	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 continuous 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 new registered cases	% of new estimated cases
	1990	2006	1990	2006	Measles 2007	DTP3 2007	2002–07[c]	2002–07[c]	2002–07[c]	2002–07[c]	2006	2007
Afghanistan	..	..	..	..	..	..	..	..	..	..	84	64
Albania	..	97	..	97	97	98	45	50	..	..	93	54
Algeria	94	85	88	94	92	95	53	24	..	..	91	98
Angola	39	51	26	50	88	83	..	..	17.7	29.3	18	102
Argentina	94	96	81	91	99	96	..	..	..	..	63	76
Armenia	..	98	..	91	92	88	36	59	..	..	69	51
Australia	100	100	100	100	94	92	..	..	..	..	85	49
Austria	100	100	100	100	79	85	..	..	..	..	71	41
Azerbaijan	68	78	..	80	97	95	33	45	..	..	60	46
Bangladesh	78	80	26	36	88	90	30	49	..	..	92	66
Belarus	100	100	..	93	99	95	90	54	..	..	70	40
Belgium	..	..	..	..	92	99	..	..	..	..	73	58
Benin	63	65	12	30	61	67	36	42	20.1	54.0	87	86
Bolivia	72	86	33	43	81	81	52	54	..	..	83	71
Bosnia and Herzegovina	97	99	..	95	96	95	91	53	..	..	97	81
Botswana	93	96	38	47	90	97	..	..	..	..	72	57
Brazil	83	91	71	77	99	98	..	..	..	..	72	69
Bulgaria	99	99	99	99	96	95	..	..	..	..	80	81
Burkina Faso	34	72	5	13	94	99	39	42	9.6	48.0	73	18
Burundi	70	71	44	41	75	74	38	23	8.3	30.0	83	27
Cambodia	19	65	8	28	79	82	48	50	4.2	0.2	93	61
Cameroon	49	70	39	51	74	82	35	22	13.1	57.8	74	91
Canada	100	100	100	100	94	94	..	..	..	..	57	62
Central African Republic	58	66	11	31	62	54	32	47	15.1	57.0	65	*71*
Chad	..	48	5	9	23	20	12	27	0.6	44.0	54	18
Chile	91	95	84	94	91	94	..	..	..	..	85	105
China	67	88	48	65	94	93	..	..	..	..	94	80
Hong Kong, China	..	..	..	..	..	..	..	..	..	..	78	60
Colombia	89	93	68	78	95	93	62	39	..	..	71	81
Congo, Dem. Rep.	43	46	15	31	79	87	42	..	5.8	29.8	86	61
Congo, Rep.	..	71	..	20	67	80	48	39	6.1	48.0	53	56
Costa Rica	..	98	94	96	90	89	..	..	..	..	88	120
Côte d'Ivoire	67	81	20	24	67	76	35	45	3.0	36.0	73	42
Croatia	99	99	99	99	96	96	..	..	..	..	30	46
Cuba	..	91	98	98	99	93	..	..	..	..	90	109
Czech Republic	100	100	100	99	97	99	..	..	..	..	69	67
Denmark	100	100	100	100	89	75	..	..	..	..	77	69
Dominican Republic	84	95	68	79	96	79	67	42	..	..	78	66
Ecuador	73	95	71	84	99	99	..	..	..	..	74	46
Egypt, Arab Rep.	94	98	50	66	97	98	63	27	..	..	87	72
El Salvador	69	84	73	86	98	96	62	..	..	..	91	65
Eritrea	43	60	3	5	95	97	44	54	4.2	3.6	90	35
Estonia	100	100	95	95	96	95	..	..	..	..	68	76
Ethiopia	13	42	4	11	65	73	19	15	33.1	9.5	84	28
Finland	100	100	100	100	98	99	..	..	..	..	..	0
France	..	100	..	..	87	98	..	..	..	..	..	0
Gabon	..	87	..	36	55	38	..	..	..	..	46	66
Gambia, The	..	86	..	52	85	90	69	38	49.0	62.6	58	64
Georgia	76	99	94	93	97	98	74	37	..	..	75	113
Germany	100	100	100	100	94	97	..	..	..	..	*71*	54
Ghana	56	80	6	10	95	94	34	29	21.8	60.8	76	36
Greece	96	100	97	98	88	88	..	..	..	..	..	0
Guatemala	79	96	70	84	93	82	64	22	..	..	47	40
Guinea	45	70	13	19	71	75	42	38	1.4	43.5	75	53
Guinea-Bissau	..	57	..	33	76	63	57	25	39.0	45.7	69	68
Haiti	52	58	29	19	58	53	31	43	..	5.1	82	49

