3	9	..	..	..	..	..	..	1	9
Guatemala	5.6	4.3	110	..	43	..	84	..	41	150	240
Guinea	6.5	5.6	186	..	7	76	82	31	56	530	740
Guinea-Bissau	7.1	7.1	192	..	8	54	62	..	35	910	1,100
Haiti	5.2	3.8	61	40	28	52	79	..	24	520	680

2.16 Reproductive health

	Total fertility rate		Adolescent fertility rate	Unmet need for contraception	Contraceptive prevalence rate	Tetanus vaccinations	Pregnant women receiving prenatal care	Births attended by skilled health staff		Maternal mortality ratio	
	births per woman		births per 1,000 women ages 15–19	% of married women ages 15–49	% of married women ages 15–49	% of pregnant women	%	% of total		per 100,000 live births	
	1990	2005	2005	2000–05[a]	2000–05[a]	2005	2000–05[a]	1990–92[a]	2000–05[a]	National estimates 1990–2005[a]	Modeled estimates 2000
Honduras	5.1	3.5	97	..	62	..	83	45	56	110	110
Hungary	1.8	1.3	21	..	..	..	..	..	100	7	16
India	3.8	2.8	70	..	47	80	..	..	43	540	540
Indonesia	3.1	2.3	53	9	57	70	92	32	72	310	230
Iran, Islamic Rep.	4.8	2.1	19	..	74	..	..	..	90	37	76
Iraq	5.9	..	..	..	44	70	77	..	72	290	250
Ireland	2.1	1.9	13	..	..	..	..	..	100	6	5
Israel	2.8	2.8	14	..	..	..	..	..	..	5	17
Italy	1.3	1.3	7	..	..	..	..	..	..	7	5
Jamaica	2.9	2.4	78	..	69	..	98	..	97	110	87
Japan	1.5	1.3	4	..	56	..	..	100	..	8	10
Jordan	5.4	3.3	26	11	56	..	99	87	100	41	41
Kazakhstan	2.7	1.7	29	..	..	..	..	..	..	42	210
Kenya	5.8	5.0	95	25	..	72	88	..	42	410	1,000
Korea, Dem. Rep.	2.4	2.0	2	..	..	..	..	..	97	110	67
Korea, Rep.	1.6	1.1	4	..	..	..	..	98	100	20	20
Kuwait	3.5	2.4	23	..	..	..	..	..	100	5	5
Kyrgyz Republic	3.7	2.4	32	..	..	..	..	..	99	49	110
Lao PDR	6.0	4.5	88	..	32	30	27	..	19	410	650
Latvia	2.0	1.3	17	..	..	..	..	..	100	14	42
Lebanon	3.1	2.3	26	..	63	..	96	..	93	..	150
Lesotho	4.8	3.4	36	..	30	..	90	..	55	760	550
Liberia	6.9	6.8	222	..	10	72	85	..	51	..	760
Libya	4.7	2.8	7	..	..	..	..	..	..	77	97
Lithuania	2.0	1.3	21	..	..	..	..	..	100	3	13
Macedonia, FYR	2.1	1.6	23	..	..	..	81	..	99	21	23
Madagascar	6.2	5.0	121	24	27	45	80	57	51	470	550
Malawi	7.0	5.8	155	30	31	70	92	55	56	980	1,800
Malaysia	3.8	2.7	18	..	..	..	74	..	97	30	41
Mali	7.4	6.7	197	29	8	75	57	..	41	580	1,200
Mauritania	6.1	5.6	97	32	8	34	64	40	57	750	1,000
Mauritius	2.3	2.0	32	..	76	..	..	96	99	22	24
Mexico	3.3	2.1	66	..	73	..	..	..	83	63	83
Moldova	2.4	1.3	30	..	68	..	98	..	100	22	36
Mongolia	4.0	2.3	53	..	69	..	94	..	97	93	110
Morocco	4.0	2.4	42	10	63	..	68	31	63	230	220
Mozambique	6.2	5.3	101	18	26	70	85	..	48	410	1,000
Myanmar	4.0	2.2	18	..	34	85	76	..	57	230	360
Namibia	5.9	3.7	51	22	44	67	91	68	76	270	300
Nepal	5.1	3.5	110	28	38	42	28	7	15	540	740
Netherlands	1.6	1.7	5	..	..	..	..	..	..	7	16
New Zealand	2.2	2.0	23	..	..	..	..	..	..	15	7
Nicaragua	4.8	3.1	118	15	69	..	86	..	67	83	230
Niger	8.2	7.7	255	..	14	54	41	15	16	590	1,600
Nigeria	6.7	5.5	137	17	13	51	58	31	35	..	800
Norway	1.9	1.8	9	..	..	..	..	..	..	6	16
Oman	6.5	3.4	45	..	32	..	100	..	95	23	87
Pakistan	5.8	4.1	69	..	28	57	36	19	31	530	500
Panama	3.0	2.6	85	..	..	..	..	..	93	40	160
Papua New Guinea	5.1	3.8	57	..	..	10	..	..	41	..	300
Paraguay	4.7	3.7	63	..	73	..	94	67	77	180	170
Peru	3.9	2.7	53	10	69	..	92	..	73	190	410
Philippines	4.3	3.2	35	17	49	70	88	..	60	170	200
Poland	2.0	1.2	14	..	..	..	..	..	100	4	13
Portugal	1.4	1.4	18	..	..	..	..	..	100	8	5
Puerto Rico	2.2	1.8	53	..	..	..	..	..	100	..	25

2.16 Reproductive health

	Total fertility rate		Adolescent fertility rate	Unmet need for contraception	Contraceptive prevalence rate	Tetanus vaccinations	Pregnant women receiving prenatal care	Births attended by skilled health staff		Maternal mortality ratio	
	births per woman		births per 1,000 women ages 15–19	% of married women ages 15–49	% of married women ages 15–49	% of pregnant women	%	% of total		per 100,000 live births	
	1990	2005	2005	2000–05[a]	2000–05[a]	2005	2000–05[a]	1990–92[a]	2000–05[a]	National estimates 1990–2005[a]	Modeled estimates 2000
Romania	1.8	1.3	34	..	70	..	94	..	99	17	49
Russian Federation	1.9	1.3	29	..	..	..	..	..	99	..	67
Rwanda	7.4	5.8	46	36	17	76	94	26	39	750	1,400
Saudi Arabia	5.9	3.8	32	..	..	..	..	..	93	..	23
Senegal	6.4	4.9	80	..	11	85	79	..	58	430	690
Serbia and Montenegro	2.1	1.6	23	..	58	..	..	..	92	7	11
Sierra Leone	6.5	6.5	172	..	4	76	68	..	42	1,800	2,000
Singapore	1.9	1.2	5	..	..	..	..	..	100	6	30
Slovak Republic	2.1	1.3	20	..	..	..	..	..	99	4	3
Slovenia	1.5	1.2	6	..	..	..	..	100	100	17	17
Somalia	6.8	6.2	68	..	15[b]	25	..	..	33[b]	1,000	1,100
South Africa	3.3	2.8	65	..	60	61	92	..	92	150	230
Spain	1.3	1.3	9	..	..	..	..	..	..	6	4
Sri Lanka	2.5	1.9	18	..	70	76	100	..	96	43	92
Sudan	5.6	4.1	50	..	7	41	60	69	87	..	590
Swaziland	5.3	3.9	35	..	48	..	90	..	74	230	370
Sweden	2.1	1.8	7	..	..	..	..	..	..	5	2
Switzerland	1.6	1.4	4	..	..	..	..	..	..	5	7
Syrian Arab Republic	5.2	3.2	32	..	48	..	71	..	70	65	160
Tajikistan	5.1	3.5	29	..	34	..	71	..	71	37	100
Tanzania	6.1	5.2	106	22	26	90	78	44	43	578	1,500
Thailand	2.2	1.9	47	..	72	..	92	..	99	24	44
Togo	6.4	5.0	95	..	26	61	85	..	61	480	570
Trinidad and Tobago	2.4	1.6	35	..	38	..	92	..	96	45	160
Tunisia	3.5	2.0	7	..	66	..	92	..	90	69	120
Turkey	3.0	2.2	40	..	71	47	81	..	83	..	70
Turkmenistan	4.2	2.6	16	10	62	..	98	..	97	14	31
Uganda	7.2	7.1	207	35	23	56	92	..	39	510	880
Ukraine	1.8	1.2	28	..	89	..	..	..	100	13	35
United Arab Emirates	4.3	2.4	19	..	..	..	..	..	100	3	54
United Kingdom	1.8	1.8	25	..	84	..	..	..	..	7	13
United States	2.1	2.1	50	..	..	..	..	..	99	8	17
Uruguay	2.5	2.0	69	..	..	..	..	..	99	26	27
Uzbekistan	4.1	2.2	35	..	68	..	97	..	96	30	24
Venezuela, RB	3.4	2.7	91	..	..	..	94	..	95	58	96
Vietnam	3.6	1.8	19	5	77	85	86	..	90	170	130
West Bank and Gaza	6.3	4.6	..	..	51	..	96	..	97	..	..
Yemen, Rep.	7.9	5.9	91	..	23	24	41	16	27	370	570
Zambia	6.5	5.4	126	27	34	98	93	51	43	730	750
Zimbabwe	5.2	3.3	89	..	..	70	..	..	..	1,100	1,100
World	**3.1 w**	**2.6 w**	**57 w**		**60 w**	**.. w**	**.. w**	**.. w**	**63 w**		**410 w**
Low income	4.7	3.6	92		40	69	..	33	41		684
Middle income	2.6	2.1	32		76	..	89	..	87		150
Lower middle income	2.7	2.1	29		77	..	89	..	86		163
Upper middle income	2.6	1.9	46		..	..	..	..	92		91
Low & middle income	3.4	2.7	60		60	..	..	..	61		450
East Asia & Pacific	2.5	2.0	16		79	..	89	..	87		117
Europe & Central Asia	2.3	1.6	29		..	..	..	..	94		58
Latin America & Carib.	3.2	2.4	77		..	..	95	..	87		194
Middle East & N. Africa	4.8	3.0	32		59	..	..	..	74		183
South Asia	4.1	3.1	76		46	77	..	30	37		564
Sub-Saharan Africa	6.2	5.3	132		23	61	70	..	45		921
High income	1.8	1.7	24		..	..	..	..	..		14
Europe EMU	1.5	1.5	9		..	..	..	..	..		10

a. Data are for the most recent year available. b. Data are for 2006.

2.16 Reproductive health

About the data

Reproductive health is a state of physical and mental well-being in relation to the reproductive system and its functions and processes. Means of achieving reproductive health include education and services during pregnancy and childbirth, provision of safe and effective contraception, and prevention and treatment of sexually transmitted diseases. Complications of pregnancy and childbirth are the leading cause of death and disability among women of reproductive age in developing countries. Reproductive health services will need to expand rapidly over the next two decades, when the number of women and men of reproductive age is projected to increase by about 500 million.

Total and adolescent fertility rates are based on data on registered live births from vital registration systems or, in the absence of such systems, from censuses or sample surveys. As long as the surveys are fairly recent, the estimated rates are generally considered reliable measures of fertility in the recent past. Where no empirical information on age-specific fertility rates is available, a model is used to estimate the share of births to adolescents. For countries without vital registration systems, fertility rates are generally based on extrapolations from trends observed in censuses or surveys from earlier years.

An increasing number of couples in the developing world want to limit or postpone childbearing but are not using effective contraceptive methods. These couples have an unmet need for contraception, shown in the table as the percentage of married women of reproductive age who do not want to become pregnant but are not using contraception (Bulatao 1998). Information on this indicator is collected through surveys and excludes women not exposed to the risk of unintended pregnancy because of menopause, infertility, or postpartum anovulation. Common reasons for not using contraception are lack of knowledge about contraceptive methods and concerns about possible health side-effects.

Contraceptive prevalence reflects all methods—ineffective traditional methods as well as highly effective modern methods. Contraceptive prevalence rates are obtained mainly from household surveys, including Demographic and Health Surveys, Multiple Indicator Cluster Surveys, and contraceptive prevalence surveys (see *Primary data documentation* for the most recent survey year). Unmarried women are often excluded from such surveys, which may bias the estimates.

