

C *hapter 8*

Health

Data Table 8.1

Nutrition, 1971–96

Sources: United Nations Children's Fund, United Nations Statistical Division, and the World Health Organization

	Percentage of Low-Birthweight Infants 1990-94 (a)	Percentage of Children Under 5 (1990-96) (a) Suffering from			Daily Per Capita Calorie Supply as a Percentage of Total Requirements 1988-90 (a)	Percentage of Pregnant Women Aged 15-49 With Anemia	Year of Anemia Data	Percentage of Children Aged 6-11 with Goiter 1971-91 (a)	Percentage of Households Consuming Iodized Salt 1992-96 (a)	Percentage of Children Under 5 with Vitamin A Deficiency 1971-95 (a)
		Under-weight	Wasting	Stunting						
WORLD										
AFRICA										
Algeria	9	13	9	18	123	X		9	92	X
Angola	19	X	X	X	80	X		7 g	0	3
Benin	X	X	X	X	104	X		24	35	8
Botswana	8	15	b	44	97	X		8	27	X
Burkina Faso	21	30	13	29	94	X		16	22	74
Burundi	X	37	9	43	84	X		42	80	X
Cameroon	13	14	3	24	95	X		26	86	20
Central African Rep	15	27	7	34	82	X		63	28	X
Chad	X	X	X	X	73	X		15 g	31	5
Congo, Dem Rep	15	34	10	45	96	X		9 g	12	X
Congo, Rep	16	24	b	4	103	X		8 g	X	26
Cote d'Ivoire	14	24	8	24	111	X		6 g	0	47
Egypt	10	9	3	24	132	X		5	90	X
Equatorial Guinea	X	X	X	X	X	X		10 g	X	X
Eritrea	13	41	10	66	X	X		X	80	X
Ethiopia	16	48	8	64	73	X		22	0	56
Gabon	X	X	X	X	104	X		5 g	X	X
Gambia, The	X	X	X	X	X	X		20 g	0	X
Ghana	7	27	11	26	93	X		10 g	0	X
Guinea	21	26	12	32	97	X		19	X	X
Guinea-Bissau	20	23	b	X	97	X		19 g	0	X
Kenya	16	23	8	34	89	X		7 g	100	1
Lesotho	11	21	2	33	93	X		16	X	78
Liberia	X	X	X	X	98	78	1982	c	6 g	X
Libya	X	5	3	15	140	X		6 g	90	X
Madagascar	17	34	7	50	95	X		24	1	X
Malawi	20	30	7	48	88	X		13	58	2
Mali	17	31	b	11	96	50	1987	d	29 g	20
Mauritania	11	23	7	44	106	X		X	3	44
Mauritius	13	16	15	10	128	X		X	0	X
Morocco	9	9	2	23	125	X		20 g	X	X
Mozambique	20	27	5	55	77	58	1986	d	20 g	62
Namibia	16	26	9	28	X	X		35	80	20
Niger	15	36	16	32	95	X		9 g	0	2
Nigeria	16	36	9	43	93	65	1987	d	10 g	83
Rwanda	17	29	4	48	82	X		50	90	1
Senegal	11	20	9	22	98	X		12 g	10	72
Sierra Leone	11	29	9	35	83	X		7 g	75	X
Somalia	16	X	X	X	81	X		7 g	X	2
South Africa	X	9	3	23	128	X		2 g	40	49
Sudan	15	34	13	34	87	X		20 g	X	2
Swaziland	X	X	X	X	X	X		10 g	X	X
Tanzania	14	29	6	47	95	X		37	74	47
Togo	20	24	b	5	99	X		22	0	10
Tunisia	8	9	4	22	131	X		4	X	X
Uganda	X	23	b	2	45	93	X	7 g	50	4
Zambia	13	28	6	53	87	X		51	90	18
Zimbabwe	14	16	6	21	94	X		42	80	1
EUROPE										
Albania	7	X	X	X	107	X		41	X	X
Austria	6	X	X	X	133	X		X	X	X
Belarus, Rep	X	X	X	X	X	X		22	37	X
Belgium	6	X	X	X	149	X		5 g	X	X
Bosnia and Herzegovina	X	X	X	X	X	X		10 g	X	X
Bulgaria	6	X	X	X	148	X		20 g	X	X
Croatia, Rep	X	X	X	X	X	X		25	100	X
Czech Rep	6	X	X	X	X	X		3 g	X	X
Denmark	6	X	X	X	135	X		5 g	X	X
Estonia, Rep	X	X	X	X	X	X		X	X	X
Finland	4	X	X	X	113	X		X	X	X
France	5	X	X	X	143	X		5 g	X	X
Germany	X	X	X	X	X	X		10 g	X	X
Greece	6	X	X	X	151	X		10 g	X	X
Hungary	9	X	X	X	137	X		X	X	X
Iceland	X	X	X	X	X	X		X	X	X
Ireland	4	X	X	X	157	X		X	X	X
Italy	5	X	X	X	139	X		20 g	X	X
Latvia, Rep	X	X	X	X	X	X		X	X	X
Lithuania, Rep	X	X	X	X	X	X		X	X	X
Macedonia, FYR	X	X	X	X	X	X		X	100	X
Moldova, Rep	4	X	X	X	X	X		X	X	X
Netherlands	X	X	X	X	114	X		3 g	X	X
Norway	4	X	X	X	120	X		X	X	X
Poland, Rep	X	X	X	X	131	X		10 g	X	X
Portugal	5	X	X	X	136	X		15 g	X	X
Romania	11	X	X	X	116	X		10 g	X	X
Russian Federation	X	X	X	X	X	X		10 g	30	X
Slovak Rep	X	X	X	X	X	X		X	X	X
Slovenia, Rep	X	X	X	X	X	X		15	X	X
Spain	4	X	X	X	141	9	1985	d,e	10 g	X
Sweden	5	X	X	X	111	X		X	X	X
Switzerland	5	X	X	X	130	X		X	X	X
Ukraine	X	X	X	X	X	X		10 g	4	X
United Kingdom	7	X	X	X	130	12	1990	d,f	X	X
Yugoslavia, Fed Rep	X	X	X	X	X	X		5 g	70	X

	Percentage of Low-Birthweight Infants 1990-94 (a)	Percentage of Children Under 5 (1990-96) (a) Suffering from			Daily Per Capita Calorie Supply as a Percentage of Total Requirements 1988-90 (a)	Percentage of Pregnant Women Aged 15-49 With Anemia	Year of Anemia Data	Percentage of Children Aged 6-11 with Goiter 1971-91 (a)	Percentage of Households Consuming Iodized Salt 1992-96 (a)	Percentage of Children Under 5 with Vitamin A Deficiency 1971-95 (a)
		Under-weight	Wasting	Stunting						
NORTH AMERICA										
Canada	6	X	X	X	122	X		X	X	X
United States	7	X	X	X	138	X		X	X	X
CENTRAL AMERICA										
Belize	X	X	X	X	X	65	1984	X	X	10
Costa Rica	6	2	2	8	121	X		3	91	X
Cuba	9	X	1	b	135	X		10	g	0
Dominican Rep	11	10	1	19	102	X		X		40
El Salvador	11	11	1	23	102	X		25		91
Guatemala	14	27	3	50	103	X		20		93
Haiti	15	28	8	32	89	X		4		10
Honduras	9	18	2	40	98	X		9		85
Jamaica	10	10	4	6	114	62	1982	X		100
Mexico	8	14	b	6	131	X		15	g	87
Nicaragua	15	12	2	24	99	X		4		79
Panama	9	7	1	9	98	X		13		92
Trinidad and Tobago	10	7	b	4	114	X		X		X
SOUTH AMERICA										
Argentina	7	X	X	X	131	X		8		90
Bolivia	12	16	4	28	84	X		21		92
Brazil	11	7	b	2	114	X		14		79
Chile	5	1	0	3	102	X		9		90
Colombia	10	8	1	15	106	X		10	g	90
Ecuador	13	17	b	2	105	X		10	g	90
Guyana	X	X	X	X	X	58	1986	X		X
Paraguay	5	4	0	17	116	X		49		64
Peru	11	11	1	37	87	X		36		90
Suriname	X	X	X	X	X	X		X		X
Uruguay	8	7	b	X	101	X		X		X
Venezuela	9	6	b	2	99	52	1987	d	11	65
ASIA										
Afghanistan, Islamic State	20	X	X	X	72	X		20	g	X
Armenia, Rep	X	X	X	X	X	X		10	g	X
Azerbaijan	X	X	X	X	X	X		20	g	X
Bangladesh	50	67	17	63	88	X		11		44
Bhutan	X	38	b	4	128	X		25		96
Cambodia	X	40	8	38	96	X		15	g	0
China	9	16	4	32	112	X		9		51
Georgia	X	X	X	X	X	X		20	g	X
India	33	53	18	52	101	88	1985-86	9	g	67
Indonesia	14	35	X	X	121	74	1986	28		50
Iran, Islamic Rep	9	16	7	19	125	X		30	g	82
Iraq	15	12	3	22	128	X		7	g	50
Israel	7	X	X	X	125	X		X		X
Japan	7	X	X	X	125	X		X		X
Jordan	7	9	2	16	110	X		X		75
Kazakhstan, Rep	X	X	X	X	X	X		20	g	14
Korea, Dem People's Rep	X	X	X	X	121	X		15		5
Korea, Rep	9	X	X	X	120	X		X		X
Kuwait	7	6	b	3	12	X		X		X
Kyrgyz Rep	X	X	X	X	X	X		20	g	X
Lao People's Dem Rep	18	44	10	48	111	X		25	g	X
Lebanon	10	X	X	X	127	X		15	g	92
Malaysia	8	23	X	X	120	X		20	g	X
Mongolia	6	12	2	26	97	X		7	g	X
Myanmar	16	43	8	45	114	60	1980	18		14
Nepal	X	49	6	63	100	X		44		68
Oman	8	12	X	12	X	X		X		X
Pakistan	25	38	9	50	99	X		32	g	19
Philippines	15	30	8	33	104	48	1987	15		40
Saudi Arabia	7	X	X	X	121	23	1978-82	X		X
Singapore	7	X	X	X	136	X		X		X
Sri Lanka	25	38	16	24	101	X		14		7
Syrian Arab Rep	11	12	8	27	126	X		73		21
Tajikistan, Rep	X	X	X	X	X	X		20	g	20
Thailand	13	26	b	6	103	X		12		50
Turkey	8	10	3	21	127	X		36		31
Turkmenistan, Rep	5	X	X	X	X	X		20	g	0
United Arab Emirates	6	X	X	X	X	X		X		X
Uzbekistan, Rep	X	X	X	X	X	X		18		0
Vietnam	X	X	X	X	X	X		20	g	X
Yemen	19	39	13	39	X	X		32	q	21
OCEANIA										
Australia	6	X	X	X	124	X		X		X
Fiji	X	X	X	X	X	40	1975-82	47	g	X
New Zealand	6	X	X	X	131	X		X		X
Papua New Guinea	23	35	b	X	114	X		30	g	X
Solomon Islands	X	X	X	X	X	30	1989	X		X

Notes: a. Data are for most recent year available, within the range given. b. Data are for years other than noted, differ from the standard definition, or refer to only part of a country. c. Data for Monrovia only. d. Reference year not known; publication year given instead. e. Data for Madrid only. f. Data are for all women. g. Data are estimated from subnational data and total goiter rate prevalence of border regions in neighboring countries.