Disease prevention coverage and quality

	Access to an improved water source % of population		Access to improved sanitation facilities % of population		Child immunization rate % of children ages 12–23 months[b]		Children with acute respiratory infection taken to health provider % of children under age 5 with ARI	Children with diarrhea who received oral rehydration and continuous feeding % of children under age 5 with diarrhea	Children sleeping under treated bednets[a] % of children under age 5	Children with fever receiving antimalarial drugs % of children under age 5 with fever	Tuberculosis treatment success rate % of new registered cases	DOTS detection rate % of new estimated cases
	1990	2006	1990	2006	Measles 2007	DTP3 2007	2002–07[c]	2002–07[c]	2002–07[c]	2002–07[c]	2006	2007
Honduras	72	84	45	66	89	86	56	49	..	0.5	86	87
Hungary	96	100	100	100	99	99	..	..	..	..	46	51
India	71	89	14	28	67	62	69	33	..	8.2	86	68
Indonesia	72	80	51	52	80	75	61	56	..	..	91	91
Iran, Islamic Rep.	92	..	83	..	97	99	..	..	..	..	83	68
Iraq	83	..	..	..	..	..	..	..	..	..	84	37
Ireland	..	..	..	..	87	92	..	..	..	..	..	0
Israel	100	100	..	..	97	96	..	..	..	..	74	61
Italy	..	..	..	..	87	96	..	..	..	..	67	0
Jamaica	92	93	83	83	76	85	75	39	..	..	41	83
Japan	100	100	100	100	98	98	..	..	..	..	53	77
Jordan	97	98	..	85	95	98	75	44	..	..	71	81
Kazakhstan	96	96	97	97	99	93	71	48	..	..	72	69
Kenya	41	57	39	42	80	81	49	33	6.0	26.5	85	72
Korea, Dem. Rep.	..	100	..	..	99	92	93	..	..	..	86	64
Korea, Rep.	..	..	..	..	92	91	..	..	..	..	81	14
Kuwait	..	..	..	..	99	99	..	..	..	..	78	90
Kyrgyz Republic	..	89	..	93	99	94	62	22	..	..	82	60
Lao PDR	..	60	..	48	40	50	..	..	..	..	92	78
Latvia	99	99	..	78	97	98	..	..	..	..	73	89
Lebanon	100	100	..	..	53	74	..	..	..	..	90	62
Lesotho	..	78	..	36	85	83	59	53	..	..	66	16
Liberia	57	64	40	32	95	88	70	..	..	58.5	76	69
Libya	71	..	97	97	98	98	..	..	..	..	77	162
Lithuania	..	..	..	..	97	95	..	..	..	..	74	90
Macedonia, FYR	..	100	..	89	96	95	93	45	..	..	87	74
Madagascar	39	47	8	12	81	82	48	47	0.2	34.2	78	69
Malawi	41	76	46	60	83	87	52	27	24.7	24.9	78	41
Malaysia	98	99	..	94	90	96	..	..	..	..	48	80
Mali	33	60	35	45	68	68	38	38	27.1	31.7	76	23
Mauritania	37	60	20	24	67	75	45	..	..	20.7	41	39
Mauritius	100	100	94	94	98	97	..	..	..	..	92	69
Mexico	88	95	56	81	96	98	..	..	..	..	80	99
Moldova	..	90	..	79	96	92	60	48	..	..	62	67
Mongolia	64	72	..	50	98	95	63	47	..	..	88	76
Morocco	75	83	52	72	95	95	38	46	..	..	87	93
Mozambique	36	42	20	31	77	72	55	47	..	14.9	83	49
Myanmar	57	80	23	82	81	86	66	65	..	..	84	116
Namibia	57	93	26	35	69	86	72	..	10.5	9.8	76	84
Nepal	72	89	9	27	81	82	43	37	..	0.1	88	66
Netherlands	100	100	100	100	96	96	..	..	..	..	84	11
New Zealand	97	..	..	..	79	88	..	..	..	..	70	60
Nicaragua	70	79	42	48	99	87	..	..	..	..	89	97
Niger	41	42	3	7	47	39	47	34	7.4	33.0	77	53
Nigeria	50	47	26	30	62	54	33	28	1.2	33.9	76	23
Norway	100	100	..	..	92	93	..	..	..	..	93	33
Oman	81	..	85	..	97	99	..	..	..	..	86	125
Pakistan	86	90	33	58	80	83	69	37	..	3.3	88	67
Panama	..	92	..	74	89	88	..	..	..	..	79	98
Papua New Guinea	39	40	44	45	58	60	..	..	..	..	73	15
Paraguay	52	77	60	70	80	66	..	..	..	..	83	58
Peru	75	84	55	72	99	80	67	71	..	..	78	93
Philippines	83	93	58	78	92	87	55	76	..	0.2	88	75
Poland	..	..	..	..	98	99	..	..	..	..	75	66
Portugal	96	99	92	99	95	97	..	..	..	..	87	87
Puerto Rico	..	..	..	..	..	..	..	..	..	..	80	77