Neonatal tetanus is an important cause of infant mortality in some developing countries. It can be prevented through immunization of the mother during pregnancy. Recommended doses for full protection are generally two tetanus shots during the first pregnancy and one booster shot during each subsequent pregnancy, with five doses considered adequate for lifetime protection. Information on tetanus shots during pregnancy is collected through surveys in which pregnant respondents are asked to show antenatal cards on which tetanus shots have been recorded. Because not all women have antenatal cards, respondents are also asked about their receipt of these injections. Poor recall may result in a downward bias in estimates of the share of births protected. But in settings where receiving injections is common, respondents may erroneously report having received tetanus shots.

The share of births attended by skilled health staff is an indicator of a health system's ability to provide adequate care for pregnant women. Good antenatal and postnatal care improve maternal health and reduce maternal and infant mortality. But data may not reflect such improvements because health information systems are often weak, maternal deaths are underreported, and rates of maternal mortality are difficult to measure.

Maternal mortality ratios are generally of unknown reliability, as are many other cause-specific mortality indicators. Household surveys such as the Demographic and Health Surveys attempt to measure maternal mortality by asking respondents about survivorship of sisters. The main disadvantage of this method is that the estimates of maternal mortality that it produces pertain to 12 years or so before the survey, making them unsuitable for monitoring recent changes or observing the impact of interventions. In addition, measurement of maternal mortality is subject to many types of errors. Even in high-income countries with vital registration systems, misclassification of maternal deaths has been found to lead to serious underestimation.

The maternal mortality ratios shown in the table as national estimates are based on national surveys, vital registration records, and surveillance data or are derived from community and hospital records. The ratios shown as modeled estimates are based on an exercise by the World Health Organization (WHO), United Nations Children's Fund (UNICEF), and the United Nations Population Fund (UNFPA). For countries with national data, reported maternal mortality was adjusted by a factor of under- or over-enumeration and misclassification. For countries with no national data, maternal mortality was estimated with a regression model using information on fertility, birth attendants, and GDP. Neither set of ratios can be assumed to provide an accurate estimate of maternal mortality for any of the countries in the table.

Definitions

• **Total fertility rate** is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates. • **Adolescent fertility rate** is the number of births per 1,000 women ages 15–19. • **Unmet need for contraception** is the percentage of fertile, married women of reproductive age who do not want to become pregnant and are not using contraception. • **Contraceptive prevalence rate** is the percentage of women married or in-union ages 15–49 who are practicing, or whose sexual partners are practicing, any form of contraception. • **Tetanus vaccinations** refer to the percentage of pregnant women who receive two tetanus toxoid injections during their first pregnancy and one booster shot during each subsequent pregnancy, with five doses considered adequate for a lifetime. • **Pregnant women receiving prenatal care** are the percentage of women attended at least once during pregnancy by skilled health personnel for reasons related to pregnancy. • **Births attended by skilled health staff** are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; to conduct deliveries on their own; and to care for newborns. • **Maternal mortality ratio** is the number of women who die from pregnancy-related causes during pregnancy and childbirth, per 100,000 live births.

Data sources

Data on fertility rates are compiled and estimated by the World Bank's Development Data Group. Important inputs come from the following sources: the United Nations Population Division's *World Population Prospects: The 2004 Revision;* census reports and other statistical publications from national statistical offices; and household surveys such as Demographic and Health Surveys. Data on women with unmet need for contraception and contraceptive prevalence rates are from household surveys, including Demographic and Health Surveys by Macro International and Multiple Indicator Cluster Surveys by UNICEF. Data on tetanus vaccinations, pregnant women receiving prenatal care, births attended by skilled health staff, and national estimates of maternal mortality ratios are from UNICEF's *State of the World's Children 2007* and Childinfo, and Demographic and Health Surveys by Macro International. Modeled estimates for maternal mortality ratios are from Carla AbouZahr and Tessa Wardlaw's "Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF, and UNFPA" (2003).

2.17 Nutrition

	Prevalence of undernourishment		Prevalence of child malnutrition		Prevalence of overweight children	Low-birthweight babies	Exclusive breastfeeding	Consumption of iodized salt	Vitamin A supplementation
	% of population		% of children under age 5		% of children under age 5	% of births	% of children under 6 months	% of households	% of children 6–59 months
	1990–92	2002–04[a]	Underweight 2000–05[b]	Stunting 2000–05[b]	2000–05[b]	2000–05[b]	2000–05[b]	2000–05[b]	2004
Afghanistan	..	..	39.3	53.7	..	..	..	28	96
Albania	5[c]	6	14.0	35.1	22.4	5	6	62	..
Algeria	5	4	10.4	19.1	10.1	7	13	69	..
Angola	58	35	30.5	45.2	..	12	11	35	77
Argentina	<2.5	3	3.8[d]	4.2[d]	..	8	..	..	..
Armenia	52[c]	24	2.6	12.9	10.4	7	33	97	..
Australia	<2.5	<2.5	..	..	..	7	..	..	..
Austria	<2.5	<2.5	..	..	..	7	..	..	..
Azerbaijan	34[c]	7	6.8	13.3	2.6	12	7	26	14
Bangladesh	35	30	47.5	43.0	0.8	36	36	70	83
Belarus	<2.5[c]	4	..	..	..	5	..	55	..
Belgium	<2.5	<2.5	..	..	..	..	..	..	..
Benin	20	12	30.0	30.7	1.8	16	38	72	94
Bolivia	28	23	7.6	26.7	5.6	7	54	90	42
Bosnia and Herzegovina	9[c]	9	4.1	9.7	13.2	4	..	62	..
Botswana	23	32	12.5	23.1	6.9	10	34	66	62[e]
Brazil	12	7	..	..	..	8	..	88	..
Bulgaria	8[c]	8	..	..	..	10	..	98	..
Burkina Faso	21	15	37.7	38.7	2.9	19	19	45	95
Burundi	48	66	45.1	56.8	0.7	16	62	96	94
Cambodia	43	33	36.0	44.6	2.0	11	12	14	72
Cameroon	33	26	18.1	31.7	5.2	13	24	88	81
Canada	<2.5	<2.5	..	..	..	6	..	..	..
Central African Republic	50	44	24.3	38.9	..	14	17	86	79
Chad	58	35	36.7	40.9	1.5	22	2	56	84
Chile	8	4	0.7	1.4	8.1	6	63	..	..
China	16	12	7.8	14.2	2.6	4	51	93	..
Hong Kong, China	..	..	..	..	..	5	..	..	..
Colombia	17	13	7.0	12.0	3.7	6	47	..	..
Congo, Dem. Rep.	31	74	31.0	38.1	3.9	12	24	72	81
Congo, Rep.	54	33	..	..	..	..	19	..	94
Costa Rica	6	5	..	..	..	7	..	..	60
Côte d'Ivoire	18	13	17.2	..	..	17	5	84	..
Croatia	16[c]	7	..	..	..	6	..	..	..
Cuba	7	<2.5	3.9	4.6	..	5	41	88	..
Czech Republic	<2.5[c]	<2.5	..	..	..	7	..	..	..
Denmark	<2.5	<2.5	..	..	..	5	..	..	..
Dominican Republic	27	29	5.3	8.9	6.5	11	10	18	..
Ecuador	8	6	11.6	..	..	..	..	..	..
Egypt, Arab Rep.	4	4	8.6	15.6	6.7	12	38	78	..
El Salvador	12	11	10.3	18.9	3.6	7	24	62	..
Eritrea	70[c]	75	39.6	37.6	0.7	14	52	68	50
Estonia	9[c]	<2.5	..	..	..	4	..	..	..
Ethiopia	69[c]	46	38.4	46.5	1.2	14	49	28	52
Finland	<2.5	<2.5	..	..	..	4	..	..	..
France	<2.5	<2.5	..	..	..	..	..	..	..
Gabon	10	5	11.9	20.7	3.7	14	6	36	..
Gambia, The	22	29	17.2	19.2	1.5	17	26	8	27
Georgia	44[c]	9	..	..	..	7	..	68	..
Germany	<2.5	<2.5	..	..	..	..	..	..	..
Ghana	37	11	22.1	29.9	2.9	16	53	28	95
Greece	<2.5	<2.5	..	..	..	..	..	..	..
Guatemala	16	22	22.7	49.3	5.4	12	51	67	18[e]
Guinea	39	24	32.7	..	..	16	27	68	95
Guinea-Bissau	24	39	25.0	30.5	3.3	22	37	2	64
Haiti	65	46	17.2	22.7	2.0	21	24	11	..

2.17 Nutrition

	Prevalence of undernourishment		Prevalence of child malnutrition		Prevalence of overweight children	Low-birthweight babies	Exclusive breastfeeding	Consumption of iodized salt	Vitamin A supplementation
	% of population		% of children under age 5		% of children under age 5	% of births	% of children under 6 months	% of households	% of children 6–59 months
	1990–92	2002–04[a]	Underweight 2000–05[b]	Stunting 2000–05[b]	2000–05[b]	2000–05[b]	2000–05[b]	2000–05[b]	2004
Honduras	23	23	16.6	29.2	2.2	14	35	..	40
Hungary	<2.5[c]	<2.5	..	..	..	9	..	..	..
India	25	20	..	..	..	..	37[f]	57	51[e]
Indonesia	9	6	28.2	..	..	9	40	73	73[e]
Iran, Islamic Rep.	4	4	..	..	..	..	44	..	..
Iraq	..	..	15.9	22.1	3.0	15	12	40	..
Ireland	<2.5	<2.5	..	..	..	..	..	..	..
Israel	<2.5	<2.5	..	..	..	8	..	..	..
Italy	<2.5	<2.5	..	..	..	..	..	..	..
Jamaica	14	9	3.6	..	..	10	..	..	..
Japan	<2.5	<2.5	..	..	..	8	..	..	..
Jordan	4	6	4.4	8.5	3.5	12	27	88	..
Kazakhstan	<2.5[c]	6	..	..	..	..	..	83	..
Kenya	39	31	19.9	30.3	3.7	10	13	91	63
Korea, Dem. Rep.	18	33	23.9	38.6	0.6	7	65	40	95
Korea, Rep.	<2.5	<2.5	..	..	..	4	..	..	..
Kuwait	24	5	..	..	..	..	..	..	..
Kyrgyz Republic	21[c]	4	6.7	..	..	..	..	42	95
Lao PDR	29	19	40.4	42.4	1.2	14	23	75	48
Latvia	3[c]	3	..	..	..	5	..	..	..
Lebanon	<2.5	3	3.9	11.0	..	6	27[f]	92	..
Lesotho	17	13	18.0	46.1	12.1	13	36	91	71
Liberia	34	50	26.5	39.5	2.3	..	35	..	95
Libya	<2.5	<2.5	..	..	..	..	..	..	..
Lithuania	4[c]	<2.5	..	..	..	4	..	..	..
Macedonia, FYR	15[c]	5	..	..	..	6	99	94	..
Madagascar	35	38	41.9	47.7	..	17	67	75	89
Malawi	50	35	21.9	49.0	4.3	16	53	49	57
Malaysia	3	3	10.6	..	..	9	..	..	..
Mali	29	29	33.2	38.2	1.5	23	25	74	97
Mauritania	15	10	31.8	34.5	..	..	20	2	95
Mauritius	6	5	..	..	..	14	21[f]	..	..
Mexico	5	5	..	..	..	8	..	91	..
Moldova	5[c]	11	4.3	8.4	..	5	46	59	..
Mongolia	34	27	12.7	24.6	..	7	51	75	93
Morocco	6	6	10.2	18.1	9.2	15	31	59	..
Mozambique	66	44	23.7	41.0	3.0	15	30	54	26
Myanmar	10	5	31.8	32.2	1.6	15	15[f]	60	96
Namibia	34	24	24.0	23.6	2.2	14	19	63	..
Nepal	20	17	45.0[g]	43.0[g]	0.2	21	68[g]	63	97
Netherlands	<2.5	<2.5	..	..	..	..	..	..	..
New Zealand	<2.5	<2.5	..	..	..	6	..	..	..
Nicaragua	30	27	9.6	20.2	4.7	12	31	97	98
Niger	41	32	40.1	39.7	0.8	13	1	15	..
Nigeria	13	9	28.7	38.3	3.6	14	17	97	85
Norway	<2.5	<2.5	..	..	..	5	..	..	..
Oman	..	..	..	..	..	8	..	..	95
Pakistan	24	24	37.8	36.8	2.1	..	..	17	95
Panama	21	23	..	..	..	10	..	..	..
Papua New Guinea	..	..	..	..	..	..	..	..	32
Paraguay	18	15	4.6	..	..	9	22	88	..
Peru	42	12	7.1	25.4	7.6	11	64	91	..
Philippines	26	18	27.6	..	..	20	34	56	85
Poland	<2.5[c]	<2.5	..	..	..	6	..	..	..
Portugal	<2.5	<2.5	..	..	..	8	..	..	..
Puerto Rico	..	..	..	..	..	..	..	..	..