Data Table 8.2

Mortality, 1975–2020

Sources: United Nations Population Division and United Nations Children's Fund

	Crude Death Rate (per 1,000)			Infant Mortality Rate (a) (per 1,000 live births)			Under-5 Mortality Rate (per 1,000 live births)			Average Annual Change in Under-5 Mortality (percent)		Maternal Mortality Rate (per 100,000 live births)
	1975-80	1995-00	2015-20	1975-80	1995-00	2015-20	1960	1980	1995	1960-80	1980-95	1990
	WORLD	11.0	8.9	8.0	87	57	35	X	X	X	X	X
AFRICA	17.7	12.9	8.4	120	86	55	X	X	X	X	X	X
Algeria	13.4	5.6	4.6	112	44	21	243	145	61	(2.6)	(5.7)	160
Angola	24.4	18.7	11.1	160	124	79	345	261	292	(1.4)	0.7	X
Benin	21.1	12.4	6.9	122	84	46	310	176	142	(2.8)	(1.4)	990
Botswana	11.3	13.0	7.5	76	56	33	170	94	52	(3.0)	(3.9)	250
Burkina Faso	21.9	17.7	10.7	127	97	63	318	218	164	(1.3)	(2.7)	930
Burundi	18.8	17.0	10.8	127	114	78	255	193	176	(1.4)	(0.6)	1,300
Cameroon	17.6	11.9	6.5	102	58	34	264	173	106	(2.1)	(3.3)	550
Central African Rep	20.6	16.4	10.3	122	96	60	294	202	165	(1.9)	(1.4)	700
Chad	23.1	17.3	11.3	154	115	79	325	254	152	(2.3)	(2.0)	1,500
Congo, Dem Rep	17.5	13.5	8.0	117	89	53	286	204	185	(1.7)	(0.6)	870
Congo, Rep	17.4	14.6	8.5	91	90	55	220	125	108	(2.8)	(1.0)	890
Côte d'Ivoire	17.5	13.8	8.7	117	86	54	300	180	150	(2.8)	(0.8)	810
Egypt	14.2	7.1	6.0	131	54	25	258	180	51	(1.8)	(8.4)	170
Equatorial Guinea	22.7	16.2	10.7	149	107	73	316	243	X	X	X	X
Eritrea	18.9	14.7	9.0	130	98	57	X	X	195	(0.6)	(1.9)	1,400
Ethiopia	22.1	16.2	9.4	149	107	65	294	260	195	(0.6)	(1.9)	1,400
Gabon	19.2	14.3	9.3	122	85	47	287	194	148	(2.0)	(1.8)	500
Gambia, The	24.9	17.4	12.3	167	122	85	375	278	110	(2.0)	(5.5)	1,100
Ghana	15.3	10.4	6.9	103	73	43	215	157	130	(1.6)	(1.2)	740
Guinea	25.4	18.4	12.1	167	124	87	337	276	219	(1.0)	(1.5)	1,600
Guinea-Bissau	26.2	20.6	14.0	176	132	94	336	290	227	(0.7)	(1.6)	910
Kenya	15.5	11.3	6.2	88	65	37	202	112	90	(2.9)	(1.5)	650
Lesotho	16.5	10.6	6.6	121	72	37	204	173	154	(0.8)	(0.8)	610
Liberia	18.1	15.3	8.0	167	153	67	288	235	216	(1.0)	(0.6)	560
Libya	12.7	6.9	4.5	107	56	25	269	150	63	(4.1)	(4.2)	220
Madagascar	16.1	9.9	6.0	150	77	42	364	216	164	(2.6)	(1.8)	490
Malawi	24.0	22.4	12.6	177	142	93	365	290	219	(1.1)	(1.9)	560
Mali	24.1	17.1	11.1	191	149	107	400	310	210	(1.3)	(2.6)	1,200
Mauritania	20.0	13.1	8.8	125	92	59	321	249	195	(1.3)	(1.6)	930
Mauritius	6.3	6.5	6.9	38	15	8	84	42	23	(3.4)	(4.1)	120
Morocco	13.0	6.7	5.8	110	51	24	215	145	75	(2.0)	(4.4)	610
Mozambique	20.8	17.5	11.1	160	110	74	331	269	275	(1.0)	0.1	1,500
Namibia	15.1	11.8	7.4	98	60	36	206	114	78	(3.0)	(2.5)	370
Niger	23.8	17.1	10.9	157	114	79	320	320	320	0.0	0.0	X
Nigeria	19.2	13.9	9.2	105	77	51	204	196	191	(0.2)	(0.2)	1,000
Rwanda	20.2	19.7	11.7	133	125	84	191	222	139	0.8	(3.1)	1,300
Senegal	21.7	14.5	9.6	97	62	39	303	221	110	(1.6)	(4.6)	1,200
Sierra Leone	29.0	25.7	16.1	192	169	114	385	301	284	(1.2)	(0.4)	1,800
Somalia	22.7	16.9	10.7	149	112	77	294	246	211	(0.9)	(1.0)	1,600
South Africa	12.4	7.9	6.0	72	48	27	126	91	67	(1.6)	(2.1)	230
Sudan	17.8	11.7	8.4	97	71	45	292	210	115	(1.9)	(3.7)	660
Swaziland	16.0	9.2	5.7	108	65	34	233	151	X	X	X	X
Tanzania	16.4	13.5	8.0	113	80	51	249	202	160	(1.6)	(0.8)	770
Togo	17.4	14.9	8.5	117	86	52	264	175	128	(2.0)	(2.1)	640
Tunisia	10.0	5.9	5.5	88	37	18	244	102	37	(4.4)	(6.7)	170
Uganda	17.6	21.0	10.7	114	113	72	218	181	185	(0.9)	0.2	1,200
Zambia	16.5	18.0	9.3	94	103	55	220	160	203	(1.6)	1.6	940
Zimbabwe	13.1	14.6	8.0	86	68	39	181	125	74	(1.8)	(3.5)	570
EUROPE	10.5	11.5	12.4	22	12	8	X	X	X	X	X	X
Albania	6.4	6.2	7.1	50	32	20	151	57	40	(4.9)	(2.4)	65
Austria	12.4	10.0	10.7	17	6	5	43	17	7	(4.6)	(5.6)	10
Belarus, Rep	9.4	12.1	13.3	22	15	10	X	X	20	X	(3.1)	37
Belgium	11.7	10.5	11.3	14	7	5	35	15	10	(4.3)	(3.0)	10
Bosnia and Herzegovina	6.5	7.3	10.9	36	13	9	X	X	17	(7.0)	(5.4)	X
Bulgaria	10.5	13.3	13.9	22	16	10	70	25	19	(5.1)	(1.8)	27
Croatia, Rep	10.8	11.7	13.4	21	10	7	X	X	14	(7.2)	(3.1)	X
Czech Rep	13.2	12.0	12.3	18	9	6	X	X	10	X	(4.8)	15
Denmark	10.4	11.8	11.8	9	7	5	25	10	7	(4.4)	(2.8)	9
Estonia, Rep	12.1	13.1	13.9	22	12	6	X	X	22	X	(2.1)	41
Finland	9.3	10.2	11.3	9	5	5	28	9	5	(5.9)	(3.6)	11
France	10.3	9.1	10.5	11	7	6	X	X	9	(4.9)	(2.3)	15
Germany	12.2	10.9	12.6	15	6	5	40	16	7	(4.7)	(5.5)	22
Greece	8.8	9.9	12.3	25	8	7	64	23	10	(5.2)	(5.8)	10
Hungary	12.8	14.6	14.5	27	14	9	57	26	14	(3.9)	(4.2)	30
Iceland	6.4	6.8	7.4	9	5	5	22	9	X	X	X	X
Ireland	10.2	8.6	8.9	15	6	5	36	14	7	(4.6)	(4.6)	10
Italy	9.8	9.9	12.4	18	7	6	X	X	8	(5.3)	(5.3)	12
Latvia, Rep	12.4	13.8	14.6	23	16	11	X	X	26	X	(2.2)	40
Lithuania, Rep	9.9	11.6	12.9	22	13	7	X	X	19	X	(2.6)	36
Macedonia, FYR	7.1	7.4	9.3	57	23	13	X	X	31	(4.7)	(5.3)	X
Moldova, Rep	10.6	10.8	10.6	46	26	19	X	X	34	X	(2.4)	60
Netherlands	8.1	8.8	10.3	10	6	5	22	11	8	(3.4)	(2.4)	12
Norway	10.0	10.7	10.3	9	5	5	X	X	8	(3.8)	(2.2)	6
Poland, Rep	9.2	10.7	11.1	23	13	8	70	24	16	(5.3)	(2.7)	19
Portugal	10.3	10.9	11.7	30	8	5	112	31	11	(6.4)	(6.9)	15
Romania	9.7	11.6	12.8	31	24	14	82	36	29	(4.1)	(1.4)	130
Russian Federation	10.3	14.5	14.8	30	19	12	X	X	30	X	(2.4)	75
Slovak Rep	10.4	10.5	10.8	22	12	8	X	X	15	X	(2.7)	X
Slovenia, Rep	10.4	10.7	13.3	17	7	5	X	X	8	(4.6)	(5.2)	13
Spain	8.1	9.4	11.3	16	7	6	57	16	9	(6.2)	(3.7)	7
Sweden	10.9	11.2	10.4	8	5	5	20	9	5	(4.1)	(3.9)	7
Switzerland	9.0	9.1	10.4	10	5	5	27	11	7	(4.5)	(2.7)	6
Ukraine	11.0	13.8	14.4	23	18	10	X	X	24	X	(1.7)	50
United Kingdom	11.9	11.1	11.0	14	6	5	27	14	7	(3.1)	(4.3)	9
Yugoslavia, Fed Rep	9.2	9.7	11.6	38	19	12	X	X	23	(5.0)	(4.3)	X

