



2.17 Health: risk factors and future challenges

	Prevalence of anemia	Low-birthweight babies	Prevalence of child malnutrition		Consumption of iodized salt	Prevalence of smoking		Cigarette consumption	Tuberculosis		Prevalence of HIV	
	% of pregnant women 1985-99 ^a	% of births 1992-98 ^a	Weight for age % of children under 5 1992-98 ^a	Height for age % of children under 5 1992-98 ^a	% of households 1992-98 ^a	Males % of adults 1985-98 ^a	Females % of adults 1985-98 ^a	per smoker per year 1988-98 ^a	Incidence per 100,000 people 1997	Prevalence thousands of cases 1997	% of adults 1997	People infected (all ages) 1997
Albania	..	7	8	15	..	50	8	..	28	2	0.01	<100
Algeria	42	9	13	18	92	..	..	..	44	14	0.07	..
Angola	29	..	..	..	10	..	..	..	238	56	2.12	110,000
Argentina	26	7	2	5	90	40	23	2,771	56	30	0.69	120,000
Armenia	..	..	3	12	..	..	..	..	44	2	0.01	<100
Australia	..	6	0	0	..	29	21	4,951	8	2	0.14	11,000
Austria	..	6	..	..	..	42	27	3,041	19	2	0.18	7,500
Azerbaijan	36	6	10	22	..	..	..	..	58	7	0.01	<100
Bangladesh	53	50	56	55	78	60	15	351	246	620	0.03	21,000
Belarus	..	5	..	..	37	..	..	..	65	10	0.17	9,000
Belgium	..	6	..	..	..	31	19	5,300	16	2	0.14	7,500
Benin	41	..	29	25	79	..	..	..	220	21	2.06	54,000
Bolivia	54	10	8	27	90	50	21	..	253	27	0.07	2,600
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	81	5	0.04	..
Botswana	..	8	..	..	27	..	..	..	503	9	25.10	190,000
Brazil	33	..	6	11	95	40	25	..	78	194	0.63	580,000
Bulgaria	..	7	..	..	..	49	17	3,058	43	6	0.01	..
Burkina Faso	24	21	33	33	23	..	..	..	155	19	7.17	370,000
Burundi	68	16	..	..	80	..	..	..	252	16	8.30	260,000
Cambodia	..	18	..	..	7	70	10	912	539	101	2.40	130,000
Cameroon	44	13	22	29	82	..	..	..	133	35	4.89	320,000
Canada	..	6	..	..	..	31	29	3,081	7	2	0.33	44,000
Central African Republic	67	15	23	28	65	..	..	..	237	9	10.77	180,000
Chad	37	..	39	40	55	..	..	..	205	22	2.72	87,000
Chile	13	7	1	2	97	38	25	1,718	29	5	0.20	16,000
China	52	6	16	31	83	..	..	..	113	2,721	0.06	400,000
Hong Kong, China	..	5	..	..	..	29	3	2,679	95	6	0.08	3,100
Colombia	24	9	8	15	92	35	19	1,684	55	31	0.36	72,000
Congo, Dem. Rep.	..	..	34	45	90	..	..	..	263	188	4.35	950,000
Congo, Rep.	..	16	..	45	..	..	..	..	277	11	7.78	100,000
Costa Rica	27	7	5	6	89	35	20	..	18	1	0.55	10,000
Côte d'Ivoire	34	14	24	24	..	..	..	..	290	48	10.06	700,000
Croatia	..	8	1	1	70	..	..	..	64	5	0.01	..
Cuba	47	8	..	..	45	49	25	2,566	18	2	0.02	1,400
Czech Republic	23	6	1	2	..	43	31	3,187	20	2	0.04	2,000
Denmark	..	5	..	..	..	37	37	2,532	11	1	0.12	3,100
Dominican Republic	..	11	6	11	13	66	14	1,303	114	14	1.89	83,000
Ecuador	17	13	..	..	97	..	..	..	165	32	0.28	18,000
Egypt, Arab Rep.	24	12	12	25	0	..	..	..	36	35	0.03	..
El Salvador	14	9	11	23	91	38	12	..	74	7	0.58	18,000
Eritrea	..	..	44	38	80	..	..	..	227	15	3.17	..
Estonia	..	..	..	..	..	52	24	1,819	52	1	0.01	<100
Ethiopia	42	16	48	64	0	..	..	..	251	213	9.31	2,600,000
Finland	..	5	..	..	..	27	19	2,906	13	1	0.02	500
France	..	6	..	..	..	40	27	3,088	19	11	0.37	110,000
Gabon	..	10	..	..	..	..	..	..	174	4	4.25	23,000
Gambia, The	80	..	26	30	0	..	..	..	211	4	2.24	13,000
Georgia	..	..	..	..	..	..	..	..	67	5	0.01	<100
Germany	..	..	..	..	..	37	22	3,927	15	12	0.08	35,000
Ghana	64	17	27	26	10	..	..	..	214	67	2.38	210,000
Greece	..	9	..	..	..	46	28	4,877	29	3	0.14	7,500
Guatemala	45	14	27	50	64	38	18	646	85	13	0.52	27,000
Guinea	..	13	..	..	37	..	..	..	171	22	2.09	74,000
Guinea-Bissau	74	20	..	..	..	..	..	..	181	4	2.25	12,000
Haiti	64	15	28	32	10	385	36	5.17	190,000
Honduras	14	9	25	39	85	36	11	1,978	96	9	1.46	43,000