2.17 Nutrition

	Prevalence of undernourishment		Prevalence of child malnutrition		Prevalence of overweight children	Low-birthweight babies	Exclusive breastfeeding	Consumption of iodized salt	Vitamin A supplementation
	% of population		% of children under age 5		% of children under age 5	% of births	% of children under 6 months	% of households	% of children 6–59 months
	1990–92	2002–04[a]	Underweight 2000–05[b]	Stunting 2000–05[b]	2000–05[b]	2000–05[b]	2000–05[b]	2000–05[b]	2004
Romania	<2.5[c]	<2.5	3.2	10.1	5.5	8	16	53	..
Russian Federation	4[c]	3	5.5	10.6	..	6	..	35	..
Rwanda	43	33	22.5	45.3	4.0	9	88	90	95
Saudi Arabia	4	4	..	..	..	..	..	..	..
Senegal	23	20	22.7	25.4	2.2	18	34	41	95
Serbia and Montenegro	5[c]	9	1.9	5.1	..	4	11[f]	73	..
Sierra Leone	46	51	27.2	33.8	..	23	4	23	95
Singapore	..	..	3.4	2.2	2.2	8	..	..	..
Slovak Republic	4[c]	7	..	..	..	7	..	..	..
Slovenia	3[c]	3	..	..	..	6	..	..	..
Somalia	..	..	33.0[g]	23.3	..	..	..	..	6
South Africa	<2.5	<2.5	..	..	..	..	7	..	37
Spain	<2.5	<2.5	..	..	..	..	..	..	..
Sri Lanka	28	22	29.4	13.5	..	22	53	94	57[e]
Sudan	31	26	40.7	43.3	3.4	..	16	1	70
Swaziland	14	22	10.3	30.2	..	9	24	59	86
Sweden	<2.5	<2.5	..	..	..	..	..	..	..
Switzerland	<2.5	<2.5	..	..	..	..	..	..	..
Syrian Arab Republic	5	4	6.9	18.8	..	6	81[f]	79	..
Tajikistan	22[c]	56	..	36.2	..	15	50	28	98
Tanzania	37	44	21.8	37.7	..	10	41	43	94
Thailand	30	22	..	..	..	9	..	63	..
Togo	33	24	..	..	..	18	18	67	95
Trinidad and Tobago	13	10	5.9	3.6	..	23	2	1	..
Tunisia	<2.5	<2.5	4.0	12.3	..	7	47	97	..
Turkey	<2.5	3	3.9	..	..	..	21	64	..
Turkmenistan	12[c]	7	12.0	22.3	..	6	13	100	..
Uganda	24	19	22.9	39.1	2.6	12	63	95	68
Ukraine	<2.5[c]	<2.5	1.0	2.7	20.1	5	22	32	..
United Arab Emirates	4	3	..	..	..	..	..	..	..
United Kingdom	<2.5	<2.5	..	..	..	8	..	..	..
United States	<2.5	<2.5	1.6	1.1	5.6	8	..	..	..
Uruguay	7	<2.5	..	..	..	8	..	..	..
Uzbekistan	8[c]	25	7.9	21.1	..	7	19	57	86
Venezuela, RB	11	18	4.4	12.8	3.2	9	..	..	..
Vietnam	31	16	28.4	36.5	2.7	9	15	83	95[e]
West Bank and Gaza	..	16	4.9	9.9	..	9	29[f]	64	..
Yemen, Rep.	34	38	45.6	53.1	..	..	12	30	20
Zambia	48	46	23.0	46.8	3.0	12	40	77	50
Zimbabwe	45	47	..	..	..	..	..	..	20
World	**17 w**	**14 w**	**.. w**	**.. w**		**11 w**	**37 w**	**69 w**	**.. w**
Low income	27	24	..	..		..	33	56	68
Middle income	14	10	11.5	15.6		8	42	80	..
Lower middle income	16	11	12.5	16.4		8	44	83	..
Upper middle income	..	4	..	..		8	..	..	..
Low & middle income	20	16	21.7	..		11	37	69	..
East Asia & Pacific	17	12	14.9	17.7		7	44	85	..
Europe & Central Asia	6[c]	6	4.9	..		7	..	49	..
Latin America & Carib.	13	10	..	..		9	..	84	..
Middle East & N. Africa	6	7	14.6	22.2		11	34	66	..
South Asia	26	21	..	..		..	37	54	62
Sub-Saharan Africa	29	30	29.6	39.2		14	29	63	73
High income	3	3	..	..		..	..	..	..
Europe EMU	3	3	..	..		..	..	..	..

a. Preliminary data. b. Data are for the most recent year available. c. Data are for 1993–95. d. Data are for 2005–06. e. Country's vitamin A supplementation programs do not target children all the way up to 59 months of age. f. Refers to exclusive breastfeeding of children under four months. g. Data are for 2006.

About the data

Data on undernourishment are produced by the Food and Agriculture Organization (FAO) of the United Nations based on the calories available from local food production, trade, and stocks; the number of calories needed by different age and gender groups; the proportion of the population represented by each age group; and a coefficient of distribution to take account of inequality in access to food (FAO, *State of Food Insecurity in the World 2000*). From a policy and program standpoint, however, this measure has its limits. First, food insecurity exists even where food availability is not a problem because of inadequate access of poor households to food. Second, food insecurity is an individual or household phenomenon, and the average food available to each person, even corrected for possible effects of low income, is not a good predictor of food insecurity among the population. And third, nutrition security is determined not only by food security but also by the quality of care of mothers and children and the quality of the household's health environment (Smith and Haddad 2000).

Estimates of child malnutrition, based on weight for age (underweight) and height for age (stunting), are from national survey data. The proportion of children who are underweight is the most common indicator of malnutrition. Being underweight, even mildly, increases the risk of death and inhibits cognitive development in children. Moreover, it perpetuates the problem from one generation to the next, as malnourished women are more likely to have low-birthweight babies. Height for age reflects linear growth achieved pre- and postnatally, and a deficit indicates long-term, cumulative effects of inadequacies of health, diet, or care. It is often argued that stunting is a proxy for multifaceted deprivation and is a better indicator of long-term changes in malnutrition.

Estimates of children who are overweight are also from national survey data. Overweight in children has become a growing concern in developing countries. Researchers show an association between obesity in childhood and a high prevalence of diabetes, respiratory disease, high blood pressure, and psychosocial and orthopedic disorders (de Onis and Blössner 2000). The survey data were analyzed in a standardized way by the World Health Organization (WHO) to allow comparisons across countries.

New international child growth standards for infants and young children, called the Child Growth Standards, were released in 2006 by the WHO. The new standards confirm that children born anywhere in the world, raised in healthy environments, and following recommended feeding practice have the potential to develop to within the same range of height and weight. Naturally, there are individual differences among children, but the differences in children's growth to age five are influenced more by nutrition, feeding practices, environment, and healthcare than by genetics or ethnicity. The new standards are the result of a community-based, multicountry project involving more than 8,000 children from Brazil, Ghana, India, Norway, Oman, and the United States. The children were selected based on an optimal environment for growth, including breastfeeding, good healthcare, and mothers who did not smoke. Previously, the U.S. National Center for Health Statistics–WHO growth reference has been used to chart children's growth. This reference was based on data from a limited sample of a random mix of breastfed and artificially fed children from the United States only, and the growth reference describes only how children grow in a particular region and time. Thus it does not provide a sound basis for evaluation against international standards and norms.

Adoption of the new standards will have important implications for monitoring children's growth. A study based on the new standards shows that the underweight rates increased during the first six months and decreased thereafter and that stunting and overweight rates increased for all age groups (birth to five years). Differences are particularly important during infancy, likely due to the inclusion of only breast-fed infants in the new standards (de Onis and others 2006).

The new standards are expected to be widely used as a tool for monitoring the nutritional status of communities and alerting practitioners and policymakers to unhealthy trends in the population. They are also expected to play a key role in measuring and monitoring health targets for the Millennium Development Goals. Currently, national surveys are being reanalyzed with the new standards to update the global database, but the updated data are not yet available. The data on malnutrition and overweight presented in the table are still based on the old standard.

Low birthweight, which is associated with maternal malnutrition, raises the risk of infant mortality and stunts growth in infancy and childhood. There is also emerging evidence that low-birthweight babies are more prone to noncommunicable diseases such as diabetes and cardiovascular diseases. Estimates of low-birthweight infants are drawn mostly from hospital records and household surveys. Many births in developing countries take place at home, and these births are seldom recorded. A hospital birth may indicate higher income and therefore better nutrition, or it could indicate a higher-risk birth, possibly skewing the data on birthweights downward. The data should therefore be treated with caution.

It is estimated that improved breastfeeding practice can save some 1.3 million children a year. Breast milk alone contains all the nutrients, antibodies, hormones, and antioxidants an infant needs to thrive. It protects babies from diarrhea and acute respiratory infections, stimulates their immune systems and response to vaccination, and according to some studies confers cognitive benefits as well. The data on breastfeeding are derived from national surveys.

Iodine deficiency is the single most important cause of preventable mental retardation, and it contributes significantly to the risk of stillbirth and miscarriage. Iodized salt is the best source of iodine, and a global campaign to iodize edible salt is significantly reducing the risks (UNICEF, *State of the World's Children 1999*).

Vitamin A is essential for the functioning of the immune system. A child deficient in vitamin A faces a 23 percent greater risk of dying from a range of childhood ailments such as measles, malaria, and diarrhea. Improving the vitamin A status of pregnant women helps reduce anemia, improves their resistance to infection, and may reduce their risk of dying during pregnancy and childbirth. Giving vitamin A to new mothers who are breastfeeding helps to protect their children during the first months of life. Food fortification with vitamin A is being introduced in many developing countries.

Definitions

• **Prevalence of undernourishment** is the percentage of the population that is undernourished—whose dietary energy consumption is continuously below a minimum dietary energy requirement for maintaining a healthy life and carrying out light physical activity. • **Prevalence of child malnutrition** is the percentage of children under age five whose weight for age (underweight) or height for age (stunting) is more than two standard deviations below the median for the international reference population ages 0–59 months. For children up to two years old height is measured by recumbent length. For older children height is measured by stature while standing. The new Child Growth Standards were released by the WHO in 2006, but the data using these standards are not yet available • **Prevalence of overweight children** is the percentage of children under age five whose weight for height is more than two standard deviations above the median for the international reference population of the corresponding age, established by the U.S. National Center for Health Statistics and the WHO. The new Child Growth Standards were released by WHO in 2006, but the data using these standards are not yet available. • **Low-birthweight babies** are the percentage of newborns weighing less than 2,500 grams, with the measurement taken within the first hours of life, before significant postnatal weight loss has occurred. • **Exclusive breastfeeding** refers to the percentage of children less than six months old who are fed breast milk alone (no other liquids) in the past 24 hours. • **Consumption of iodized salt** refers to the percentage of households that use edible salt fortified with iodine. • **Vitamin A supplementation** refers to the percentage of children ages 6–59 months old who received at least one high-dose vitamin A capsule in the previous six months.