	Crude Death Rate (per 1,000)			Infant Mortality Rate (a) (per 1,000 live births)			Under-5 Mortality Rate (per 1,000 live births)			Average Annual Change in Under-5 Mortality (percent)	Maternal Mortality Rate (per 100,000 live births)	
	1975-80	1995-00	2015-20	1975-80	1995-00	2015-20	1960	1980	1995	1960-80	1980-95	1990
NORTH AMERICA	8.5	8.6	8.8	14	7	5	X	X	X	X	X	X
Canada	7.2	7.4	8.7	12	6	5	33	13	8	(4.8)	(3.6)	6
United States	8.6	8.7	8.8	14	7	5	30	15	10	(3.3)	(2.8)	12
CENTRAL AMERICA	8.3	5.3	5.5	62	33	22	X	X	X	X	X	X
Belize	6.5	4.3	3.6	45	30	21	X	X	X	X	X	X
Costa Rica	4.8	3.8	4.7	30	12	8	112	29	16	(6.8)	(3.8)	60
Cuba	6.0	7.0	8.9	22	9	6	50	26	10	(3.3)	(6.0)	95
Dominican Rep	8.4	5.3	5.6	84	34	19	152	94	44	(2.4)	(5.0)	110
El Salvador	11.2	6.0	5.6	87	39	25	210	120	40	(2.8)	(7.3)	300
Guatemala	12.0	6.7	5.2	82	40	25	205	136	67	(2.0)	(4.7)	200
Haiti	16.0	12.8	8.8	121	82	51	270	195	124	(1.4)	(3.0)	1,000
Honduras	11.0	5.4	4.8	81	35	21	203	100	38	(3.6)	(6.4)	220
Jamaica	7.4	5.8	5.3	26	12	7	76	39	13	(3.4)	(7.2)	120
Mexico	7.7	5.1	5.6	57	31	21	141	81	32	(2.7)	(6.7)	110
Nicaragua	11.3	5.8	4.8	90	44	28	209	143	60	(1.9)	(5.8)	160
Panama	6.3	5.1	5.8	35	21	13	104	31	20	(6.0)	(2.9)	55
Trinidad and Tobago	7.1	6.0	6.4	32	14	7	73	40	18	(3.0)	(5.3)	90
SOUTH AMERICA	8.9	6.8	6.8	72	36	23	X	X	X	X	X	X
Argentina	8.9	7.9	7.5	39	22	14	68	41	27	(2.5)	(2.8)	100
Bolivia	16.0	9.1	6.4	131	66	33	252	170	105	(2.0)	(3.2)	650
Brazil	9.1	7.1	7.4	79	42	26	181	93	60	(3.3)	(2.9)	220
Chile	7.5	5.6	6.6	45	13	9	138	35	15	(6.9)	(5.6)	65
Colombia	7.6	5.6	5.9	59	24	21	132	59	36	(4.1)	(3.2)	100
Ecuador	9.8	6.0	6.0	82	46	29	180	101	40	(2.9)	(6.2)	150
Guyana	9.2	7.4	7.0	67	58	37	126	88	X	X	X	X
Paraguay	7.8	5.4	4.7	51	39	27	90	61	34	(1.9)	(3.9)	160
Peru	10.9	6.4	6.1	99	45	24	236	130	55	(3.0)	(5.7)	280
Suriname	7.3	5.5	5.4	44	24	12	96	52	X	X	X	X
Uruguay	10.1	10.4	10.3	42	17	14	47	42	21	(0.6)	(4.6)	85
Venezuela	5.8	4.7	5.2	39	21	14	70	42	24	(2.6)	(3.8)	120
ASIA	10.5	7.9	7.4	94	56	32	X	X	X	X	X	X
Afghanistan, Islamic State	24.0	20.8	12.8	183	154	118	360	280	257	(1.3)	(0.6)	1,700
Armenia, Rep	5.9	7.5	9.0	22	25	19	X	X	31	X	(0.6)	50
Azerbaijan	7.0	6.6	7.3	41	33	24	X	X	50	X	(1.1)	22
Bangladesh	18.9	9.7	6.7	137	78	38	247	211	115	(0.8)	(4.0)	850
Bhutan	21.2	13.7	8.0	165	104	56	324	249	189	(1.3)	(1.8)	1,600
Cambodia	40.0	12.2	8.1	263	102	55	217	330	174	2.1	(4.3)	900
China	6.7	7.1	8.2	52	38	20	209	65	47	(5.9)	(2.1)	95
Georgia	8.7	9.5	10.7	36	23	18	X	X	26	X	(2.9)	33
India	13.9	9.0	7.6	129	72	45	236	177	115	(1.4)	(2.9)	570
Indonesia	15.1	7.6	7.0	105	48	23	216	128	75	(2.6)	(3.5)	650
Iran, Islamic Rep	11.8	6.0	4.4	100	39	20	233	126	40	(3.1)	(7.6)	120
Iraq	8.8	8.5	4.5	84	95	23	171	83	71	(3.6)	(1.0)	310
Israel	6.8	6.4	6.5	18	7	5	39	19	9	(3.6)	(5.3)	7
Japan	6.1	8.2	12.1	9	4	4	40	11	6	(6.6)	(3.5)	18
Jordan	9.6	4.8	3.7	65	30	15	149	66	25	(4.1)	(6.4)	150
Kazakhstan, Rep	8.8	8.5	8.7	45	34	24	X	X	47	X	(2.8)	80
Korea, Dem People's Rep	6.2	5.5	6.7	38	22	13	120	43	30	(5.1)	(2.5)	70
Korea, Rep	7.1	6.4	8.4	30	9	6	124	18	9	(9.8)	(4.4)	130
Kuwait	4.2	2.2	4.0	34	14	7	X	X	14	(6.6)	(6.2)	29
Kyrgyz Rep	9.6	7.4	6.5	55	39	27	X	X	54	X	(3.4)	110
Lao People's Dem Rep	20.7	13.5	7.5	135	86	49	233	190	134	(1.0)	(2.3)	650
Lebanon	8.7	6.4	6.0	48	29	17	91	62	40	(3.8)	0.0	300
Malaysia	7.2	4.8	5.1	34	11	7	105	42	13	(4.6)	(7.8)	80
Mongolia	11.4	6.8	5.2	88	52	33	185	112	74	(2.5)	(2.8)	65
Myanmar	14.9	9.8	7.1	114	78	33	237	146	150	(2.4)	0.2	580
Nepal	18.4	11.0	6.6	142	82	40	279	177	114	(2.4)	(3.0)	1,500
Oman	12.4	4.3	3.2	95	25	12	300	95	25	(5.7)	(8.9)	190
Pakistan	15.4	7.8	5.2	130	74	45	221	151	137	(1.9)	(0.6)	340
Philippines	9.0	5.7	5.3	62	35	18	102	70	53	(1.9)	(1.8)	280
Saudi Arabia	10.7	4.2	3.7	75	23	10	X	X	34	(5.9)	(6.5)	130
Singapore	5.1	5.0	7.1	13	5	5	40	13	6	(5.6)	(5.7)	10
Sri Lanka	7.1	5.9	6.6	44	15	8	130	52	19	(4.6)	(6.7)	140
Syrian Arab Rep	8.9	4.9	4.0	67	33	17	201	73	36	(5.1)	(4.7)	180
Tajikistan, Rep	8.9	6.9	5.5	69	56	38	X	X	79	X	(3.1)	130
Thailand	8.3	6.6	7.4	56	30	13	146	61	32	(4.4)	(4.2)	200
Turkey	10.2	6.5	6.7	120	44	22	217	141	50	(2.2)	(6.9)	180
Turkmenistan, Rep	9.6	7.6	6.0	73	57	38	X	X	85	X	(2.6)	55
United Arab Emirates	7.4	2.9	6.0	38	15	6	240	64	19	(6.6)	(8.1)	26
Uzbekistan, Rep	8.5	6.6	5.7	58	43	30	X	X	62	X	(3.1)	55
Vietnam	11.4	7.0	5.8	82	37	21	219	105	X	X	X	X
Yemen	20.7	10.4	5.2	158	80	38	X	X	110	(2.4)	(4.3)	1,400
OCEANIA	8.7	7.7	7.6	35	24	15	X	X	X	X	X	X
Australia	7.7	7.5	8.1	13	6	5	24	13	8	(3.0)	(3.5)	9
Fiji	5.8	4.6	5.5	37	20	10	97	42	X	X	X	X
New Zealand	8.2	7.9	8.0	14	7	5	26	16	9	(2.5)	(4.0)	25
Papua New Guinea	15.0	9.9	7.0	77	61	37	248	95	95	(4.8)	0.0	930
Solomon Islands	7.4	4.1	3.4	47	23	12	X	X	X	X	X	X
DEVELOPING	11.5	8.5	7.4	98	62	38	X	X	X	X	X	X
DEVELOPED	9.5	10.3	11.2	18	9	7	X	X	X	X	X	X

Note: a. Under 1 year of age.