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Hungary	..	9	40	27	4,949	47	7	0.04	2,000
India	88	33	..	53	52	70	187	4,854	0.82	4,100,000
Indonesia	64	11	34	42	62	285	1,606	0.05	52,000
Iran, Islamic Rep.	17	10	16	19	94	..	..	..	55	62	0.01	..
Iraq	18	24	12	22	10	40	5	5,751	160	56	0.01	..
Ireland	..	4	..	..	..	29	28	4,013	21	1	0.09	1,700
Israel	..	8	..	..	..	45	30	3,331	7	0	0.07	..
Italy	..	7	..	..	..	38	26	3,101	10	5	0.31	90,000
Jamaica	40	10	10	10	100	43	13	1,446	8	0	0.99	14,000
Japan	..	6	..	..	..	59	15	4,126	29	48	0.01	6,800
Jordan	50	2	5	8	95	..	..	..	11	1	0.02	..
Kazakhstan	27	9	8	16	53	..	..	..	104	27	0.03	2,500
Kenya	35	16	23	34	100	..	..	..	297	106	11.64	1,600,000
Korea, Dem. Rep.	71	..	32	15	5	..	..	..	178	91	0.01	..
Korea, Rep.	..	4	..	..	..	68	..	..	142	90	0.01	3,100
Kuwait	40	6	2	3	..	52	12	1,403	81	3	0.12	..
Kyrgyz Republic	..	6	11	25	27	..	..	..	99	7	0.01	<100
Lao PDR	62	18	40	47	93	62	8	949	167	17	0.04	1,100
Latvia	..	4	..	..	..	67	12	..	82	2	0.01	<100
Lebanon	49	19	3	12	92	..	..	..	26	1	0.09	..
Lesotho	7	11	16	44	73	38	1	..	407	13	8.35	85,000
Libya	..	5	5	15	90	..	..	..	19	2	0.05	..
Lithuania	..	4	..	..	..	52	10	2,509	80	5	0.01	<100
Macedonia, FYR	..	8	..	..	100	..	..	..	47	2	0.01	<100
Madagascar	..	15	40	48	73	..	..	..	205	58	0.12	8,600
Malawi	55	20	30	48	58	..	..	..	404	33	14.92	710,000
Malaysia	56	8	20	..	..	..	..	..	112	30	0.62	68,000
Mali	58	17	27	49	9	..	..	..	292	58	1.67	89,000
Mauritania	24	9	23	44	3	..	..	..	226	13	0.52	6,100
Mauritius	29	..	15	10	0	47	4	..	66	1	0.08	..
Mexico	41	8	..	..	99	38	14	1,940	41	60	0.35	180,000
Moldova	20	7	..	..	..	..	..	..	73	5	0.11	2,500
Mongolia	45	10	9	15	68	40	7	..	205	9	0.01	<100
Morocco	45	4	10	24	..	40	9	2,022	122	28	0.03	..
Mozambique	58	20	26	36	62	..	..	..	255	66	14.17	1,200,000
Myanmar	58	16	43	45	65	58	2	..	171	163	1.79	440,000
Namibia	16	..	26	29	59	..	..	..	527	12	19.94	150,000
Nepal	65	23	57	53	93	69	13	750	211	99	0.24	26,000
Netherlands	..	4	..	..	..	36	29	3,169	10	1	0.17	14,000
New Zealand	..	6	..	..	..	24	22	2,927	5	0	0.07	1,300
Nicaragua	36	15	12	25	86	..	..	..	95	5	0.19	4,100
Niger	41	15	50	41	64	..	..	..	148	32	1.45	65,000
Nigeria	55	16	39	38	98	24	7	1,131	214	442	4.12	2,300,000
Norway	..	5	..	..	..	36	36	..	6	0	0.06	1,300
Oman	54	8	23	23	65	..	..	..	13	0	0.11	..
Pakistan	37	25	38	36	19	27	4	2,354	181	583	0.09	64,000
Panama	..	8	6	10	92	..	..	..	57	2	0.61	9,000
Papua New Guinea	16	23	30	..	..	46	28	..	250	30	0.19	4,500
Paraguay	44	9	..	..	79	24	6	..	73	5	0.13	3,200
Peru	53	11	8	26	93	41	13	..	265	70	0.56	72,000
Philippines	48	11	30	33	15	..	..	..	310	481	0.06	24,000
Poland	..	9	..	..	..	51	29	4,544	44	26	0.06	12,000
Portugal	..	5	..	..	..	38	15	..	55	4	0.69	35,000
Puerto Rico	..	..	..	..	..	..	..	..	10	0	..	..
Romania	31	8	6	8	..	68	32	2,162	121	42	0.01	5,000
Russian Federation	30	..	3	13	30	67	30	2,256	106	241	0.05	40,000