Data sources

Data on undernourishment are from www.fao.org/faostat/foodsecurity/index_en.htm. Data on malnutrition and overweight are from WHO's Global Database on Child Growth and Malnutrition. Data on low-birthweight babies, breastfeeding, iodized salt consumption, and vitamin A supplementation are from the WHO's *World Health Report 2006* and the United Nations Children's Fund's *State of the World's Children 2007.*

2.18 Health risk factors and public health challenges

	Prevalence of smoking		Incidence of tuberculosis	Prevalence of diabetes	Mortality caused by road traffic injury	Prevalence of HIV				Cause of death		
	% of adults		per 100,000 people	% of population ages 20–79	per 100,000 people	Total % of population ages 15–49		Female % of population with HIV		% of total deaths		
	Male	Female								Communicable diseases and maternal, perinatal, and nutrition conditions	Non-communicable diseases	Injuries
	2000–05[a]	2000–05[a]	2005	2007	1998–2003[a]	2003	2005	2003	2005	2002	2002	2002
Afghanistan	..	..	168	9.7	..	<0.1	<0.1	..	..	65	29	6
Albania	60	18	20	4.5	11.1	..	..	..	..	8	83	9
Algeria	32	0[b]	55	8.4	..	0.1	0.1	20.6	21.6	33	54	13
Angola	..	..	269	3.3	..	3.7	3.7	59.3	60.7	75	17	8
Argentina	32	25	41	5.6	..	0.6	0.6	26.7	27.7	13	80	7
Armenia	62	2	71	7.7	5.6	0.1	0.1	..	..	5	90	5
Australia	19	16	6	5.0	8.2	0.1	0.1	..	..	4	89	6
Austria	..	..	11	7.9	11.5	0.3	0.3	19.2	19.2	3	92	6
Azerbaijan	..	1	76	7.3	6.9	<0.1	<0.1	..	..	17	79	4
Bangladesh	55	27	227	5.3	..	<0.1	<0.1	..	12.7	46	44	10
Belarus	53	7	62	7.6	14.3	0.3	0.3	24.4	25.5	3	85	12
Belgium	30	25	13	5.2	13.1	0.2	0.3	45.5	38.6	7	88	6
Benin	..	..	88	4.4	..	2.0	1.8	59.3	58.4	69	23	7
Bolivia	..	..	211	5.8	..	0.1	0.1	27.0	27.9	38	54	8
Bosnia and Herzegovina	49	30	52	7.0	..	..	0.1	..	..	3	92	5
Botswana	..	..	654	5.2	..	24.0	24.1	56.0	53.8	87	10	2
Brazil	22	14	60	6.2	..	0.5	0.5	34.5	36.1	19	70	11
Bulgaria	44	23	39	7.6	10.2	..	0.1	..	..	3	94	4
Burkina Faso	..	..	223	3.7	..	1.8[c]	2.0	59.2	57.1	78	16	6
Burundi	..	..	334	1.7	..	3.3	3.3	60.8	60.8	71	17	12
Cambodia	..	..	506	5.0	..	2.0	1.6	46.4	45.4	61	34	5
Cameroon	..	..	174	3.7	..	5.5	5.5[d]	62.2	61.7	68	26	7
Canada	22	17	5	7.4	8.7	0.3	0.3	12.2	16.3	5	89	6
Central African Republic	..	..	314	4.4	..	10.8	10.7	59.1	56.5	73	21	6
Chad	..	..	272	3.6	..	3.4	3.5	54.7	56.3	74	19	6
Chile	48	37	15	5.6	10.7	0.3	0.3	26.4	27.1	12	79	9
China	67	4	100	4.1	19.0	0.1[e]	0.1[e]	24.5[e]	27.7[e]	12	77	11
Hong Kong, China	22	4	75	8.2	..	..	..	..	..	..	..	..
Colombia	..	..	45	5.0	24.2	0.5	0.6	26.4	28.1	16	60	24
Congo, Dem. Rep.	..	..	356	3.0	..	3.2	3.2	59.0	58.4	73	17	11
Congo, Rep.	..	..	367	5.0	..	5.4	5.3	58.6	61.0	67	23	9
Costa Rica	29	10	14	9.3	20.1	0.3	0.3	27.0	27.4	12	77	11
Côte d'Ivoire	..	..	382	4.6	..	7.0	7.1	57.8	58.8	67	23	9
Croatia	34	27	41	7.1	11.4	..	0.1	..	..	3	91	5
Cuba	..	..	9	9.3	13.9	0.1	0.1	54.8	55.3	11	80	9
Czech Republic	31	20	10	7.6	14.2	<0.1	<0.1	..	..	3	91	6
Denmark	31	25	7	5.5	8.0	0.2	0.2	24.0	23.6	4	90	6
Dominican Republic	16	11	91	8.7	41.1	1.0[f]	1.1	49.2	50.0	35	58	8
Ecuador	..	..	131	5.7	16.9	0.3	0.3	52.4	54.5	24	63	13
Egypt, Arab Rep.	40	18	25	11.0	7.5	<0.1	<0.1	..	..	18	78	4
El Salvador	42	15	51	9.0	41.7	0.9	0.9	27.1	28.3	29	57	14
Eritrea	..	..	282	2.3	..	2.4	2.4	59.2	58.5	70	22	7
Estonia	45	18	43	7.6	14.8	1.1	1.3	22.1	24.0	3	84	12
Ethiopia	6	0[b]	344	2.3	..	..	..	..	..	71	23	6
Finland	26	19	6	5.9	7.3	0.1	0.1	..	..	6	86	8
France	30	21	13	5.9	10.2	0.4	0.4	33.3	34.6	6	85	8
Gabon	..	..	308	4.9	..	7.7	7.9	59.6	58.9	53	39	7
Gambia, The	..	..	242	4.1	..	2.2	2.4	58.8	57.9	59	32	8
Georgia	53	6	83	7.4	6.2	0.1	0.2	..	..	4	93	2
Germany	37	28	7	7.9	8.0	0.1	0.1	29.5	30.6	4	92	4
Ghana	7	1	205	4.2	..	2.2[c]	2.3	60.7	60.0	59	33	8
Greece	47	29	17	5.9	19.3	0.2	0.2	20.7	21.5	4	92	4
Guatemala	21	2	78	8.6	..	0.9	0.9	26.4	27.1	50	40	10
Guinea	..	..	236	4.1	..	1.6	1.5	68.9	67.9	68	24	9
Guinea-Bissau	..	..	206	3.8	..	3.8	3.8	59.3	58.6	75	19	6
Haiti	15	6	305	9.0	..	3.8	3.8	52.9	53.3	69	29	2

Health risk factors and public health challenges 2.18

	Prevalence of smoking		Incidence of tuberculosis	Prevalence of diabetes	Mortality caused by road traffic injury	Prevalence of HIV				Cause of death		
	% of adults		per 100,000 people	% of population ages 20–79	per 100,000 people	Total % of population ages 15–49		Female % of population with HIV		% of total deaths		
	Male	Female								Communicable diseases and maternal, perinatal, and nutrition conditions	Non-communicable diseases	Injuries
	2000–05[a]	2000–05[a]	2005	2007	1998–2003[a]	2003	2005	2003	2005	2002	2002	2002
Honduras	..	..	78	9.1	..	1.5	1.5	25.0	26.2	32	59	9
Hungary	41	28	22	7.6	13.1	0.1	0.1	..	..	2	91	7
India	47	17	168	6.7	..	0.9	0.9	28.8	28.6	41	49	10
Indonesia	58	3	239	2.3	..	0.1	0.1	13.6	17.1	29	61	10
Iran, Islamic Rep.	22	2	23	7.8	..	0.1	0.2	13.0	16.7	12	70	18
Iraq	..	..	56	10.0	8.4	..	..	..	..	43	43	13
Ireland	28	26	12	5.1	10.1	0.2	0.2	32.0	36.0	10	85	5
Israel	32	18	8	6.9	5.9	..	..	..	..	6	88	6
Italy	31	17	7	5.8	10.5	0.5	0.5	33.6	33.3	4	92	4
Jamaica	..	..	7	10.3	..	1.5	1.5	27.1	27.6	14	84	2
Japan	47	15	28	4.9	7.0	<0.1	<0.1	56.5	58.2	12	81	8
Jordan	51	8	5	9.8	..	..	..	..	..	18	65	16
Kazakhstan	65	9	144	5.6	..	0.1	0.1	56.0	56.7	8	79	13
Kenya	21	1	641	3.3	..	6.7[c]	6.1	64.2	61.7	72	22	6
Korea, Dem. Rep.	..	..	178	5.2	..	..	..	..	..	32	61	7
Korea, Rep.	..	..	96	7.8	15.1	<0.1	<0.1	59.1	56.9	6	83	12
Kuwait	..	..	24	14.4	23.7	..	..	..	..	13	72	15
Kyrgyz Republic	51	5	121	5.1	12.9	<0.1	<0.1	..	..	17	74	9
Lao PDR	59	13	155	3.1	..	0.1	0.1	..	..	55	36	9
Latvia	51	19	63	7.6	22.7	0.6	0.8	20.3	22.0	4	86	11
Lebanon	42	31	11	7.7	..	0.1	0.1	..	..	10	77	13
Lesotho	..	..	696	3.8	..	23.7	23.2	56.0	60.0	81	16	3
Liberia	..	..	301	4.6	..	..	..	..	..	76	15	10
Libya	..	..	18	4.4	..	..	..	..	..	17	73	10
Lithuania	44	13	63	7.6	19.3	0.1	0.2	..	..	2	85	13
Macedonia, FYR	..	..	30	7.1	5.1	<0.1	<0.1	..	..	3	89	8
Madagascar	..	..	234	3.0	..	0.5	0.5	28.2	27.7	65	27	8
Malawi	21	5	409	2.1	..	14.2	14.1	59.3	58.8	79	17	4
Malaysia	43	2	102	10.7	..	0.4	0.5	25.0	25.4	20	71	9
Mali	..	..	278	4.1	..	1.8[g]	1.7	57.3	60.0	78	16	6
Mauritania	..	..	298	4.6	..	0.7	0.7	59.2	57.3	65	27	8
Mauritius	32	1	62	11.1	14.7	0.2	0.6	..	..	7	86	6
Mexico	13	5	23	10.6	11.8	0.3	0.3	20.0	23.3	16	72	11
Moldova	34	2	138	7.6	14.1	0.9	1.1	56.5	57.1	5	86	9
Mongolia	68	26	191	1.9	..	<0.1	<0.1	..	..	23	66	11
Morocco	29	0[b]	89	8.1	..	0.1	0.1	18.2	21.1	23	69	8
Mozambique	..	..	447	3.7	..	16.0	16.1	57.5	60.0	83	14	2
Myanmar	36	12	171	3.2	..	1.4	1.3	31.6	31.4	45	47	9
Namibia	23	10	697	4.2	..	19.5	19.6	60.0	61.9	71	24	5
Nepal	49	24	180	4.2	..	0.5	0.5	20.3	21.6	49	42	9
Netherlands	36	28	7	5.2	6.4	0.2	0.2	33.8	34.7	8	89	4
New Zealand	24	22	9	6.4	11.5	0.1	0.1	..	..	3	91	6
Nicaragua	..	5	58	10.1	20.1	0.2	0.2	22.4	23.6	30	58	12
Niger	..	..	164	3.7	..	1.1	1.1	59.7	59.2	80	14	6
Nigeria	..	1	283	4.5	..	3.7	3.9	58.3	61.5	71	22	7
Norway	27	25	5	3.6	6.1	0.1	0.1	..	..	8	87	5
Oman	..	..	11	13.1	..	..	..	..	..	13	75	12
Pakistan	..	..	181	9.6	..	0.1	0.1	13.3	16.7	53	39	8
Panama	..	..	45	9.7	16.4	0.9	0.9	26.0	25.3	21	69	10
Papua New Guinea	..	..	250	2.9	..	1.6	1.8	59.2	59.6	52	38	9
Paraguay	23	7	68	4.8	..	0.4	0.4	27.3	26.9	28	62	10
Peru	..	..	172	6.0	17.6	0.5	0.6	26.8	28.6	32	58	9
Philippines	41	8	291	7.6	..	<0.1	<0.1	20.2	28.3	35	56	9
Poland	40	25	26	7.6	14.8	0.1	0.1	30.0	30.0	3	90	7
Portugal	..	..	33	5.7	14.8	0.4	0.4	3.9	4.1	9	86	4
Puerto Rico	17	10	5	10.7	..	..	..	..	..	..	..	..