Data Table 8.3

Reported Cases of Infectious Diseases per 100,000 Population, 1985–95

Source: World Health Organization

	Cases per 100,000 Population														
	Tuberculosis			Measles			Malaria			Polio			Cholera		
	1985	1990	1995	1985	1990	1995	1988	1991	1994	1980	1988	1995	1987	1991	1995
WORLD	X	X	X	58	25	11	101	104	620	1.17	0.68	0.11	0.97	11.08	3.71
AFRICA	70	87	83	224	79	47	X	X	3,945	2.34	0.87	0.22	5.41	23.72	9.88
Algeria	63	47	49 ^a	92	7	29	X	X	1	0.62	0.04	0.01	6.52	X	X
Angola	108	112	72	285	315	6	X	X	6,377	0.46	0.23	1.41	191.82	90.28	30.46
Benin	51	45	44	328	72 ^e	194	X	X	10,398	4.48	0.70	0.13	X	154.93	3.75
Botswana	251	230	380	156	96	16	X	X	2,089	0.11	0.00	0.00	X	X	X
Burkina Faso	58	17	14	222	108	54	X	X	4,637	2.10	0.24	0.11	X	5.75	13.85
Burundi	49	83	62 ^a	774	242	244	X	X	14,022	1.04	0.23	0.16	10.36	0.05	37.88
Cameroon	34	51	57 ^a	473	184	19	X	X	1,065	2.95	1.13	0.06	0.89	34.10	4.66
Central African Rep	20	73	101	94	44	28	X	X	2,562	0.91	1.93	0.12	X	X	X
Chad	30	47	50	128	132	10	X	X	X	0.00	0.00	3.03	X	244.68	X
Congo, Dem Rep	15 ^b	55 ^c	91	62	12	12	X	X	X	X	X	X	3.41	10.45	1.22
Congo, Rep	138	26	140	395	162	84	X	X	1,428	8.15	0.05	0.00	X	X	X
Côte d'Ivoire	58	65	84	90	152	219	X	X	X	0.57	0.30	0.85	X	5.00	36.46
Egypt	3	4	37	11	2	3	X	X	X	4.59	1.02	0.11	X	X	X
Equatorial Guinea	5	74	77	149	9	11	X	X	1,241	0.00	0.00	0.00	X	X	X
Eritrea	X	120	608	X	X	6	X	X	X	0.00	0.00	0.32	X	X	X
Ethiopia	174	187	26	162	4	1	X	X	X	0.64	0.29	0.35	X	X	X
Gabon	87	80	84	650	79	X	X	X	X	10.13	0.34	0.84	X	X	X
Gambia, The	X	X	92	219	0	12	X	X	X	0.16	0.59	0.00	X	X	1.35
Ghana	25	43	24	503	215	232	X	X	X	1.34	0.42	0.20	X	85.16	27.10
Guinea	26	35	52	60	222	15	X	X	8,567	0.72	4.76	0.37	X	X	88.53
Guinea-Bissau	61	121	163	152	27	49	X	X	X	0.38	0.54	0.00	269.65	X	11.13
Kenya	53	50	100	561	328	12	X	X	23,068	2.74	7.67	0.04	1.20	X	5.68
Lesotho	187	141	236	471	123	15	X	X	X	2.63	0.00	0.00	X	X	X
Liberia	19	37 ^d	46	122	72 ^e	3	X	X	X	5.22	0.24	0.00	1.37	5.28	161.09
Libya	9	10	27	111	20	22 ^a	X	X	1	0.99	0.24	0.00	X	X	0.41
Madagascar	30	50	80	655	114	79	X	X	X	0.75	0.36	0.00	X	X	X
Malawi	74	132	172	1,747	0	44	X	X	49,410	1.13	0.13	0.00	X	85.09	0.01
Mali	20	32	29	376	15	31	X	X	X	3.41	1.40	0.24	4.19	X	18.97
Mauritania	249	264	169	856	69	9	X	X	X	10.25	0.89	0.22	84.93	X	X
Mauritius	11	11	14	0	0	1	X	X	3	0.00	0.00	0.00	X	X	X
Morocco	123	114	110	19	7	9	X	X	X	0.27	0.00	0.00	X	X	X
Mozambique	42	112	112	122	127	24	X	X	X	0.54	0.05	0.00	X	53.60	X
Namibia	411	198	100	X	350 ^d	112	X	X	27,209	0.00	0.00	0.98	X	X	X
Niger	11	67	22	979	265	743	X	X	9,238	5.57	0.45	0.44	X	40.52	2.88
Nigeria	18	21	12	195	120	11	X	X	X	1.13	1.61	0.39	1.47	60.03	0.95
Rwanda	22	91	38	277	129	541	X	X	X	0.46	0.13	0.02	1.53	10.18	0.06
Senegal	17	68	91	104 ^c	68	73 ^a	X	X	X	2.49	0.26	0.01	46.69	X	38.76
Sierra Leone	24	16	43	93	21	8	X	X	X	0.34	0.10	0.00	14.81	X	245.17
Somalia	35	15 ^e	31	2	12	e	X	X	X	0.00	0.65	0.00	X	X	97.51
South Africa	180	217	210	54	29	3	X	X	25	0.38	0.49	0.00	0.11	0.03	X
Sudan	7	1	39	315	58	3	X	X	X	22.22	0.40	0.08	X	X	X
Swaziland	319 ^f	193 ^e	240	501	197	20	X	X	X	34.29	0.28	0.00	X	X	X
Tanzania	63	87	134	211	59	11	X	X	27,343	0.49	0.02	0.07	8.17	21.53	5.66
Togo	25	37	37	850	129	150	X	X	8,274	6.81	0.75	0.12	X	65.97	1.59
Tunisia	35	25	27	65	7	8	X	X	X	0.23	0.03	0.00	X	X	X
Uganda	9 ^b	82	120	X	16	217	X	X	X	0.28	0.10	0.51	0.91	1.62	2.73
Zambia	98	281	135	796	93	106	X	X	44,498	4.81	1.23	0.07	X	178.02	X
Zimbabwe	57	92	274	266	139	50	X	X	2,964	0.45	0.04	0.01	X	X	X
EUROPE	X	X	X	50	18	10	X	X	1	0.03	0.00	0.02	X	0.04	0.13
Albania	31	20	19	0	13	0	X	X	X	0.04	0.00	0.00	X	X	X
Austria	19	20	18	X	X	X	X	X	X	0.01	0.00	0.00	X	X	X
Belarus, Rep	49	30	48	X	13 ^c	15	X	X	X	0.00	0.00	0.00	X	X	0.03
Belgium	20	16	14	X	817 ^e	0	X	X	X	0.01	0.00	0.00	X	X	X
Bosnia and Herzegovina	X	14	62	X	4 ^c	4	X	X	X	0.00	0.00	0.00	X	X	X
Bulgaria	29	25	37	11	2	2	X	X	X	0.17	0.00	0.00	X	X	X
Croatia, Rep	81	57	47	X	3 ^c	15	X	X	X	0.00	0.00	0.00	X	X	X
Czech Rep	30	19	18	X	8 ^c	0	X	X	X	0.00	0.00	0.00	X	X	X
Denmark	6	7	9	258	4	0	X	X	X	0.00	0.00	0.00	X	X	0.06
Estonia, Rep	35	21	41	X	8 ^c	1	X	X	X	0.00	0.00	0.00	X	X	X
Finland	37	15	13	13	0	0	X	X	X	0.00	0.00	0.00	X	X	0.02
France	20	16	15	1	254 ^c	X	X	X	X	0.02	0.00	0.00	0.01	0.01	0.01
Germany	26	18	15	X	88 ^c	X	X	X	X	0.01	0.00	0.00	X	X	X
Greece	16	9	X	15	2	1	X	X	X	0.00	0.00	0.00	X	X	X
Hungary	46	35	43	0	0	0	X	X	X	0.01	0.00	0.00	X	X	X
Iceland	5	7	4	155	5	0	X	X	X	0.00	0.00	0.00	X	X	X
Ireland	23	18	X	279	16	7	X	X	X	0.03	0.00	0.00	X	X	X
Italy	7	7	10	132	9	65	X	X	1	0.00	0.00	0.00	X	X	X
Latvia, Rep	47	34	60	X	0 ^c	0	X	X	X	0.00	0.00	0.00	X	X	X
Lithuania, Rep	41	40	64	X	4 ^c	5	X	X	X	0.00	0.00	0.00	X	X	X
Macedonia, FYR	X	X	36	X	9 ^c	10	X	X	112	0.00	0.00	0.00	X	X	X
Moldova, Rep	65	40	66	X	14 ^c	26	X	X	X	X	X	X	X	X	5.41
Netherlands	9	9	10	0	0	1	X	X	2	0.00	0.00	0.00	X	X	0.06
Norway	9	7	5	32	2	0	X	X	X	0.00	0.00	0.00	0.02	X	0.02
Poland, Rep	58	42	42	96	148	2	X	X	X	0.01	0.00	0.00	X	X	X
Portugal	70	63	57	X	4	2	X	X	X	0.00	0.00	0.00	X	X	0.01
Romania	56	70	102	22	20	10	X	X	X	0.56	0.00	0.00	X	0.98	0.52
Russian Federation	45	34	58	X	14 ^c	4	X	X	0	0.00	0.00	0.10	X	X	0.01
Slovak Rep	39	27	0	X	4 ^c	0	X	X	X	0.00	0.00	0.00	X	X	X
Slovenia, Rep	49	38	27	X	2 ^c	21	X	X	X	0.00	0.00	0.00	X	X	X
Spain	28	19	22	210	55	22	X	X	X	0.05	0.00	0.00	0.01	X	0.02
Sweden	8	7	6	4	0	0	X	X	X	0.00	0.00	0.00	0.01	X	0.02
Switzerland	15	19	12	X	34	0	X	X	X	0.02	0.00	0.00	X	X	0.03
Ukraine	47	32	42	X	10 ^c	4	X	X	X	0.00	0.00	0.00	X	0.14	1.01
United Kingdom	12	10	11	185	185	13	X	X	3	0.01	0.00	0.00	X	0.01	0.02
Yugoslavia, Fed Rep	63	41</													