	Access to an improved water source (% of population)		Access to improved sanitation facilities (% of population)		Child Immunization rate (% of children ages 12–23 months[b])		Children with acute respiratory infection taken to health provider (% of children under age 5 with ARI)	Children with diarrhea who received oral rehydration and continuous feeding (% of children under age 5 with diarrhea)	Children sleeping under treated bednets[a] (% of children under age 5)	Children with fever receiving antimalarial drugs (% of children under age 5 with fever)	Tuberculosis treatment success rate (% of new registered cases)	DOTS detection rate (% of new estimated cases)
	1990	2006	1990	2006	Measles 2007	DTP3 2007	2002–07[c]	2002–07[c]	2002–07[c]	2002–07[c]	2006	2007
Romania	76	88	72	72	97	97	..	..	..	..	83	85
Russian Federation	94	97	87	87	99	98	..	..	..	..	58	49
Rwanda	65	65	29	23	99	97	28[d]	24	13.0	12.3	86	25
Saudi Arabia	94	96	91	99	96	96	..	..	..	..	69	39
Senegal	67	77	26	28	84	94	47	43	16.4	22.0	76	48
Serbia	..	99[e]	..	92[e]	95	94	93	31	..	..	84	80
Sierra Leone	..	53	..	11	67	64	48	31	5.3	51.9	87	37
Singapore	100	100	100	100	95	96	..	..	..	..	84	96
Slovak Republic	100	100	100	100	99	99	..	..	..	..	81	44
Slovenia	..	..	..	..	96	97	..	..	..	..	92	77
Somalia	..	29	..	23	34	39	13	7	11.4	7.9	89	64
South Africa	81	93	55	59	83	97	..	..	..	..	74	78
Spain	100	100	100	100	97	96	..	..	..	..	..	0
Sri Lanka	67	82	71	86	98	98	58	..	2.9	0.3	87	85
Sudan	64	70	33	35	79	84	..	56	27.6	54.2	82	31
Swaziland	..	60	..	50	91	95	73	22	0.6	0.6	43	55
Sweden	100	100	100	100	96	99	..	..	..	..	63	0
Switzerland	100	100	100	100	86	93	..	..	..	..	..	0
Syrian Arab Republic	83	89	81	92	98	99	77	34	..	..	86	80
Tajikistan	..	67	..	92	85	86	64	22	1.3	1.2	84	30
Tanzania	49	55	35	33	90	83	59	53	16.0	58.2	85	51
Thailand	95	98	78	96	96	98	84	46	..	..	77	72
Timor-Leste	..	62	..	41	63	70	24	..	8.3	47.4	79	61
Togo	49	59	13	12	80	88	23	22	38.4	47.7	67	15
Trinidad and Tobago	88	94	93	92	91	88	74	32	..	..	..	..
Tunisia	82	94	74	85	98	98	..	..	..	..	91	78
Turkey	85	97	85	88	96	96	41	..	..	..	91	76
Turkmenistan	..	..	..	..	99	98	83	25	..	..	84	84
Uganda	43	64	29	33	68	64	73	39	9.7	61.3	70	51
Ukraine	..	97	96	93	98	98	..	..	..	..	59	55
United Arab Emirates	100	100	97	97	92	92	..	..	..	..	79	18
United Kingdom	100	100	..	..	86	92	..	..	..	..	..	0
United States	99	99	100	100	93	96	..	..	..	..	64	87
Uruguay	100	100	100	100	96	94	..	..	..	..	87	95
Uzbekistan	90	88	93	96	99	96	68	28	..	..	81	45
Venezuela, RB	89	..	83	..	55	71	..	..	..	..	82	68
Vietnam	52	92	29	65	83	92	83	65	5.1	2.6	92	82
West Bank and Gaza	..	89	..	80	..	..	..	..	..	..	94	5
Yemen, Rep.	..	66	28	46	74	87	47	48	..	..	83	46
Zambia	50	58	42	52	85	80	68	48	22.8	57.9	85	58
Zimbabwe	78	81	44	46	66	62	25	47	2.9	4.7	60	27
World	76 w	86 w	51 w	60 w	82 w	82 w			.. w	.. w	85 w	63 w
Low income	58	68	26	39	76	77			..	26.4	84	51
Middle income	75	89	48	60	84	82			..	..	85	72
Lower middle income	72	88	41	55	82	79			..	..	87	72
Upper middle income	88	95	77	83	94	96			..	..	72	72
Low & middle income	72	84	44	55	81	80			..	..	85	64
East Asia & Pacific	68	87	48	66	90	89			..	..	91	77
Europe & Central Asia	90	95	88	89	97	96			..	..	70	56
Latin America & Carib.	84	91	68	78	93	92			..	..	76	72
Middle East & N. Africa	89	89	67	77	90	92			..	..	86	72
South Asia	73	87	18	33	72	69			..	7.3	87	67
Sub-Saharan Africa	49	58	26	31	73	73			12.3	34.9	76	47
High income	99	100	100	100	93	95			..	..	68	37
Euro area	..	100	..	..	91	96			..	..	..	17