2.18 Health risk factors and public health challenges

	Prevalence of smoking		Incidence of tuberculosis	Prevalence of diabetes	Mortality caused by road traffic injury	Prevalence of HIV				Cause of death		
	% of adults		per 100,000 people	% of population ages 20–79	per 100,000 people	Total % of population ages 15–49		Female % of population with HIV		% of total deaths		
	Male	Female								Communicable diseases and maternal, perinatal, and nutrition conditions	Non-communicable diseases	Injuries
	2000–05[a]	2000–05[a]	2005	2007	1998–2003[a]	2003	2005	2003	2005	2002	2002	2002
Romania	32	10	134	7.6	16.8	..	0.1	..	..	5	90	5
Russian Federation	60	16	119	7.6	19.4	0.9	1.1	21.1	22.3	4	81	15
Rwanda	..	..	361	1.5	..	3.8	3.1	52.6	56.9	76	18	6
Saudi Arabia	19	8	41	16.7	..	..	..	..	..	15	69	16
Senegal	..	..	255	4.6	..	0.9	0.9	58.5	58.9	64	26	10
Serbia and Montenegro	48	34	*33*	7.1	..	0.2	0.2	22.2	20.0	3	93	4
Sierra Leone	..	..	475	4.3	..	1.6	1.6	60.0	60.5	78	14	8
Singapore	24	4	29	10.1	5.2	0.3	0.3	25.5	27.3	12	82	5
Slovak Republic	..	..	17	7.6	11.3	<0.1	<0.1	..	..	4	90	6
Slovenia	28	20	15	7.6	12.1	<0.1	<0.1	..	..	4	87	8
Somalia	..	..	224	2.8	..	0.9	0.9[h]	60.5	57.5	66	23	10
South Africa	23	8	600	4.4	..	15.6[f]	18.8	56.9	58.5	65	28	7
Spain	39	25	27	5.7	12.8	<0.1	<0.1	22.9	22.9	5	90	5
Sri Lanka	23	2	60	8.4	..	0.1	0.1	..	..	13	76	10
Sudan	..	..	228	4.0	..	1.6	1.6	56.7	56.3	45	41	14
Swaziland	11	3	1,262	4.0	..	32.4	33.4	63.2	57.1	84	13	3
Sweden	17	18	6	5.2	5.9	0.2	0.2	31.3	31.3	5	90	5
Switzerland	27	23	7	7.9	7.5	0.4	0.4	36.0	36.9	6	89	5
Syrian Arab Republic	..	..	37	10.6	..	..	..	..	..	17	73	9
Tajikistan	..	..	198	4.9	5.6	<0.1	<0.1	..	..	27	67	6
Tanzania	..	..	342	2.9	..	6.6	7.0[d]	52.3	54.6	77	17	6
Thailand	49	3	142	6.9	..	1.4	1.4	38.6	39.3	31	58	11
Togo	..	..	373	4.1	..	3.2	3.2	58.9	61.0	66	26	8
Trinidad and Tobago	..	..	9	11.5	..	2.6	2.6	56.0	57.7	23	71	6
Tunisia	50	2	24	5.2	..	0.1	0.1	..	22.1	9	80	11
Turkey	49	18	29	7.8	..	..	..	..	..	14	79	6
Turkmenistan	..	..	70	5.2	10.3	..	0.1	..	..	19	73	8
Uganda	25	3	369	2.0	..	6.8	6.4[i]	57.6	57.8	75	18	7
Ukraine	53	11	99	7.6	10.8	1.3	1.4	47.4	48.8	4	87	9
United Arab Emirates	17	1	16	19.5	..	..	..	..	..	12	67	21
United Kingdom	27	25	14	2.9	6.1	..	..	..	..	12	85	3
United States	24	19	5	7.8	14.7	0.6	0.6	25.5	25.0	6	88	6
Uruguay	35	24	28	5.6	10.0	0.4	0.5	55.6	55.8	7	86	7
Uzbekistan	24	1	113	5.1	9.8	0.1	0.2	..	13.2	14	80	7
Venezuela, RB	..	..	42	5.4	23.1	0.6	0.7	27.7	28.2	15	66	18
Vietnam	35	2	175	2.9	..	0.4	0.5[j]	30.5	33.6	24	66	9
West Bank and Gaza	..	..	21	8.4	..	..	..	..	..	..	..	..
Yemen, Rep.	..	..	82	2.9	..	..	..	..	..	48	43	10
Zambia	16	1	600	3.8	..	15.6[k]	17.0	56.3	57.0	86	12	2
Zimbabwe	20	2	601	4.0	..	22.1	20.1	58.1	59.3	83	14	3
World	**.. w**	**.. w**	**136 w**		**.. w**	**0.9 w**	**1.0 w**	**30.3 w**	**31.3 w**	**32 w**	**59 w**	**9 w**
Low income	..	15	220		..	1.7	1.7	35.6	34.2	54	37	9
Middle income	..	..	111		..	0.6	0.6	26.1	28.7	18	72	11
Lower middle income	..	..	113		..	0.3	0.3	25.9	28.7	18	71	11
Upper middle income	..	..	104		..	2.2	2.2	27.1	28.6	15	74	11
Low & middle income	..	..	158		..	1.1	1.1	29.8	31.0	36	54	10
East Asia & Pacific	67	4	136		19.0	0.2	0.2	24.3	27.4	19	71	10
Europe & Central Asia	..	..	84		..	0.6	0.7	..	..	6	84	11
Latin America & Carib.	..	..	61		..	0.5	0.6	30.3	32.0	22	67	11
Middle East & N. Africa	..	..	43		..	0.1	0.1	..	..	24	65	11
South Asia	47	18	174		..	0.7	0.7	26.9	25.6	43	47	10
Sub-Saharan Africa	..	..	348		..	6.4	5.8	57.6	58.4	72	21	7
High income	..	..	17		10.9	0.4	0.4	33.1	33.2	7	87	6
Europe EMU	..	..	13		10.0	0.4	0.3	29.3	29.7	5	90	5

a. Data are for the most recent year available. b. Less than 0.5. c. Survey data, 2003. d. Survey data, 2004. e. Includes Hong Kong, China. f. Survey data, 2002. g. Survey data, 2001. h. Survey data, 2006. i. Survey data, 2004–05. j. Survey data, 2005. k. Survey data, 2001/02.

Health risk factors and public health challenges 2.18

About the data

The limited availability of data on health status is a major constraint in assessing the health situation in developing countries. Surveillance data are lacking for many major public health concerns. Estimates of prevalence and incidence are available for some diseases but are often unreliable and incomplete. National health authorities differ widely in their capacity and willingness to collect or report information. To compensate for the paucity of data and ensure reasonable reliability and international comparability, the World Health Organization (WHO) prepares estimates in accordance with epidemiological models and statistical standards.

Smoking is the most common form of tobacco use in many countries, and the prevalence of smoking is therefore a good measure of the extent of the tobacco epidemic (Corrao and others 2000). While the prevalence of smoking has been declining in some high-income countries, it has been increasing in many developing countries. Tobacco use causes heart and other vascular diseases and cancers of the lung and other organs. Given the long delay between starting to smoke and the onset of disease, the health impact of smoking in developing countries will increase rapidly in the next few decades. Because the data present a one-time estimate, with no information on the intensity or duration of smoking, and because the definition of adult varies across countries, the data should be interpreted with caution.

Tuberculosis is one of the main causes of death from a single infectious agent among adults in developing countries. In high-income countries tuberculosis has reemerged largely as a result of cases among immigrants. The estimates of tuberculosis incidence in the table are based on a new approach in which reported cases are adjusted using the ratio of case notifications to the estimated share of cases detected by panels of 80 epidemiologists convened by the WHO.

Diabetes, an important cause of ill health and a risk factor for other diseases in developed countries, is spreading rapidly in developing countries. While diabetes is most common among the elderly, prevalence rates are rising among younger and productive populations in developing countries. Economic development has led to the greater adoption of Western lifestyles and diet in developing countries, resulting in a substantial increase in diabetes. Without effective prevention and control programs, diabetes will likely continue to increase. Data are estimated based on sample surveys.

Data for mortality caused by road traffic injury are collected by the WHO based on vital registries. There is considerable difference in completeness of the vital registry data. In some countries the vital registry system covers only part of the country. In some, not all deaths are registered. In addition, mortality from different causes is difficult to measure. For countries with incomplete vital registry systems, the WHO has used demographic techniques to estimate deaths.

Adult HIV prevalence rates reflect the rate of HIV infection in each country's population. Low national prevalence rates can be very misleading, however. They often disguise serious epidemics that are initially concentrated in certain localities or among specific population groups and threaten to spill over into the wider population. In many parts of the developing world most new infections occur in young adults, with young women especially vulnerable.

Estimates from recent Demographic and Health Surveys that have collected data on HIV/AIDS differ from those of the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the WHO, which are based on surveillance systems that focus on pregnant women who attend sentinel antenatal clinics. There are reasons to be cautious about comparing the two sets of estimates. Demographic and Health Surveys are household surveys that use a representative sample from the whole population, whereas surveillance data from antenatal clinics are limited to pregnant women. Representative household surveys also frequently provide better coverage of rural populations. However, the fact that some respondents refuse to participate or are absent from the household adds considerable uncertainty to survey-based HIV estimates, because the possible association of absence or refusal with higher HIV prevalence is unknown. UNAIDS and WHO estimates are generally based on surveillance systems that focus on pregnant women who attend sentinel antenatal clinics. UNAIDS and the WHO use a methodology to estimate HIV prevalence for the adult population (ages 15–49) that assumes that prevalence among pregnant women is a good approximation of prevalence among men and women. However, this assumption might not apply to all countries or over time. There are also other potential biases associated with the use of antenatal clinic data, such as differences among women who attend antenatal clinics and those who do not.

The data on cause of death are compiled by WHO, based mainly on data from national vital registry systems, as well as sample registration systems, population laboratories and epidemiological analyses of specific conditions. Data are classified based on the International Statistical Classification of Diseases and Related Health Problems, 10th revision. Cause of death data have been carefully analyzed to take into account incomplete coverage of vital registration and the likely differences in cause of death patterns that would be expected in the uncovered and often poorer subpopulations. Special attention has also been paid to problems of misattribution or miscoding of causes of death in cardiovascular diseases, cancer, injuries, and general ill-defined categories. For further information, consult the original source.

Definitions

• **Prevalence of smoking** is the percentage of men and women who smoke cigarettes. The age range varies, but in most countries is 18 and older or 15 and older. • **Incidence of tuberculosis** is the estimated number of new tuberculosis cases (pulmonary, smear positive, extrapulmonary). • **Prevalence of diabetes** refers to the percentage of people ages 20–79 who have type 1 or type 2 diabetes. • **Mortality caused by road traffic injury** refers to the number of deaths per 100,000 people caused by road traffic injury. • **Prevalence of HIV** is the percentage of people who are infected with HIV. • **Cause of death** refers to the share of all deaths by underlying causes. • **Communicable diseases and maternal, perinatal, and nutrition conditions** include infectious and parasitic diseases, respiratory infections, and nutritional deficiencies such as underweight and stunting. • **Noncommunicable diseases** include cancer, diabetes mellitus, cardiovascular diseases, digestive diseases, skin diseases, musculoskeletal diseases, and congenital anomalies. • **Injuries** include unintentional and intentional injuries.

Data sources

Data on smoking are from J. McCay, M. Erkson, and O. Shafey's *Tobacco Atlas,* 2nd edition (2006). Data on tuberculosis are from the WHO's *Global Tuberculosis Control Report 2007.* Data on diabetes are from the International Diabetes Federation's *Diabetes Atlas,* 3rd edition. Data on mortality caused by road traffic injury are from the WHO and the World Bank's *World Report on Road Traffic Injury Prevention* (2004) and the Organisation for Economic Co-operation and Development. Data on HIV are from UNAIDS and the WHO's *2006 Report on the Global AIDS Epidemic.* Data on cause of death are from the Disease Control Priorities Project's (2006) *Global Burden of Disease and Risk Factors* (www.dcp2.org/pubs/GBD).