	Cases per 100,000 Population														
	Tuberculosis			Measles			Malaria			Polio			Cholera		
	1985	1990	1995	1985	1990	1995	1988	1991	1994	1980	1988	1995	1987	1991	1995
NORTH AMERICA	X	X	X	2	10	1	X	X	1	0.00	0.00	0.00	X	0.01	0.01
Canada	8	7	7	11	3	8	X	X	1	0.00	0.00	0.00	X	0.01	0.02
United States	9	10	9	1	11	0	X	X	0	0.00	0.00	0.00	X	0.01	0.01
CENTRAL AMERICA	X	X	X	53	107	0	253	198	138	1.12	0.08	0.00	X	7.47	33.13
Belize	15	30	28	4	33	2	1,531	1,728	4,787	2.05	0.00	0.00	X	X	8.92
Costa Rica	14	8	9	0	3	1	35	105	1	0.00	0.00	0.00	X	X	0.70
Cuba	7	5	15	38	0	0	X	X	0	0.00	0.00	0.00	X	X	X
Dominican Rep	37	37	52	69	49	0	16	5	22	2.58	0.01	0.00	X	X	X
El Salvador	31	46	42	30	22	0	188	115	51	1.21	0.16	0.00	X	18.42	51.62
Guatemala	83	41	32	29	96	0	605	611	214	1.10	0.44	0.00	X	38.81	75.04
Haiti	85	155	c	36	22	X	198	387	331	0.37	0.14	0.00	X	X	X
Honduras	81	75	88	155	171	0	648	1,459	949	0.08	0.13	0.00	X	0.22	83.43
Jamaica	6	5	4	3	154	1	X	X	0	0.00	0.00	0.00	X	X	X
Mexico	20	17	12	31	83	0	145	31	14	1.01	0.03	0.00	X	3.17	18.03
Nicaragua	81	80	64	30	537	0	1,348	755	1,035	0.75	0.00	0.00	X	0.03	214.04
Panama	28	35	50	198	79	1	19	46	26	0.00	0.00	0.00	X	48.20	X
Trinidad and Tobago	10	10	14	301	41	0	X	X	2	0.00	0.00	0.00	X	X	X
SOUTH AMERICA	X	X	X	52	34	1	304	337	300	0.71	0.08	0.00	X	128.49	14.13
Argentina	53	38	39	30	6	2	2	2	3	0.09	0.00	0.00	X	X	0.54
Bolivia	130	170	130	4	15	1	354	283	480	0.75	0.02	0.00	X	3.06	30.93
Brazil	62	50	54	56	42	0	391	409	360	1.06	0.07	0.00	X	1.04	10.01
Chile	55	47	a	139	15	0	X	X	X	0.00	0.00	0.00	X	0.31	X
Colombia	41	39	28	19	54	1	322	554	362	0.49	0.11	0.00	X	36.03	5.37
Ecuador	53	80	69	13	16	8	547	566	267	0.14	0.10	0.00	X	441.06	18.85
Guyana	27	21	35	11	0	0	4,467	5,282	4,819	0.00	0.00	0.00	X	X	X
Paraguay	52	50	36	18	33	2	73	69	12	0.22	0.03	0.00	X	X	X
Peru	125	176	191	40	7	2	156	153	528	1.05	0.26	0.00	X	1,468.59	95.18
Suriname	13	21	13	a	29	7	688	367	1,115	0.00	0.00	0.00	X	X	X
Uruguay	40	29	20	5	4	0	X	X	X	0.00	0.00	0.00	X	X	X
Venezuela	28	28	25	125	51	1	247	214	64	0.07	0.09	0.00	X	0.08	X
ASIA	X	X	X	35	13	5	125	127	155	1.44	0.96	0.13	0.58	1.54	1.55
Afghanistan, Islamic State	74	29	X	100	11	X	2,675	1,934	X	5.48	2.17	0.00	X	X	101.23
Armenia, Rep	24	18	28	X	5	c	X	X	X	0.00	0.00	0.08	X	X	X
Azerbaijan	57	37	19	X	85	c	6	X	9	0.00	0.00	0.07	X	X	X
Bangladesh	42	45	35	12	2	4	32	57	143	0.07	0.51	0.04	X	X	X
Bhutan	78	75	79	56	11	7	719	1,353	2,238	0.46	2.29	0.00	X	25.24	1.41
Cambodia	134	74	142	600	28	20	X	1,291	870	9.10	1.27	1.30	X	8.59	41.80
China	21	33	29	39	7	4	8	7	3	0.75	0.06	0.01	X	0.02	0.85
Georgia	35	28	30	0	0	2	X	X	X	0.00	0.00	0.00	X	X	X
India	152	179	130	21	11	4	227	244	243	2.75	2.97	0.35	1.17	0.81	0.36
Indonesia	11	41	16	6	50	11	18	8	X	0.12	0.44	0.01	0.38	3.34	X
Iran, Islamic Rep	18	16	30	42	9	0	97	13	77	0.20	0.07	0.15	0.56	3.07	3.18
Iraq	42	81	132	145	17	38	40	X	500	7.67	0.41	0.17	X	4.74	4.08
Israel	9	5	7	a	71	5	0	X	X	0.28	0.00	0.00	0.05	X	X
Japan	48	42	34	2	3	X	X	X	X	0.00	0.00	0.00	0.03	0.07	0.26
Jordan	20	10	9	15	7	6	X	X	X	0.51	0.05	0.00	X	X	X
Kazakhstan, Rep	79	66	66	X	20	c	2	X	X	0.00	0.00	0.01	X	X	0.05
Korea, Dem People's Rep	X	X	X	0	0	0	X	X	X	0.00	0.04	0.03	X	X	X
Korea, Rep	214	149	74	3	8	0	X	X	0	0.04	0.00	0.00	X	0.26	0.16
Kuwait	42	13	22	120	3	1	X	X	50	2.33	0.00	0.00	X	X	X
Kyrgyz Rep	52	53	0	X	20	c	0	X	X	0.00	0.00	0.00	X	X	X
Lao People's Dem Rep	118	43	25	42	52	65	957	918	1,111	36.38	3.91	0.16	X	X	27.96
Lebanon	73	34	c	33	X	0	X	X	X	0.00	0.00	0.00	X	X	X
Malaysia	67	65	60	33	3	3	299	237	299	0.04	0.00	0.00	3.53	2.76	10.97
Mongolia	157	72	125	28	13	23	X	X	X	0.00	0.05	0.00	X	X	X
Myanmar	28	30	39	44	19	3	238	302	1,582	0.72	0.15	0.04	X	2.19	2.87
Nepal	0	53	90	6	1	22	133	151	45	0.36	0.05	0.04	X	158.97	0.73
Oman	62	28	10	292	71	3	1,507	1,034	341	3.27	7.22	0.00	X	X	X
Pakistan	109	129	7	26	18	1	52	54	82	3.49	0.83	0.37	X	X	X
Philippines	276	522	348	115	71	6	266	139	345	0.89	0.59	0.06	X	X	1.25
Saudi Arabia	31	15	14	a	145	34	14	66	60	56	2.68	0.02	0.02	X	X
Singapore	76	59	66	5	6	6	X	X	8	0.04	0.00	0.00	2.22	1.10	0.42
Sri Lanka	37	39	32	55	23	1	2,297	2,322	1,540	1.78	0.00	0.00	X	0.41	X
Syrian Arab Rep	21	49	30	4	4	10	1	0	4	3.58	0.29	0.03	X	X	X
Tajikistan, Rep	55	47	33	X	23	c	3	X	X	0.00	0.00	0.00	X	X	X
Thailand	152	84	77	63	53	19	648	353	177	0.64	0.02	0.00	11.99	X	X
Turkey	61	44	37	29	20	22	30	21	141	0.41	0.00	0.05	X	X	X
Turkmenistan, Rep	50	64	47	X	36	c	10	X	X	0.00	0.00	0.20	X	X	X
United Arab Emirates	41	17	23	a	155	62	30	171	174	4.73	0.50	0.00	X	X	X
Uzbekistan, Rep	48	46	43	X	18	c	1	X	X	0.00	0.00	0.00	X	X	X
Vietnam	78	75	47	137	12	8	237	489	1,189	3.24	1.31	0.19	0.30	0.08	8.25
Yemen	75	39	99	289	240	e	1	106	104	260	0.00	0.00	0.30	X	X
OCEANIA	X	X	X	32	22	19	682	914	2,742	0.11	0.07	0.00	X	X	0.02
Australia	7	6	6	0	5	7	X	X	4	0.00	0.00	0.00	0.01	X	0.03
Fiji	33	31	26	22	4	53	X	X	X	0.00	0.00	0.00	X	X	X
New Zealand	11	10	9	0	0	0	X	X	X	0.00	0.00	0.00	X	X	0.06
Papua New Guinea	100	65	187	165	119	87	2,285	2,204	14,974	0.71	0.49	0.02	X	X	X
Solomon Islands	140	119	93	1	107	0	21,369	42,731	35,980	0.00	0.00	0.00	X	X	X

Notes: a. Data are for 1994. b. Data are for 1986. c. Data are for 1991. d. Data are for 1988. e. Data are for 1989. f. Data are for 1983.

Data Table 8.4

Health Care, 1971–96

Sources: United Nations Children's Fund, the World Health Organization, and the World Bank