a. For malaria prevention only. b. Refers to children who were immunized before age 12 months or in some cases at any time before the survey (12–23 months). c. Data are for the most recent year available. d. Data are for 2008. e. Includes Kosovo.

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. 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 World Health Organization (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, which 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 (DTP) 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 5 in developing countries each year. 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 across 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. Insecticide-treated bednets, 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 5 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 5, 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. 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.

For indicators that are from household surveys, the year in the table refers to the survey year. For more information, consult the original sources.

• **Access to an improved water source** refers to people with reasonable access to water from an improved source, such as piped water into a dwelling, public tap, tubewell, protected dug well, and rainwater collection. Reasonable access is 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 people with at least adequate access to excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved facilities range from protected pit latrines to flush toilets. • **Child immunization rate** refers to children ages 12–23 months who, before 12 months or at any time before the survey, had received one dose of measles vaccine and three doses of diphtheria, pertussis (whooping cough), and tetanus (DTP3) vaccine. • **Children with acute respiratory infection taken to health provider** are children under age 5 with acute respiratory infection in the two weeks before the survey who were taken to an appropriate health provider. • **Children with diarrhea who received oral rehydration and continuous feeding** are children under age 5 with diarrhea in the two weeks before the survey who received either oral rehydration therapy or increased fluids, with continuous feeding. • **Children sleeping under treated bednets** are children under age 5 who slept under an insecticide-treated bednet to prevent malaria the night before the survey. • **Children with fever receiving antimalarial drugs** are children under age 5 who were ill with fever in the two weeks before the survey and received any appropriate (locally defined) antimalarial drugs. • **Tuberculosis treatment success rate** refers to new registered infectious tuberculosis cases that were cured or completed a full course of treatment. • **DOTS detection rate** refers to estimated new infectious tuberculosis cases detected by DOTS, the internationally recommended tuberculosis detection and treatment strategy.