2.19 Health gaps by income and gender

	Survey year	Prevalence of child malnutrition		Child immunization rate				Infant mortality rate		Under-five mortality rate	
		Underweight % of children under age 5		% of children ages 12–23 months[a]				per 1,000 live births		per 1,000	
				Measles		DPT					
		Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile
Armenia	2000	3	1	68	74[b]	89	84[b]	52	27	61	30
Bangladesh	2004	41	24	60	91	71	91	90	65	121	71
Benin	2001	22	9	57	83	63	89	112	50	198	93
Bolivia	2003	10	1	62	74	64	85	87	32	119	37
Brazil	1996	10	3	78	90	66	82	83	29	99	33
Burkina Faso	2003	26	16	48	71	45	73	97	78	206	144
Cambodia	2000	35	28	44	82	39	75	110	50	155	64
Cameroon	2004	22	5	57	86	55	86	101	52	189	88
Central African Republic	1994–95	25	15	31	80	27	76	132	54	193	98
Chad	2004	27	19	8	38	5	42	109	101	176	187
Colombia	2005	11	3	70	91	73	91	32	14	39	16
Comoros	1996	22	14	51	86	58	92	87	65	129	87[b]
Côte d'Ivoire	1994	21	10	31	79	26	74	117	63	190	97
Dominican Republic	2002	9	1	83	94	46	66	50	20	66	22
Egypt, Arab Rep.	2000	5	2	95	99	94	93	76	30	98	34
Eritrea	1995	27	19	37	92	30	89	74	68	152	104
Ethiopia	2000	32	29	18	52	14	43	93	95	159	147
Gabon	2000	15	7	34	71	18	49	57	36	93	55
Ghana	2003	22	10	74	88	64	87	61	58	128	88
Guatemala	1998–99	26	10	80	91	74	76	58	39	78	39
Guinea	1999	22	13	33	73	30	69	119	70	230	133
Haiti	2000	18	6	43	63	31	58	100	97	164	109
India	1998–99	33	21	28	81	36	85	97	38	141	46
Indonesia	2002–03	..	..	59	85	42	72	61	17	77	22
Jordan	1997	7	3	90	93	98	93	35	23	42	25
Kazakhstan	1999	5	6	74	76[b]	90	82[b]	68	42	82	45
Kenya	2003	22	7	54	88	56	73	96	62	149	91
Kyrgyz Republic	1997	10	7	82	81	82	87	83	46	96	49
Madagascar	1997	29	24	32	79	32	81	119	58	195	101
Malawi	2000	24	11	80	90	79	93	132	86	231	149
Mali	2001	26	13	40	77	28	71	137	90	248	148
Mauritania	2000–01	23	15	42	86	18	61	61	62	98	79
Morocco	2003–04	13	3	83	98	89	98	62	24	78	26
Mozambique	2003	21	7	61	96	52	96	143	71	196	108
Namibia	2000	22	10	76	86	76	83	36	23	55	31
Nepal	2001	40	26	61	83	62	85	86	53	130	68
Nicaragua	2001	13	2	76	94	77	83	50	16	64	19
Niger	1998	30	26	23	66	9	68	131	86	282	184
Nigeria	2003	24	10	16	71	7	61	133	52	257	79
Pakistan	1990–91	33	19	28	75	24	64	89	63	125	74
Paraguay	1990	5	1	48	69	40	69	43	16	57	20
Peru	2000	13	1	81	92	76	93	64	14	93	18
Philippines	2003	..	..	70	89	64	92	42	19	66	21
Rwanda	2000	19	12	84	89	80	89	139	88	246	154
Senegal	1997	..	..	..	..	..	..	85	45	181	70
South Africa	1998	..	..	74	85	64	85	62	17	87	22
Tanzania	2004	20	11	65	91	34	36	88	64	137	93
Togo	1998	23	10	35	63	29	68	84	66	168	97
Turkey	1998	13	3	64	89	45	81	68	30	85	33
Turkmenistan	2000	12	10	91	80	97	86	89	58	106	70
Uganda	2000–01	21	10	49	65	35	55	106	60	192	106
Uzbekistan	1996	15	10	96	93	89	82	54	46	70	50
Vietnam	2002	..	..	64	98	53	94	39	14	53	16
Yemen, Rep.	1997	36	24	16	73	14	71	109	60	163	73
Zambia	2001–02	24	17	81	88	74	89	115	57	192	92
Zimbabwe	1999	16	6	80	86	81	86	59	44	100	62

2.19 Health gaps by income and gender

	Survey year	Prevalence of child malnutrition		Child immunization rate				Infant mortality rate		Under-five mortality rate	
		Underweight % of children under age 5		% of children ages 12–23 months[a]				per 1,000 live births		per 1,000	
				Measles		DPT					
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Armenia	2000	2	3	71	79	90	89	46	42	51	45
Bangladesh	2004	34	35	76	76	81	81	80	64	102	91
Benin	2001	19	17	69	67	74	71	98	92	162	163
Bolivia	2003	6	6	65	63	70	73	71	64	94	91
Brazil	1996	6	5	87	87	82	80	52	44	60	53
Burkina Faso	2003	25	23	54	58	57	57	95	89	195	192
Cambodia	2000	32	33	57	54	50	47	103	82	133	110
Cameroon	2004	14	15	65	66	65	68	88	74	154	141
Central African Republic	1994–95	21	19	52	53	49	46	109	94	165	152
Chad	2004	23	23	23	23	20	21	122	108	207	198
Colombia	2005	6	6	83	82	84	81	26	18	30	21
Comoros	1996	19	17	63	64	68	69	93	75	122	103
Côte d'Ivoire	1994	19	16	54	52	49	45	99	83	163	137
Dominican Republic	2002	5	5	89	88	54	61	38	31	46	40
Egypt, Arab Rep.	2000	4	3	97	97	94	94	55	55	69	70
Eritrea	1995	26	27	52	50	49	49	82	69	163	141
Ethiopia	2000	32	31	28	26	22	19	124	101	197	178
Gabon	2000	10	9	55	55	40	33	74	49	103	80
Ghana	2003	17	17	82	83	81	77	70	59	111	108
Guatemala	1998–99	21	18	82	87	73	74	50	48	64	65
Guinea	1999	17	19	52	52	46	47	112	101	202	188
Haiti	2000	14	13	54	54	43	43	97	83	143	132
India	1998–99	28	30	52	50	56	54	75	71	98	105
Indonesia	2002–03	..	..	73	71	58	59	46	40	58	51
Jordan	1997	4	5	90	90	96	96	34	23	38	30
Kazakhstan	1999	4	4	79	78	89	88	62	47	72	53
Kenya	2003	18	14	73	72	71	74	84	67	122	103
Kyrgyz Republic	1997	11	8	84	85	83	81	72	60	81	70
Madagascar	1997	27	27	47	45	48	49	109	90	176	152
Malawi	2000	20	19	83	83	84	85	117	108	207	199
Mali	2001	24	21	49	48	41	38	136	116	250	226
Mauritania	2000–01	22	22	61	63	39	41	74	59	110	94
Morocco	2003–04	9	8	88	92	95	95	51	37	59	48
Mozambique	2003	18	17	77	76	73	71	127	120	181	176
Namibia	2000	19	18	79	82	78	81	45	34	67	54
Nepal	2001	35	36	73	69	74	70	79	75	105	112
Nicaragua	2001	9	7	87	86	84	81	39	32	48	41
Niger	1998	29	30	36	34	25	25	141	131	299	306
Nigeria	2003	19	20	34	38	19	24	116	102	222	212
Pakistan	1990–91	27	27	55	46	45	40	102	86	122	119
Paraguay	1990	3	4	56	61	50	57	39	33	49	45
Peru	2000	6	6	84	85	85	84	46	40	64	57
Philippines	2003	..	..	78	81	78	80	35	25	48	34
Rwanda	2000	19	19	86	88	85	87	123	112	215	198
Senegal	1997	..	..	..	..	..	..	74	65	144	134
South Africa	1998	..	..	84	81	74	78	49	35	66	48
Tanzania	2004	18	18	80	80	37	33	83	82	135	130
Togo	1998	19	18	45	40	43	41	89	71	156	132
Turkey	1998	7	7	79	78	60	57	51	46	61	58
Turkmenistan	2000	11	10	87	88	93	92	83	60	101	76
Uganda	2000–01	18	17	56	57	45	48	93	85	164	149
Uzbekistan	1996	15	13	91	92	87	90	50	37	65	46
Vietnam	2002	..	..	84	82	72	73	25	25	34	31
Yemen, Rep.	1997	33	30	45	40	41	39	98	80	128	114
Zambia	2001–02	21	21	83	86	78	82	95	93	176	160
Zimbabwe	1999	12	11	77	81	80	82	63	56	95	85

2.19 Health gaps by income and gender

	Survey year	Pregnant women receiving prenatal care		Contraceptive prevalence		Births attended by skilled health staff[c]		Total fertility rate[d]		Exclusive breastfeeding	
		%		% of married women ages 15–49		% of total		births per woman		% of children under 4 months	
		Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile	Poorest quintile	Richest quintile
Armenia	2000	85	97	16	29	93	100	2.5	1.6	..	..
Bangladesh	2004	25	81	45	50	3	39	4.1	2.2	62	31
Benin	2001	73	100	4	15	50	99	7.2	3.5	50	42[b]
Bolivia	2003	62	98	23	49	27	98	6.7	2.0	79	31
Brazil	1996	72	98	56	77	72	99	4.8	1.7	33	60[b]
Burkina Faso	2003	56	96	2	27	19	84	6.6	3.6	17	28
Cambodia	2000	22	80	13	25	15	81	4.7	2.2	14	18
Cameroon	2004	65	97	2	27	29	95	6.5	3.2	33	30[b]
Central African Republic	1994–95	39	91	1	9	14	82	5.1	4.9	9	4
Chad	2004	9	77	0	7	1	51	5.1	6.0	1	2
Colombia	2005	84	99	60	72	72	99	4.1	1.4	60	64
Comoros	1996	67	95	7	19	26	85	6.4	3.0	3[b]	..
Côte d'Ivoire	1994	62	98	1	13	17	84	6.4	3.7	0	5
Dominican Republic	2002	97	99	59	70	94	100	4.5	2.1	18	6
Egypt, Arab Rep.	2000	31	84	43	61	31	94	4.0	2.9	72	57
Eritrea	1995	34	90	0[e]	19	5	74	8.0	3.7	64	73
Ethiopia	2000	15	60	3	23	1	25	6.3	3.6	63	46
Gabon	2000	85	98	6	18	67	97	6.3	3.0	6	5[b]
Ghana	2003	83	98	9	26	21	90	6.4	2.8	62[b]	..
Guatemala	1998–99	37	97	55	32	9	92	7.6	2.9	62	..
Guinea	1999	58	97	1	9	12	82	5.8	4.0	9	8
Haiti	2000	65	91	17	24	4	70	6.8	2.7	40	15[b]
India	1998–99	44	93	29	55	16	84	3.4	1.8	64	37
Indonesia	2002–03	78	99	49	58	40	94	3.0	2.2	58	35
Jordan	1997	93	97	28	47	91	99	5.2	3.1	14	14[b]
Kazakhstan	1999	97	91	49	55	99	99	3.4	1.2	..	..
Kenya	2003	75	94	12	44	17	75	7.6	3.1	22	17
Kyrgyz Republic	1997	96	99	44	54	96	100	4.6	2.0	18[b]	..
Madagascar	1997	67	96	2	24	30	89	8.1	3.4	57	65
Malawi	2000	89	98	20	40	43	83	7.1	4.8	53	72
Mali	2001	42	92	4	18	22	89	7.3	5.3	38	18
Mauritania	2000–01	33	89	0[e]	17	15	93	5.4	3.5	28	30
Morocco	2003–04	40	93	51	57	29	95	3.3	1.9	53	36
Mozambique	2003	67	98	14	37	25	89	6.3	3.8	47	27
Namibia	2000	81	96	29	64	55	97	6.0	2.7	100[b]	85[b]
Nepal	2001	30	80	24	55	4	45	5.3	2.3	76	67
Nicaragua	2001	69	97	50	71	78	99	5.6	2.1	53	15[b]
Niger	1998	24	85	1	18	4	63	8.4	5.7	1	3
Nigeria	2003	37	96	4	21	13	85	6.5	4.2	15	34
Pakistan	1990–91	8	72	1	23	5	55	5.1	4.0	36	9
Paraguay	1990	73	98	21	46	41	98	7.9	2.7	7	0
Peru	2000	41	74	37	58	13	88	5.5	1.6	88	59
Philippines	2003	72	97	24	35	25	92	5.9	2.0	60	20
Rwanda	2000	90	95	2	15	17	60	6.0	5.4	89	79
Senegal	1997	67	97	1	24	20	86	7.4	3.6	13	19
South Africa	1998	96	94	34	70	68	98	4.8	1.9	15	11[b]
Tanzania	2004	91	97	11	36	31	87	7.3	3.3	58	55
Togo	1998	69	97	3	13	25	91	7.3	2.9	7	34
Turkey	1998	38	96	24	48	53	98	3.9	1.7	10	4[b]
Turkmenistan	2000	98	97	51	50	97	98	3.4	2.1	11	28[b]
Uganda	2000–01	88	98	11	41	20	77	8.5	4.1	73	59
Uzbekistan	1996	93	96	46	52	92	100	4.4	2.2	..	..
Vietnam	2002	68	100	58	52	58	100	2.2	1.4	18[b]	..
Yemen, Rep.	1997	17	68	1	24	7	50	7.3	4.7	20	13
Zambia	2001–02	89	99	11	53	20	91	7.3	3.6	39	70[b]
Zimbabwe	1999	94	97	41	67	57	94	4.9	2.6	36	46[b]

a. Refers to children who were immunized at any time before the survey. b. Data contain large sampling errors because of the small number of cases. c. Based on births in the five years before the survey. d. Based on information in the three years before the survey. e. Less than 0.5.