	Percentage of Births Attended by Trained Personnel 1990-96 (a)	Percentage of 1-Year-Olds Immunized Against					Percentage of Pregnant Women Immunized for Tetanus 1992-95 (a)	ORT (a,d) Use (percent) 1990-96	Contraceptive Prevalence (percent) Any Method/ Modern Method/ 1971-96 (a)	Population per (a)				
		TB (b)	DPT (c)	Polio		Measles				Doctor		Nurse		
				1992-95 (a)	1992-95 (a)					1980	1995	1980-83	1990-93	1980-83
WORLD	X	X	X	X	X	X	X	X	57/49	3,770	X	X	X	X
AFRICA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Algeria	77	93	83	83	X	X	52	98	52/49	X	1,062	X	X	X
Angola	X	40	21	23	X	32	14	X	X	X	23,725	X	X	X
Benin	45	91	79	79	X	81	77	60	9/0.5	13,408	X	1,755	4,182	X
Botswana	78	81	78	78	63	68	56	X	33/32	6,906	X	703	X	X
Burkina Faso	42	78	47	47	X	55	39	100	8/4	57,181	X	1,683	X	X
Burundi	19	77	63	62	X	44	30	X	9/1	X	17,153	X	X	4,778
Cameroon	64	54	46	46	X	51	12	X	16/4	X	11,996	X	X	1,999
Central African Rep	46	73	38	37	12	70	50	34	24/4	23,302	25,920	2,193	11,309	X
Chad	15	36	17	16	X	X	50	X	1	e	X	30,030	X	X
Congo, Dem Rep	X	46	26	27	18	41	33	90	8/2	X	15,150	X	X	1,355
Congo, Rep	X	94	79	79	X	39	75	41	X	8,425	3,713	595	1,401	X
Côte d'Ivoire	45	48	40	40	X	57	22	18	11/4	X	11,739	X	X	3,244
Egypt	46	95	90	91	78	89	64	43	47/46	732	1,316	782	489	X
Equatorial Guinea	X	X	X	X	X	X	X	X	X	X	3,556	X	X	2,286
Eritrea	21	57	45	45	X	29	19	38	5/4	X	X	X	X	X
Ethiopia	14	63	51	48	4	38	22	95	4/3	88,119	X	4,998	X	X
Gabon	80	73	56	57	X	X	29	X	X	2,305	X	225	X	X
Gambia, The	44	98	90	92	X	X	93	X	12/7	X	X	X	X	X
Ghana	44	70	55	55	16	54	64	93	20/10	X	X	640	X	X
Guinea	31	86	73	73	X	X	56	38	2/1	46,401	7,445	5,161	5,166	X
Guinea-Bissau	27	100	100	98	X	X	53	X	1	e	7,491	X	1,130	X
Kenya	45	92	84	84	X	35	72	76	33/27	8,319	21,970	942	8,675	X
Lesotho	40	59	58	59	X	X	12	42	23/19	X	24,095	X	2,040	X
Liberia	58	92	62	62	X	X	77	94	6/5	9,396	X	1,382	X	X
Libya	76	99	96	96	65	92	45	49	X	693	957	350	340	X
Madagascar	57	77	64	63	X	59	33	85	17/5	9,891	8,385	1,721	3,736	X
Malawi	55	91	76	80	49	X	77	78	13/7	53,605	X	3,024	X	X
Mali	24	75	46	46	X	49	19	X	7/5	25,997	X	1,348	X	X
Mauritania	40	93	50	50	X	X	28	31	3/1	X	15,772	X	2,261	X
Mauritius	97	87	89	89	X	X	78	X	75/49	1,817	X	583	X	X
Morocco	40	93	90	90	X	88	37	29	50/42	15,493	X	915	X	X
Mozambique	25	58	46	46	X	71	61	83	4	e	37,948	X	5,759	X
Namibia	68	94	76	74	X	57	72	66	29/26	X	4,328	X	317	X
Niger	X	32	18	18	X	38	57	20	4/2	X	53,986	X	3,765	X
Nigeria	31	57	27	27	X	X	21	X	6/4	6,709	X	856	X	X
Rwanda	26	86	57	57	X	X	88	47	21/13	34,797	X	3,659	X	X
Senegal	46	90	80	80	X	80	39	18	7/5	13,039	18,192	1,931	13,174	X
Sierra Leone	25	60	43	43	36	X	61	X	4	e	18,973	X	2,078	X
Somalia	2	37	28	28	9	X	11	97	1	e	25,334	X	2,809	X
South Africa	82	95	73	72	X	X	26	X	50/48	X	X	X	X	X
Sudan	69	88	76	77	X	77	65	X	8/7	9,582	X	1,408	X	X
Swaziland	X	X	X	X	X	94	X	X	20/17	18,698	9,566	1,046	628	X
Tanzania	53	92	88	86	45	75	71	76	20/13	X	X	X	X	X
Togo	54	81	73	71	X	65	43	X	12/3	21,357	11,385	1,657	3,060	X
Tunisia	69	89	92	92	65	91	49	X	60/51	3,642	1,549	956	411	X
Uganda	38	98	79	78	X	X	76	46	15/8	21,832	X	2,049	X	X
Zambia	51	63	72	72	X	78	44	99	15/9	7,327	10,917	765	X	X
Zimbabwe	69	95	80	80	X	X	46	60	48/42	7,074	7,384	997	1,594	X
EUROPE	X	X	X	X	X	X	X	X	72/45	X	X	X	X	X
Albania	99	97	97	98	X	91	X	X	X	1,075	735	X	X	X
Austria	100	X	90	90	X	X	X	X	71/56	436	231	170	X	X
Belarus, Rep	100	93	90	93	X	X	X	X	50/42	283	236	98	89	X
Belgium	100	X	97	94	X	X	X	X	79/75	370	274	108	X	X
Bosnia and Herzegovina	X	85	67	69	X	X	X	X	X	X	X	X	X	X
Bulgaria	100	98	100	94	X	X	X	X	76/8	385	306	188	162	X
Croatia, Rep	X	98	90	90	X	X	93	X	X	X	X	X	X	X
Czech Rep	X	X	96	98	X	96	X	X	69/45	X	273	X	X	X
Denmark	100	X	89	100	X	X	X	X	78/72	420	360	140	153	X
Estonia, Rep	X	99	84	89	74	81	X	X	70/56	228	253	89	127	X
Finland	100	100	100	100	X	98	X	X	80/78	460	406	93	X	X
France	99	78	89	92	X	X	X	X	77/70	462	X	111	X	X
Germany	99	X	45	80	X	X	X	X	75/72	433	X	X	X	X
Greece	97	50	78	95	X	X	X	X	X	394	X	370	X	X
Hungary	99	100	100	100	99	100	X	X	73/64	381	306	157	X	X
Iceland	X	X	X	X	X	X	X	X	X	435	X	87	X	X
Ireland	X	X	X	X	X	X	X	X	60	f	775	X	141	X
Italy	X	X	50	98	X	50	X	X	78/32	750	X	250	X	X
Latvia, Rep	X	100	65	70	X	85	X	X	X	242	278	102	118	X
Lithuania, Rep	X	97	96	89	X	94	X	X	X	243	235	87	92	X
Macedonia, FYR	X	96	88	91	X	X	91	X	X	X	427	X	X	X
Moldova, Rep	X	98	96	99	X	98	X	X	X	295	250	100	90	X
Netherlands	100	X	97	97	91	X	X	X	78/76	480	399	168	X	X
Norway	100	X	92	92	X	X	X	X	76/72	460	308	70	73	X
Poland, Rep	99	94	95	95	92	X	X	X	75/26	541	451	227	189	X
Portugal	90	94	93	95	54	94	X	X	66/33	494	353	X	X	X
Romania	100	100	98	94	X	93	X	X	57/15	612	538	277	X	X
Russian Federation	X	96	93	92	X	X	X	X	X	225	222	85	90	X
Slovak Rep	X	98	99	98	X	99	X	X	74/41	X	287	X	105	X
Slovenia, Rep	X	99	98	98	X	X	X	X	X	X	X	X	X	X
Spain	96	X	88	88	X	X	X	X	59/38	362	261	277	X	X
Sweden	100	X	99	99	X	X	X	X	78/71	410	394	95	X	X
Switzerland	99	X	X	X	X	X	X	X	71/65	X	X	129	X	X
Ukraine	100	92	94	95	X	X	X	X	X	84	227	94	87	X
United Kingdom	100	X	92	94	X	X	X	X	82/X	612	X	120	X	X
Yugoslavia, Fed Rep	X	68	92	93	X	X	X	X	X	290	232	X	X	X

	Percentage of Births Attended by Trained Personnel 1990-96 (a)	Percentage of 1-Year-Olds Immunized Against					Percentage of Pregnant Women Immunized for Tetanus 1992-95 (a)	ORT (a,d) Use (percent) 1990-96	Contraceptive Prevalence (percent) Any Method/ Modern Method/ 1971-96 (a)	Population per (a)				
		TB (b)	DPT (c)	Polio	Measles					1980-83	1990-93	1980-83	1990-93	
					1980	1995								Doctor
NORTH AMERICA	X	X	X	X	X	X	X	X	71/67	X	X	X	X	
Canada	99	X	93	89	X	X	X	X	73/70	560	464	123	107	
United States	99	X	94	84	86	X	X	X	71/67	500	X	180	X	
CENTRAL AMERICA	X	X	X	X	X	X	X	X	X	X	X	X	X	
Belize	X	X	X	X	21	87	X	X	47/42	X	2,028	X	490	
Costa Rica	93	99	85	86	60	94	90	31	75/65	X	X	X	X	
Cuba	90	99	100	93	48	100	61	X	70/67	721	275	X	X	
Dominican Rep	92	74	83	80	29	85	52	X	56/52	X	949	1,239	X	
El Salvador	87	100	100	94	45	93	80	69	53/48	2,560	X	X	X	
Guatemala	35	78	59	56	23	83	55	22	32/27	X	X	1,360	X	
Haiti	21	68	34	34	X	X	49	31	18/14	9,079	10,855	X	8,945	
Honduras	88	99	96	96	35	90	48	32	47/35	3,100	X	X	X	
Jamaica	82	100	92	92	X	89	82	X	62/58	2,786	6,420	X	489	
Mexico	77	98	92	92	35	90	42	81	53/45	1,176	X	X	X	
Nicaragua	61	100	85	96	15	81	49	54	49/45	2,243	X	594	X	
Panama	86	100	86	86	47	84	24	94	64/58	1,010	X	X	X	
Trinidad and Tobago	98	X	89	90	X	90	19	X	53/44	1,485	1,520	386	247	
SOUTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X	X	
Argentina	97	96	66	70	58	95	X	X	74	e	X	X	X	
Bolivia	47	85	85	86	13	83	65	43	45/18	1,911	2,348	X	X	
Brazil	81	100	83	83	56	88	70	X	66/57	1,301	X	1,140	X	
Chile	98	96	92	92	87	95	X	X	43	e	X	942	X	
Colombia	85	99	93	95	14	80	57	45	72/59	X	X	X	X	
Ecuador	64	91	72	70	24	73	21	64	57/46	X	652	X	1,853	
Guyana	X	X	X	X	X	77	X	X	31/28	X	8,948	X	893	
Paraguay	66	92	79	79	19	75	66	33	56/41	1,746	1,231	X	X	
Peru	52	96	95	93	21	97	21	92	59/33	1,104	939	X	X	
Suriname	X	X	X	X	X	79	X	X	X	X	1,274	X	270	
Uruguay	96	99	86	86	50	84	13	X	X	501	X	X	X	
Venezuela	69	91	68	85	50	67	18	X	49/38	1,185	633	X	329	
ASIA	X	X	X	X	X	X	X	X	59/55	X	X	X	X	
Afghanistan, Islamic State	9	31	41	56	11	X	3	X	2/2	13,237	7,001	8,955	X	
Armenia, Rep	X	83	83	92	X	X	X	X	X	275	261	114	101	
Azerbaijan	X	93	93	98	X	X	X	X	X	284	257	113	106	
Bangladesh	14	94	69	69	X	96	78	96	47/39	8,424	12,884	14,750	11,549	
Bhutan	15	98	87	86	21	85	70	85	19	e	9,761	4,256	1,250	2,576
Cambodia	47	95	79	80	X	75	36	X	X	16,286	9,374	X	1,231	
China	84	92	92	94	X	93	11	85	83/80	1,003	1,063	1,705	1,490	
Georgia	X	30	58	82	X	X	X	X	X	198	182	88	85	
India	34	96	89	98	X	79	79	31	41/37	3,703	X	4,674	X	
Indonesia	36	86	78	79	X	92	74	99	55/52	9,412	X	X	X	
Iran, Islamic Rep	77	99	97	97	39	96	82	37	65/45	2,949	X	1,179	X	
Iraq	54	99	91	91	35	95	72	X	14/10	1,760	1,659	2,195	1,398	
Israel	99	X	92	93	69	X	X	X	X	345	X	107	X	
Japan	100	91	85	91	69	X	X	X	59/53	735	X	210	X	
Jordan	87	X	100	99	29	92	59	41	35/27	887	554	862	548	
Kazakhstan, Rep	99	89	93	94	X	X	X	X	59/47	294	254	95	91	
Korea, Dem People's Rep	100	99	96	99	29	98	95	X	62/53	426	X	X	X	
Korea, Rep	98	93	93	93	4	93	X	X	79/70	1,386	951	X	454	
Kuwait	99	X	100	100	48	98	21	X	35/32	617	X	178	X	
Kyrgyz Rep	X	90	82	81	X	X	X	98	X	322	303	110	105	
Lao People's Dem Rep	X	59	53	64	X	68	35	X	19/15	X	4,446	X	493	
Lebanon	45	X	92	92	X	85	X	82	53/23	752	X	X	2,971	
Malaysia	94	97	90	90	X	X	79	X	48/31	3,921	2,441	570	480	
Mongolia	99	94	88	86	17	85	X	X	61/25	104	371	217	219	
Myanmar	57	82	72	72	X	82	83	96	17/14	4,952	X	4,943	1,227	
Nepal	7	61	63	62	X	71	11	27	29/26	30,062	13,634	7,783	2,257	
Oman	87	96	99	99	22	100	95	85	9/8	1,822	X	863	X	
Pakistan	19	75	35	37	1	56	36	97	12/9	2,931	1,923	5,870	3,330	
Philippines	53	91	85	86	X	86	48	63	40/25	6,713	8,273	2,591	X	
Saudi Arabia	82	93	97	97	8	94	62	58	X	1,819	749	738	329	
Singapore	100	97	95	93	47	88	X	X	74/73	1,046	714	321	X	
Sri Lanka	94	90	93	92	X	88	81	34	66/44	7,464	X	1,262	X	
Syrian Arab Rep	67	100	100	100	13	90	76	36	36/28	2,160	X	1,421	1,047	
Tajikistan, Rep	X	96	93	96	X	X	X	X	X	396	424	148	139	
Thailand	71	98	94	94	X	89	93	95	74/72	6,268	4,416	1,873	X	
Turkey	76	42	51	51	27	65	38	16	63/35	1,539	976	1,156	1,098	
Turkmenistan, Rep	X	88	80	83	X	X	X	98	X	338	306	121	100	
United Arab Emirates	96	98	90	90	34	90	X	X	X	936	1,208	410	718	
Uzbekistan, Rep	X	95	89	99	X	X	X	X	X	321	282	114	86	
Vietnam	X	X	X	X	X	X	X	X	65/44	4,048	2,279	1,241	1,149	
Yemen	16	87	37	36	2	53	3	92	7/6	6,912	4,498	2,014	1,833	
OCEANIA	X	X	X	X	X	X	X	X	X	X	X	X	X	
Australia	100	X	X	X	X	87	X	X	76/72	524	X	140	X	
Fiji	X	X	X	X	32	178	X	X	41/35	2,025	X	490	X	
New Zealand	99	20	84	84	80	84	X	X	70/62	611	518	145	X	
Papua New Guinea	20	78	50	55	X	63	31	X	4	e	16,018	12,754	957	1,569
Solomon Islands	X	X	X	X	X	68	X	X	X	X	6,154	X	716	