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Rwanda	..	17	29	49	95	276	17	12.75	370,000
Saudi Arabia	53	..	3,800	46	14	0.01	..
Senegal	26	..	22	23	9	223	33	1.77	75,000
Sierra Leone	31	..	..	..	75	..	..	..	315	23	3.17	68,000
Singapore	..	..	..	..	..	32	3	4,250	48	2	0.15	3,100
Slovak Republic	..	6	..	..	..	43	26	2,973	35	2	0.01	<100
Slovenia	..	6	..	..	..	35	23	..	30	1	0.01	<100
South Africa	37	..	9	23	40	52	17	2,276	394	266	12.91	2,900,000
Spain	..	1	..	..	..	48	25	3,384	61	23	0.57	120,000
Sri Lanka	39	18	38	24	47	55	1	786	48	14	0.07	6,900
Sudan	36	15	34	34	0	..	..	..	180	112	0.99	..
Sweden	..	5	..	..	..	22	24	2,641	5	0	0.07	3,000
Switzerland	..	5	..	..	..	36	26	4,618	11	1	0.32	12,000
Syrian Arab Republic	..	7	13	21	40	..	..	..	75	17	0.01	..
Tajikistan	50	8	..	..	20	..	..	..	87	9	0.01	<100
Tanzania	59	14	31	43	74	..	..	..	307	124	9.42	1,400,000
Thailand	57	7	..	..	50	49	4	2,140	142	180	2.23	780,000
Togo	48	20	25	22	73	65	14	..	353	19	8.52	170,000
Trinidad and Tobago	53	10	..	..	..	..	..	..	11	0	0.94	6,800
Tunisia	38	16	9	23	98	..	..	..	40	6	0.04	..
Turkey	74	8	10	21	18	63	24	2,319	41	42	0.01	..
Turkmenistan	..	5	..	..	0	27	1	..	74	5	0.01	<100
Uganda	30	..	26	38	69	..	..	..	312	94	9.51	930,000
Ukraine	..	8	..	..	4	57	22	2,471	61	49	0.43	110,000
United Arab Emirates	..	8	7	..	..	..	..	..	21	1	0.18	..
United Kingdom	..	6	..	..	..	28	26	3,706	18	11	0.09	25,000
United States	..	8	1	2	..	28	23	4,938	7	15	0.76	820,000
Uruguay	20	8	4	10	..	41	27	..	31	1	0.33	5,200
Uzbekistan	..	6	19	31	0	..	..	..	81	29	0.01	<100
Venezuela, RB	29	9	5	15	65	29	12	1,699	42	11	0.69	..
Vietnam	52	17	40	36	65	73	4	730	189	221	0.22	88,000
West Bank and Gaza	..	..	..	..	..	..	..	..	26	1	..	..
Yemen, Rep.	..	19	46	52	39	..	..	..	111	31	0.01	..
Yugoslavia, FR (Serb./Mont.)	..	..	2	7	70	..	..	..	51	8	0.10	..
Zambia	34	13	24	42	78	..	..	..	576	61	19.07	770,000
Zimbabwe	..	14	16	21	80	36	15	..	543	74	25.84	1,500,000
World	55 w	17 w	30 w	36 w	.. w	.. w	.. w		136 w	16,146 t	0.95 w	
Low income	62	21	36	42	66	..	..		180		1.22	
Excl. China & India	51	6	37	42	68	..	..		241		2.98	
Middle income	37	8	12	19	58	50	21		101		0.71	
Lower middle income	35	9	14	22	59	..	..		126		0.92	
Upper middle income	40	8	7	12	46	46	22		64		0.41	
Low & middle income	55	18	31	37	82	..	..		157		1.06	
East Asia & Pacific	54	6	22	33	66	..	..		151		0.20	
Europe & Central Asia	39	7	8	18	72	60	27		75		0.08	
Latin America & Carib.	34	8	8	16	23	39	20		81		0.59	
Middle East & N. Africa	29	10	15	24	88	..	..		67		0.03	
South Asia	79	33	51	50	50	..	..		193		0.66	
Sub-Saharan Africa	45	..	33	40	64	..	..		267		7.28	
High income	..	7	60	37	23		18		0.36	
Europe EMU	..	5	39	24		22		0.28	

a. Data are for the most recent year available.