2.19 Health gaps by income and gender

About the data

The data in the table describe the health status and use of health services by individuals in different socioeconomic groups within countries. The data are from Demographic and Health Surveys conducted by Macro International with the support of the U.S. Agency for International Development. These large-scale household sample surveys, conducted periodically in developing countries, collect information on a large number of health, nutrition, and population measures as well as on respondents' social, demographic, and economic characteristics using a standard set of questionnaires. The data presented here draw on responses to individual and household questionnaires.

The table defines socioeconomic status in terms of a household's assets, including ownership of consumer items, features of the household's dwelling, and other characteristics related to wealth. Each household asset on which information was collected was assigned a weight generated through principal-component analysis. The resulting scores were standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one. The standardized scores were then used to create break-points defining wealth quintiles, expressed as quintiles of individuals in the population rather than quintiles of individuals at risk with respect to any one health indicator.

The choice of the asset index for defining socioeconomic status was based on pragmatic rather than conceptual considerations: Demographic and Health Surveys do not provide income or consumption data but do have detailed information on households' ownership of consumer goods and access to a variety of goods and services. Like income or consumption, the asset index defines disparities in primarily economic terms. It therefore excludes other possibilities of disparities among groups, such as those based on gender, education, ethnic background, or other facets of social exclusion. To that extent the index provides only a partial view of the multidimensional concepts of poverty, inequality, and inequity.

Creating one index that includes all asset indicators limits the types of analysis that can be performed. In particular, the use of a unified index does not permit a disaggregated analysis to examine which asset indicators have a more or less important association with health status or use of health services. In addition, some asset indicators may reflect household wealth better in some countries than in others—or reflect different degrees of wealth in different countries. Taking such information into account and creating country-specific asset indexes with country-specific choices of asset indicators might produce a more effective and accurate index for each country. The asset index used in the table does not have this flexibility.

The analysis was carried out for 56 countries, with the results issued in country reports. The table shows the estimates for the poorest and richest quintiles and by sex only; the full set of estimates for up to 117 indicators is available in the country reports (see *Data sources*). The data in this table will differ from data for similar indicators in preceding tables either because the indicator refers to a period a few years preceding the survey date or because the indicator definition or methodology is different.

Definitions

• **Survey year** is the year in which the underlying data were collected. • **Prevalence of child malnutrition** is the percentage of children under age five whose weight for age is between two and three standard deviations below the median reference standard for their age as established by the World Health Organization, the U.S. Centers for Disease Control and Prevention, and the U.S. National Center for Health Statistics. These data may differ from those in table 2.17. • **Child immunization rate** is the percentage of children ages 12–23 months at the time of the survey who received vaccinations at any time before the survey for four diseases—measles and diphtheria, pertussis (whooping cough), and tetanus (DPT). These data may differ from those in table 2.15. • **Infant mortality rate** is the number of infants dying before reaching one year of age, per 1,000 live births in a given year. Data in the table are based on births in the 10 years preceding the survey and may therefore differ from the estimates in table 2.20. • **Under-five mortality rate** is the probability that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000. Data in the table are based on births in the 10 years preceding the survey and may therefore differ from the estimates in table 2.20. • **Pregnant women receiving prenatal care** are the percentage of women with one or more births during the five years preceding the survey, who were attended at least once during pregnancy by skilled health personnel for reasons related to pregnancy. These data may differ from those in table 2.16. • **Contraceptive prevalence** is the percentage of women married or in-union ages 15–49 who are practicing, or whose sexual partners are practicing, any modern method of contraception. These data may differ from those in table 2.16. • **Births attended by skilled health staff** are the percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; to conduct deliveries on their own; and to care for newborns. Skilled health staff include doctors, nurses, and trained midwives, but exclude trained or untrained traditional birth attendants. Data in the tables are based on births in the five years preceding the survey and may therefore differ from the estimates in table 2.16. • **Total fertility rate** is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates. Data in the table are based on the information in the three years preceding the survey and may therefore differ from the estimates in table 2.16. • **Exclusive breastfeeding** refers to the percentage of children ages 0–3 months who received only the breast milk in the 24 hours preceding the survey. These data differ from those in table 2.17 because the definition differs.

Data sources

Data on health gaps by income and gender are from an analysis of Demographic and Health Surveys by the World Bank and Macro International. Country reports are available at www.worldbank.org/povertyandhealth/countrydata.

2.20 Mortality

	Life expectancy at birth		Infant mortality rate		Under-five mortality rate		Child mortality rate		Adult mortality rate		Survival to age 65	
							per 1,000		per 1,000		% of cohort	
	years		per 1,000 live births		per 1,000		Male	Female	Male	Female	Male	Female
	1990	2005	1990	2005	1990	2005	1997–2005[a]	1997–2005[a]	2001–05[a]	2001–05[a]	2005	2005
Afghanistan	..	..	..	..	..	..	..	..	..	..	..	..
Albania	72	75	37	16	45	18	..	..	96	55	81	88
Algeria	67	72	54	34	69	39	..	..	132	112	76	80
Angola	40	41	154	154	260	260	..	..	505	461	29	34
Argentina	72	75	26	15	29	18	..	..	174	87	73	86
Armenia	68	73	46	26	54	29	5	3	204	92	67	82
Australia	77	81	8	5	10	6	..	..	89	50	86	92
Austria	76	79	8	4	10	5	..	..	120	59	83	91
Azerbaijan	71	72	84	74	105	89	..	..	226	104	61	77
Bangladesh	55	64	100	54	149	73	24	29	238	205	61	66
Belarus	71	68	16	10	19	12	..	..	357	128	52	80
Belgium	76	79	8	4	10	5	..	..	125	67	83	91
Benin	53	55	111	89	185	150	72	79	309	277	50	55
Bolivia	59	65	89	52	125	65	25	29	253	192	61	69
Bosnia and Herzegovina	72	74	18	13	22	15	..	..	152	78	75	86
Botswana	64	35	45	87	58	120	..	..	841	853	11	11
Brazil	66	71	50	31	60	33	..	..	252	132	65	79
Bulgaria	72	73	15	12	19	15	..	..	216	91	70	85
Burkina Faso	48	48	113	96	210	191	110	113	407	386	40	43
Burundi	44	45	114	114	190	190	..	..	512	492	32	35
Cambodia	54	57	80	68	115	87	34	30	372	208	47	63
Cameroon	52	46	85	87	139	149	73	72	508	499	34	36
Canada	77	80	7	5	8	6	..	..	97	60	86	91
Central African Republic	48	39	102	115	168	193	..	..	658	662	22	24
Chad	46	44	120	124	201	208	96	101	495	471	32	35
Chile	74	78	18	8	21	10	..	..	131	65	80	89
China	69	72	38	23	49	27	..	..	141	87	75	82
Hong Kong, China	77	82	..	..	..	..	..	..	79	34	87	94
Colombia	68	73	26	17	35	21	4	3	182	103	72	82
Congo, Dem. Rep.	46	44	129	129	205	205	..	..	486	460	32	36
Congo, Rep.	54	53	83	81	110	108	..	..	450	424	40	46
Costa Rica	77	79	16	11	18	12	..	..	117	66	82	89
Côte d'Ivoire	52	46	103	118	157	195	83	58	474	461	35	38
Croatia	72	76	11	6	12	7	..	..	164	67	74	89
Cuba	75	77	11	6	13	7	..	..	121	81	81	87
Czech Republic	71	76	11	3	13	4	..	..	161	69	76	89
Denmark	75	78	8	4	9	5	..	..	121	74	82	88
Dominican Republic	66	68	50	26	65	31	9	9	267	145	62	76
Ecuador	69	75	43	22	57	25	..	..	184	105	73	83
Egypt, Arab Rep.	63	71	76	28	104	33	15	16	171	104	71	81
El Salvador	66	71	47	23	60	27	..	..	221	137	68	79
Eritrea	48	55	88	50	147	78	55	50	455	384	39	48
Estonia	69	73	12	6	16	7	..	..	288	94	60	85
Ethiopia	45	43	122	80	204	127	83	86	451	425	37	41
Finland	75	79	6	3	7	4	..	..	136	61	82	92
France	77	80	7	4	9	5	..	..	135	60	82	92
Gabon	60	54	60	60	92	91	32	33	438	432	44	46
Gambia, The	50	57	103	97	151	137	..	..	320	281	51	56
Georgia	70	71	43	41	47	45	..	..	214	82	67	83
Germany	75	79	7	4	9	5	..	..	119	61	83	91
Ghana	56	57	75	68	122	112	44	52	344	330	51	54
Greece	77	79	10	4	11	5	..	..	112	49	83	92
Guatemala	62	68	60	32	82	43	15	18	296	172	61	74
Guinea	47	54	139	97	234	160	101	98	324	303	49	52
Guinea-Bissau	42	45	153	124	253	200	..	..	465	423	34	39
Haiti	49	53	102	84	150	120	52	54	454	447	41	43