Notes: a. Data are for most recent year available. b. TB: tuberculosis c. DPT: diphtheria, pertussis (whooping cough), and tetanus. d. ORT: Oral rehydration therapy. e. Data are from UNICEF for the most recent year available from 1990 to 1996 and refer to any method. f. Data are from the World Bank for the most recent year available from 1990 to 1995 and refer to any method.

Data Table 8.5

City Air Pollution, 1990–95

Source: Compiled by World Resources Institute

City Name	City Population 1995 (000)	Mean Annual TSP (a) (ug/m3)	Year of Data	Mean Annual Black Smoke (b) (ug/m3)	Year of Data	Mean Annual PM-10 (c) (ug/m3)	Year of Data	Mean Annual SO2 (d) (ug/m3)	Year of Data	Mean Annual NO2 (e) (ug/m3)	Year of Data	
AFRICA												
Egypt	Cairo	9,690	X	X	82 f	1993	X	X	69 f	1993	X	X
Ghana	Accra	1,673	137 f	1990	X	X	X	X	X	X	X	X
Kenya	Nairobi	1,810	69	1995	X	X	X	X	X	X	X	X
South Africa	Capetown	2,671	X	X	X	X	27	1995	21	1994	72 f	1995
	Durban	1,149	X	X	X	X	X	X	31	1995	X	X
	Johannesburg	1,849	X	X	61 f	1995	X	X	19	1995	31	1995
EUROPE												
Austria	Graz	259	45	1995	X	X	X	X	12	1995	34	1995
	Linz	213	34	1995	X	X	X	X	7	1995	25	1995
	Vienna	2,060	47	1995	X	X	X	X	14	1995	42	1995
Belgium	Antwerp	499	76	1995	X	X	X	X	25	1995	49	1995
	Brussels	1,122	78	1995	X	X	X	X	20	1995	48	1995
	Liege	209	82	1995	X	X	X	X	17	1995	35	1995
Bulgaria	Plovdiv	367	213 g	1995	X	X	X	X	96 f	1995	76 f	1995
	Sofia	1,188	195 q	1995	X	X	X	X	39	1995	122 q	1995
Croatia, Rep	Zagreb	981	71	1995	21	1995	X	X	31	1995	X	X
Czech Rep	Brno	390	50	1995	X	X	X	X	13	1995	28	1995
	Ostrava	331	66	1995	X	X	X	X	27	1995	50	1995
	Prague	1,225	59	1995	X	X	X	X	32	1995	23	1995
Denmark	Copenhagen	1,326	61	1995	X	X	X	X	7	1995	54 f	1995
Finland	Helsinki	1,059	40	1995	X	X	X	X	4	1995	35	1995
	Tempere	185	96 f	1995	X	X	X	X	5	1995	X	X
	Turku	176	61	1995	X	X	X	X	6	1995	37	1995
France	Nantes	257	20	1994	X	X	X	X	10	1994	42	1993
	Paris	9,523	14	1994	21	1993	X	X	14	1994	57	1993
Germany	Berlin	3,317	50	1995	X	X	X	X	18	1995	26	1995
	Frankfurt	3,606	36	1995	X	X	X	X	11	1995	45	1995
	Munich	2,238	45	1995	X	X	X	X	8	1995	53 f	1995
Greece	Athens	3,093	178 f	1990	61 f	1995	X	X	34	1995	64 f	1995
Hungary	Budapest	2,017	63	1995	X	X	X	X	39	1995	51 f	1995
	Debrecen	221	X	X	X	X	X	X	45	1993	30	1994
	Miskolc	219	42	1995	X	X	X	X	34	1995	30	1995
	Szekesfehervar	116	239 q	1993	X	X	X	X	X	X	X	X
Iceland	Reykjavik	100	24	1995	X	X	X	X	5	1995	42	1995
Ireland	Cork	146	X	X	41	1990	X	X	12	1993	X	X
	Dublin	911	X	X	41	1990	X	X	20	1993	X	X
Italy	Milan	4,251	77	1993	X	X	X	X	31	1993	248 g	1992
	Rome	2,931	73	1994	X	X	X	X	X	X	X	X
	Turin	1,294	151 f	1993	X	X	X	X	X	X	X	X
Netherlands	Amsterdam	1,108	40	1990	X	X	X	X	10	1990	58 f	1990
Norway	Bergen	221	X	X	X	X	X	X	X	X	64 f	1993
	Oslo	477	15	1993	X	X	X	X	8	1993	43	1995
Poland, Rep	Katowice	3,552	X	X	X	X	147 f	1990	89 f	1990	79 f	1990
	Lodz	1,063	X	X	28	1995	X	X	21	1995	43	1995
	Warsaw	2,219	X	X	44	1995	X	X	16	1995	32	1995
Portugal	Lisbon	1,863	61	1995	91	1991	X	X	8	1995	52 f	1995
	Porto	392	X	X	15	1992	X	X	15	1995	38	1995
Romania	Bucharest	2,100	82	1995	X	X	X	X	10	1995	71 f	1995
Russian Federation	Moscow	9,269	100 f	1992	X	X	X	X	109 g	1992	X	X
	Omsk	1,199	100 f	1993	X	X	X	X	9	1993	30	1993
Slovak Rep	Bratislava	651	62	1995	X	X	X	X	21	1991	27	1991
	Kosice	249	71	1995	X	X	X	X	27	1991	22	1991
Spain	Barcelona	2,819	117 f	1991	X	X	X	X	11	1991	43	1991
	Madrid	4,072	42	1992	44	1995	X	X	11	1995	25	1995
Sweden	Goteborg	449	9	1995	X	X	X	X	6	1995	32	1995
	Stockholm	1,545	9	1995	X	X	X	X	5	1995	29	1995
Switzerland	Geneva	182	29	1995	X	X	X	X	13	1995	58 f	1995
	Zurich	897	31	1995	X	X	X	X	11	1995	39	1995
United Kingdom	Birmingham	2,271	X	X	0	1995	23	1995	9	1995	45	1995
	Glasgow	900	X	X	X	X	X	X	18	1995	49	1995
	London	7,640	X	X	14	1992	28	1995	25	1995	77 f	1995
	Manchester	2,434	X	X	18	1995	X	X	26	1995	49	1995
NORTH AMERICA												
Canada	Hamilton	322	55	1993	X	X	X	X	23	1993	38	1993
	Montreal	3,320	34	1993	X	X	X	X	10	1993	42	1993
	Ottawa	1,057	X	X	X	X	X	X	X	X	40	1993
	Toronto	4,319	36	1993	X	X	X	X	17	1993	43	1993
	Vancouver	1,823	29	1993	X	X	X	X	14	1993	37	1993
United States	Atlanta	2,462	X	X	X	X	31	1995	11	1995	32	1995
	Chicago	6,844	X	X	X	X	34	1995	14	1995	56 f	1995
	Dallas	3,609	X	X	X	X	30	1995	X	X	26	1995
	Denver	1,609	X	X	X	X	24	1995	11	1995	55 f	1995
	Detroit	3,723	X	X	X	X	35	1995	17	1995	41	1995
	Los Angeles	12,410	X	X	X	X	39	1995	9	1995	73 f	1995
	Miami	2,080	X	X	X	X	24	1995	X	X	21	1995
	New York	16,332	X	X	X	X	26	1995	26	1995	79 f	1995
	Washington, D.C.	3,685	X	X	X	X	23	1995	20	1995	43	1995