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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 a number of 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. Even when intentions are good, reporting is based on definitions that may vary widely across countries or over time. 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 and statistical standards.

Adequate quantities of micronutrients (vitamins and minerals) are essential for healthy growth and development. Studies indicate that more people are deficient in iron (anemic) than any other micronutrient, and most are women of reproductive age. Anemia during pregnancy can harm both the mother and the fetus, causing loss of the baby, premature birth, or low birthweight. Estimates of the prevalence of anemia among pregnant women are generally drawn from clinical data, which suffer from two weaknesses: the sample is based on those who seek care and is therefore not random, and private clinics or hospitals may not be part of the reporting network.

Low birthweight, which is associated with maternal malnutrition, raises the risk of infant mortality and stunts growth in infancy and childhood. Estimates of low-birthweight infants are drawn mostly from hospital records. But 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.

Estimates of child malnutrition, based on both weight for age (underweight) and height for age (stunting), are from national survey data. The proportion of children 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.

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, *The State of the World's Children 1999*).

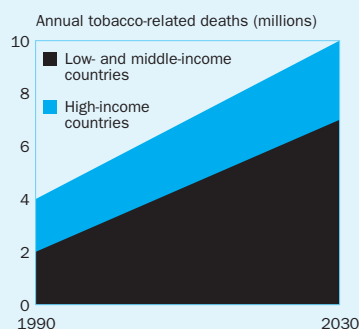
Data on smoking are obtained through surveys. Because they give a one-time estimate of the prevalence of smoking with no information on intensity or duration, they should be interpreted with caution.

Tuberculosis is the major cause of death from a single infectious agent among adults in developing countries (WHO 1999a). In industrial 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.

Adult HIV prevalence rates reflect the rate of HIV infection for each country's population. Estimates of HIV prevalence among adults and of the total number of people currently infected are based on plausible extrapolations from surveys of smaller, nonrepresentative groups.

Figure 2.17

Developing countries will see a rapidly growing health impact from smoking



Source: WHO 1999b.

By the mid-1990s one in three adults were smokers (1.1 billion worldwide). The prevalence of smoking has been declining in high-income countries, but it has been increasing in many low- and middle-income 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 developing a fatal disease, the health impact in developing countries will increase rapidly in the next few decades.

Definitions

- **Prevalence of anemia**, or iron deficiency, refers to the percentage of pregnant women with hemoglobin levels less than 11 grams per deciliter.
- **Low-birthweight babies** are newborns weighing less than 2,500 grams, with the measurement taken within the first hours of life, before significant postnatal weight loss has occurred.
- **Prevalence of child malnutrition** is the percentage of children under five whose weight for age and height for age are less than minus two standard deviations from the median for the international reference population aged 0–59 months. For children up to two years of age, height is measured by recumbent length. For older children, height is measured by stature while standing. The reference population, adopted by the WHO in 1983, is based on children from the United States, who are assumed to be well nourished.
- **Consumption of iodized salt** refers to the percentage of households that use edible salt fortified with iodine.
- **Prevalence of smoking** is the percentage of men and women over 15 who smoke cigarettes.
- **Cigarette consumption** shows the number of cigarettes consumed per smoker in a year.
- **Incidence of tuberculosis** is the estimated number of new tuberculosis cases (pulmonary, smear positive, extrapulmonary).
- **Prevalence of tuberculosis** refers to the number of people suffering from tuberculosis in 1997.
- **Prevalence of HIV** refers to the percentage of people aged 15–49 who are infected with HIV.
- **People infected with HIV** include all estimated cases, regardless of age.

Data sources

The data presented here are drawn from a variety of sources, including the United Nations Administrative Committee on Coordination, Subcommittee on Nutrition's *Update on the Nutrition Situation*; the WHO's *World Health Statistics Annual*, *Global Tuberculosis Control Report 1999*, and *Tobacco or Health: A Global Status Report, 1997*; UNICEF's *State of the World's Children 1999*; the WHO and UNICEF's *Low Birth Weight: A Tabulation of Available Information* (1992); and UNAIDS and the WHO's *Report on the Global HIV/AIDS Epidemic* (1998).