2.20 Mortality

	Life expectancy at birth		Infant mortality rate		Under-five mortality rate		Child mortality rate		Adult mortality rate		Survival to age 65	
							per 1,000		per 1,000		% of cohort	
	years		per 1,000 live births		per 1,000		Male	Female	Male	Female	Male	Female
	1990	2005	1990	2005	1990	2005	1997–2005[a]	1997–2005[a]	2001–05[a]	2001–05[a]	2005	2005
Honduras	65	69	44	31	59	40	..	..	245	201	65	72
Hungary	69	73	15	7	17	8	..	..	261	111	67	85
India	59	64	80	56	123	74	25	37	235	154	61	69
Indonesia	62	68	60	28	91	36	13	11	205	155	66	74
Iran, Islamic Rep.	65	71	54	31	72	36	..	..	158	104	73	81
Iraq	62	..	40	..	50	..	..	..	..	..	..	..
Ireland	75	79	8	5	9	6	..	..	94	56	84	90
Israel	77	80	10	5	12	6	..	..	86	46	86	92
Italy	77	80	8	4	9	4	..	..	92	48	85	92
Jamaica	71	71	17	17	20	20	..	..	237	194	68	73
Japan	79	82	5	3	6	4	..	..	92	45	86	94
Jordan	68	72	33	22	40	26	5	5	165	123	73	79
Kazakhstan	68	66	53	63	63	73	11	6	343	152	49	73
Kenya	58	49	64	79	97	120	42	39	479	551	38	35
Korea, Dem. Rep.	65	64	42	42	55	55	..	..	305	208	53	67
Korea, Rep.	71	78	8	5	9	5	..	..	138	54	79	91
Kuwait	75	78	14	9	16	11	..	..	88	58	83	88
Kyrgyz Republic	68	68	68	58	80	67	10	11	264	124	60	77
Lao PDR	50	56	120	62	163	79	..	..	318	269	50	55
Latvia	69	71	14	9	18	11	..	..	300	116	62	83
Lebanon	69	73	32	27	37	30	..	..	151	99	74	83
Lesotho	57	35	81	102	101	132	..	..	853	817	10	14
Liberia	43	42	157	157	235	235	..	..	535	500	28	32
Libya	68	74	35	18	41	19	..	..	137	93	76	84
Lithuania	71	71	10	7	13	9	..	..	303	106	62	86
Macedonia, FYR	72	74	33	15	38	17	..	..	139	81	76	85
Madagascar	51	56	103	74	168	119	45	45	337	294	49	54
Malawi	46	41	131	79	221	125	101	102	635	653	25	25
Malaysia	70	74	16	10	22	12	..	..	154	89	75	84
Mali	46	49	140	120	250	218	132	125	358	323	42	46
Mauritania	49	54	85	78	133	125	38	38	341	284	46	52
Mauritius	69	73	20	13	23	15	..	..	207	110	68	82
Mexico	71	75	37	22	46	27	..	..	155	86	76	85
Moldova	68	68	29	14	35	16	..	..	276	137	60	77
Mongolia	63	67	78	39	108	49	..	..	237	168	60	69
Morocco	64	70	69	36	89	40	9	11	162	109	72	80
Mozambique	43	42	158	100	235	145	61	64	600	593	26	28
Myanmar	56	61	91	75	130	105	..	..	301	200	54	65
Namibia	62	47	60	46	86	62	22	20	620	625	30	31
Nepal	55	63	100	56	145	74	28	40	248	222	60	63
Netherlands	77	79	7	4	9	5	..	..	90	64	84	90
New Zealand	75	80	8	5	11	6	..	..	99	65	85	90
Nicaragua	64	70	52	30	68	37	10	9	219	146	68	76
Niger	40	45	191	150	320	256	184	202	368	339	39	41
Nigeria	46	44	120	100	230	194	120	123	499	495	32	33
Norway	77	80	7	3	9	4	..	..	92	57	86	91
Oman	70	75	25	10	32	12	..	..	114	85	80	85
Pakistan	59	65	100	79	130	99	..	..	180	152	64	67
Panama	72	75	27	19	34	24	..	..	152	83	77	86
Papua New Guinea	52	56	69	55	94	74	..	..	388	349	44	49
Paraguay	68	71	33	20	41	23	..	..	159	106	72	81
Peru	66	71	58	23	78	27	19	17	186	120	69	78
Philippines	66	71	41	25	62	33	14	9	169	116	72	80
Poland	71	75	19	6	18	7	..	..	189	75	71	87
Portugal	74	78	11	4	14	5	..	..	139	58	81	91
Puerto Rico	75	78	..	..	..	..	..	..	186	69	74	89

2.20 Mortality

	Life expectancy at birth		Infant mortality rate		Under-five mortality rate		Child mortality rate		Adult mortality rate		Survival to age 65	
	years		per 1,000 live births		per 1,000		per 1,000 Male	per 1,000 Female	per 1,000 Male	per 1,000 Female	% of cohort Male	% of cohort Female
	1990	2005	1990	2005	1990	2005	1997–2005[a]	1997–2005[a]	2001–05[a]	2001–05[a]	2005	2005
Romania	70	72	27	16	31	19	..	..	223	96	67	84
Russian Federation	69	65	21	14	27	18	..	..	467	173	45	76
Rwanda	31	44	103	118	173	203	105	97	505	455	31	36
Saudi Arabia	68	73	35	21	44	26	3	4	148	101	77	82
Senegal	53	56	72	61	149	119	76	74	311	262	51	56
Serbia and Montenegro	72	73	24	12	28	15	..	..	164	89	73	85
Sierra Leone	39	41	175	165	302	282	..	..	432	379	32	37
Singapore	74	80	7	3	8	3	..	..	85	50	85	91
Slovak Republic	71	74	12	7	14	8	..	..	202	78	71	87
Slovenia	73	78	8	3	10	4	..	..	141	63	78	89
Somalia	42	48	133	133	225	225	..	..	395	341	39	44
South Africa	62	48	45	55	60	68	18	13	658	638	25	30
Spain	77	81	8	4	9	5	..	..	113	46	83	93
Sri Lanka	71	75	26	12	32	14	..	..	130	77	78	87
Sudan	53	57	74	62	120	90	..	..	339	299	50	55
Swaziland	57	41	78	110	110	160	..	..	885	893	8	8
Sweden	78	81	6	3	7	4	..	..	82	51	87	92
Switzerland	77	81	7	4	9	5	..	..	87	47	86	92
Syrian Arab Republic	68	74	31	14	39	15	..	..	130	90	77	84
Tajikistan	63	64	91	59	115	71	..	..	219	146	60	70
Tanzania	53	46	102	76	161	122	56	52	507	511	34	36
Thailand	68	71	31	18	37	21	..	..	228	119	68	82
Togo	57	55	88	78	152	139	73	65	369	310	47	55
Trinidad and Tobago	71	70	28	17	33	19	..	..	260	186	65	75
Tunisia	70	73	41	20	52	24	..	..	134	77	77	86
Turkey	66	71	67	26	82	29	10	13	186	115	69	79
Turkmenistan	63	63	80	81	97	104	19	17	305	156	53	71
Uganda	46	50	93	79	160	136	78	70	459	447	39	41
Ukraine	70	68	19	13	26	17	..	..	404	150	47	76
United Arab Emirates	73	79	13	8	15	9	..	..	78	50	86	91
United Kingdom	76	79	8	5	10	6	..	..	101	63	84	90
United States	75	78	9	6	11	7	..	..	144	84	80	87
Uruguay	73	76	21	14	23	15	..	..	161	83	74	87
Uzbekistan	69	67	65	57	79	68	..	..	247	145	61	74
Venezuela, RB	71	74	27	18	33	21	..	..	184	93	73	84
Vietnam	65	71	38	16	53	19	10	7	173	121	73	80
West Bank and Gaza	69	73	34	21	40	23	..	..	138	101	76	83
Yemen, Rep.	55	62	98	76	139	102	33	36	267	222	57	63
Zambia	46	38	101	102	180	182	89	74	672	713	21	20
Zimbabwe	59	37	53	81	80	132	35	31	772	808	16	14
World	**65 w**	**68 w**	**64 w**	**51 w**	**95 w**	**75 w**			**232 w**	**164 w**	**67 w**	**75 w**
Low income	56	59	94	75	147	114			290	237	55	61
Middle income	68	70	44	30	58	37			196	120	70	79
Lower middle income	67	71	46	31	62	39			176	111	71	80
Upper middle income	69	70	33	22	41	27			289	159	62	78
Low & middle income	63	65	69	56	103	82			235	167	64	72
East Asia & Pacific	67	71	43	26	59	33			162	105	73	80
Europe & Central Asia	69	69	39	27	48	32			320	136	58	79
Latin America & Carib.	68	72	43	26	54	31			208	118	70	81
Middle East & N. Africa	64	70	60	43	80	53			171	119	71	79
South Asia	59	63	86	62	129	83			230	161	61	68
Sub-Saharan Africa	49	47	109	96	185	163			483	470	35	38
High income	76	79	9	6	11	7			122	65	82	90
Europe EMU	76	80	8	4	9	5			118	57	83	92

a. Data are for the most recent year available.

About the data

Mortality rates for different age groups (infants, children, and adults) and overall indicators of mortality (life expectancy at birth or survival to a given age) are important indicators of health status in a country. Because data on the incidence and prevalence of diseases (morbidity data) are frequently unavailable, mortality rates are often used to identify vulnerable populations. And they are among the indicators most frequently used to compare levels of socioeconomic development across countries.

The main sources of mortality data are vital registration systems and direct or indirect estimates based on sample surveys or censuses. A "complete" vital registration system—one covering at least 90 percent of vital events in the population—is the best source of age-specific mortality data. But such systems are fairly uncommon in developing countries. Thus estimates must be obtained from sample surveys or derived by applying indirect estimation techniques to registration, census, or survey data. Survey data are subject to recall error, and surveys estimating infant deaths require large samples because households in which a birth or an infant death has occurred during a given year cannot ordinarily be pre-selected for sampling. Indirect estimates rely on estimated actuarial "life" tables that may be inappropriate for the population concerned. Because life expectancy at birth is constructed using infant mortality data and model life tables, similar reliability issues arise for this indicator.

Life expectancy at birth and age-specific mortality rates are generally estimates based on vital registration or the most recent census or survey available (see *Primary data documentation*). Extrapolations based on outdated surveys may not be reliable for monitoring changes in health status or for comparative analytical work.

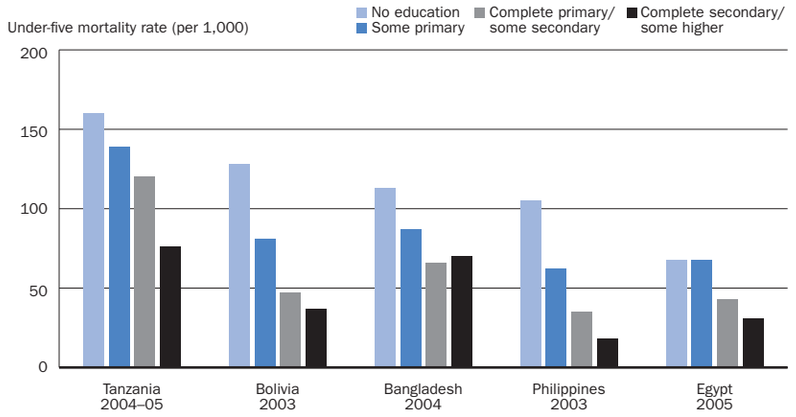
To produce harmonized estimates of infant and under-five mortality rates that use all available information in a transparent way, the United Nations Children's Fund (UNICEF) and the World Bank developed and adopted a methodology that fits a regression line to the relationship between mortality rates and their reference dates using weighted least squares. (For further discussion of methodology for childhood mortality estimates, see Hill and others 1999.)

Infant and child mortality rates are higher for boys than for girls in countries in which parental gender preferences are insignificant. Child mortality captures the effect of gender discrimination better than does infant mortality, as malnutrition and medical interventions are more important in this age group. Where female child mortality is higher, as in some countries in South Asia, girls probably have unequal access to resources.

Adult mortality rates have increased in many countries in Sub-Saharan Africa and Europe and Central Asia. In Sub-Saharan Africa the increase stems from AIDS-related mortality and affects both men and women. In Europe and Central Asia the causes are more diverse and affect men more. They include a high prevalence of smoking, a high-fat diet, excessive alcohol use, and stressful conditions related to the economic transition.

The percentage of a cohort surviving to age 65 reflects both child and adult mortality rates. Like life expectancy, it is a synthetic measure based on current age-specific mortality rates. It shows that even in countries where mortality is high, a certain share of the current birth cohort will live well beyond the life expectancy at birth, while in low-mortality countries close to 90 percent will reach at least age 65.

Under-five mortality rates improve as mothers' education levels rise **2.20a**



Source: Demographic and Health Surveys.

Definitions

• **Life expectancy at birth** is the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life. • **Infant mortality rate** is the number of infants dying before reaching one year of age, per 1,000 live births in a given year. • **Under-five mortality rate** is the probability that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000. • **Child mortality rate** is the probability of dying between the ages of one and five, if subject to current age-specific mortality rates. The probability is expressed as a rate per 1,000. • **Adult mortality rate** is the probability of dying between the ages of 15 and 60—that is, the probability of a 15-year-old dying before reaching age 60—if subject to current age-specific mortality rates between those ages. • **Survival to age 65** refers to the percentage of a cohort of newborn infants that would survive to age 65, if subject to current age-specific mortality rates.

Data sources

Data on infant and under-five mortality are the harmonized estimates of the World Health Organization, UNICEF, and the World Bank, based mainly on household surveys, censuses, and vital registration data, supplemented by the World Bank's estimates based on household surveys and vital registration data. Other estimates are compiled and produced by the World Bank's Human Development Network and Development Data Group in consultation with its operational staff and country offices. Important inputs to the World Bank's demographic work come from the United Nations Population Division's *World Population Prospects: The 2004 Revision,* census reports and other statistical publications from national statistical offices, Demographic and Health Surveys by Macro International, and the Human Mortality Database by the University of California, Berkeley, and the Max Planck Institute for Demographic Research (www.mortality.org/).