City Name	City Population 1995 (000)	Mean Annual TSP (a) (ug/m3)	Year of Data	Mean Annual Black Smoke (b) (ug/m3)	Year of Data	Mean Annual PM-10 (c) (ug/m3)	Year of Data	Mean Annual SO2 (d) (ug/m3)	Year of Data	Mean Annual NO2 (e) (ug/m3)	Year of Data	
CENTRAL AMERICA												
Cuba	Havana	2,241	X	X	X	X	X	X	1	1995	5	1995
Mexico	Mexico City	16,562	279 g	1994	X	X	X	X	74 f	1994	130 g	1994
SOUTH AMERICA												
Argentina	Cordoba City	1,294	97 f	1992	X	X	X	X	X	X	97 f	1991
	Mendoza	851	X	X	51 f	1995	X	X	3	1995	20	1995
	Santa Fe	365	X	X	54 f	1994	X	X	X	X	X	X
Brazil	Rio de Janeiro	10,181	139 f	1995	X	X	X	X	129 g	1987	X	X
	Sao Paulo	16,533	86	1995	66 f	1995	X	X	43	1995	83 f	1988
Chile	Santiago	4,891	X	X	X	X	86 f	1995	29	1995	81 f	1995
Colombia	Bogota	6,079	120 f	1986	X	X	X	X	X	X	X	X
Ecuador	Ambato	147	X	X	60 f	1995	X	X	45	1995	X	X
	Cuenca	223	X	X	89 f	1995	X	X	16	1995	X	X
	Esmeraldas	157	X	X	71 f	1995	X	X	5	1988	X	X
	Guayaquil	1,831	127 f	1995	55 f	1990	X	X	15	1990	X	X
	Quito	1,298	175 f	1995	270 g	1995	56	1995	31	1995	X	X
Venezuela	Caracas	3,007	53	1995	25	1991	X	X	33	1994	57 f	1995
ASIA												
China	Beijing	11,299	377 g	1995	X	X	X	X	90 f	1995	122 g	1995
	Chengdu	4,323	366 g	1995	X	X	X	X	77 f	1995	74 f	1995
	Chongqing	3,525	320 g	1995	X	X	X	X	340 g	1995	70 f	1995
	Guangzhou	4,056	295 g	1995	X	X	X	X	57 f	1995	136 g	1995
	Harbin	3,303	359 g	1995	X	X	X	X	23	1995	30	1995
	Liupanshui	3,615	408 g	1995	X	X	X	X	102 g	1995	X	X
	Qingdao	3,138	X	X	X	X	X	X	190 g	1995	64	1995
	Shanghai	13,584	246 g	1995	X	X	X	X	53 f	1995	73 f	1995
	Shenyang	5,116	374 g	1995	X	X	X	X	99 f	1995	73 f	1995
	Tianjin	9,415	306 g	1995	X	X	X	X	82 f	1995	50	1995
	Wuhan	4,247	211 g	1995	X	X	X	X	40	1995	43	1995
	Zibo	3,779	453 g	1995	X	X	X	X	198 g	1995	43	1995
India	Ahmedabad	3,711	299 g	1994	X	X	X	X	30	1994	21	1994
	Bangalore	4,799	123 f	1991	X	X	X	X	23	1991	13	1991
	Bombay	15,138	240 g	1994	X	X	X	X	33	1994	39	1994
	Calcutta	11,923	375 g	1994	X	X	X	X	49	1994	34	1994
	Delhi	9,948	415 g	1994	X	X	X	X	24	1994	41	1994
	Hyderabad	5,477	123 f	1994	X	X	X	X	12	1994	17	1994
	Jaipur	1,483	283 g	1994	X	X	X	X	9	1994	28	1994
	Kanpur	2,227	459 g	1994	X	X	X	X	15	1994	14	1994
	Lucknow	2,078	463 g	1994	X	X	X	X	26	1994	25	1994
	Madras	6,002	131 f	1994	X	X	X	X	15	1994	17	1994
	Nagpur	1,851	185 g	1994	X	X	X	X	6	1994	13	1994
	Pune	2,955	208 g	1991	X	X	X	X	17	1991	40	1991
Indonesia	Jakarta	8,621	271 g	1990	X	X	X	X	X	X	X	X
Iran, Islamic Rep	Tehran	6,830	248 g	1993	119 g	1993	X	X	209 g	1993	X	X
Japan	Kanazawa	440	23	1994	X	X	X	X	11	1994	25	1994
	Kawasaki	1,153	52	1994	X	X	X	X	18	1994	62 f	1994
	Osaka	10,609	43	1993	X	X	44	1994	19	1994	63 f	1994
	Tokyo	26,959	49	1993	X	X	47	1994	18	1995	68 f	1995
	Yokohama	3,178	X	X	X	X	41	1995	100 f	1995	13	1995
Korea, Rep	Incheon	2,340	93 f	1995	X	X	X	X	60 f	1995	45	1995
	Kwanjin	1,424	64	1995	X	X	X	X	26	1995	38	1995
	Pusan	4,082	94 f	1994	X	X	X	X	60 f	1995	51 f	1995
	Seoul	11,609	84	1995	X	X	X	X	44	1995	60 f	1995
	Taegu	2,432	72	1995	X	X	X	X	81 f	1995	62 f	1995
	Taejeon	1,285	68	1995	X	X	X	X	44	1995	39	1995
	Ulsan	758	99 f	1994	X	X	X	X	89 f	1994	X	X
Malaysia	Georgetown	212	130 f	1993	X	X	X	X	X	X	X	X
	Kuala Lumpur	1,238	85	1993	X	X	X	X	24	1990	X	X
Philippines	Manila	9,286	200 g	1995	X	X	X	X	33	1993	X	X
Singapore	Singapore	2,848	X	X	X	X	34	1995	20	1995	30	1995
Thailand	Bangkok	6,547	223 g	1995	X	X	X	X	11	1993	23	1993
Turkey	Ankara	2,826	57	1995	X	X	X	X	55 f	1995	46	1995
	Eskisehir	585	X	X	59 f	1995	X	X	124 g	1995	7	1995
	Istanbul	7,911	X	X	66 f	1995	X	X	120 g	1995	X	X
	Izmir	2,031	X	X	81 f	1994	X	X	X	X	X	X
	Kocaeli	453	X	X	62 f	1995	X	X	88 f	1995	X	X
	Samsun	384	X	X	27	1995	X	X	46	1995	X	X
OCEANIA												
Australia	Canberra	313	27	1993	X	X	X	X	X	X	76 f	1991
	Melbourne	3,094	35	1995	X	X	19	1995	0	1995	30	1995
	Perth	1,220	45	1995	X	X	22	1995	5	1995	19	1995
	Sydney	3,590	54	1995	X	X	24	1995	28	1990	X	X
	Wollongong	271	5	1990	X	X	X	X	19	1992	X	X
New Zealand	Auckland	945	26	1995	6	1995	25	1995	3	1995	20	1995
	Christchurch	186	34	1995	X	X	22	1995	6	1995	17	1995

Notes: a. Total suspended particulates (TSP) in the air in micrograms per cubic meter. b. Black smoke (particles large or dark enough to be seen as soot or smoke) measured in micrograms per cubic meter. c. Particulate matter includes particles with aerodynamic size less than or equal to a standard particle with a diameter of 10 micrometers; measured in micrograms per cubic meter. d. Sulfur dioxide measured in micrograms per cubic meter. e. Nitrogen dioxide measured in micrograms per cubic meter. f. Level exceeds World Health Organization (WHO) guidelines. g. Level is more than double WHO guidelines.

Data Table 8.6

Lead in Gasoline and Lead Production, 1986–96

Source: United Nations Department for Economic and Social Information and Policy Analysis, Statistics Division; The World Bank; United States Geological Survey

	Lead in Gasoline				Lead Production					
	Consumption of Motor Gasoline (million liters)	Gasoline Cost per Liter (US\$)	Market Share of Leaded Gasoline (percent)	Maximum Concentration of Lead in Gasoline (grams/liter)	Mines		Refineries (000 metric tons)			
					in Concentrates		Primary		Secondary	
					1986	1996	1986	1996	1986	1996
1995	1996	1992-1996 (a)	1992-1996 (a)	1986	1996	1986	1996	1986	1996	
WORLD	1,064,280	X	X	X	3,335	2,920	3,193	2,830	2,359	2,650
AFRICA	28,407	X	X	X	X	X	X	X	X	X
Algeria	2,837	0.40	100	0.63	4	1	0	1	0	8
Angola	99	X	100	0.77	0	0	0	0	0	0
Benin	88	0.36	100	0.84	0	0	0	0	0	0
Botswana	X	0.38	100	0.44	0	0	0	0	0	0
Burkina Faso	91	0.81	100	0.84	0	0	0	0	0	0
Burundi	34	0.52	100	0.84	0	0	0	0	0	0
Cameroon	478	0.68	100	0.84	0	0	0	0	0	0
Central African Rep	22	0.82	X	X	0	0	0	0	0	0
Chad	9	0.80	100	0.84	0	0	0	0	0	0
Congo, Dem Rep	200	X	X	X	0	0	0	0	0	0
Congo, Rep	70	X	X	X	1	0	0	0	0	0
Côte d'Ivoire	769	0.83	100	0.26	0	0	0	0	0	0
Egypt	2,607	0.29	X	0.80	0	0	0	0	0	0
Equatorial Guinea	7	X	X	X	0	0	0	0	0	0
Eritrea	X	X	X	X	0	0	0	0	0	0
Ethiopia	172	0.32	100	0.76	0	0	0	0	0	0
Gabon	38	X	100	0.80	0	0	0	0	0	0
Gambia, The	38	X	X	X	0	0	0	0	0	0
Ghana	455	0.38	100	0.63	0	0	0	0	0	0
Guinea	99	X	X	X	0	0	0	0	0	0
Guinea-Bissau	20	X	X	X	0	0	0	0	0	0
Kenya	458	0.56	100	0.40	1	0	0	0	2	0
Lesotho	X	X	X	X	0	0	0	0	0	0
Liberia	36	X	100	0.77	0	0	0	0	0	0
Libya	2,162	X	100	0.80	0	0	0	0	0	0
Madagascar	105	0.47	100	0.80	0	0	0	0	0	0
Malawi	92	X	100	0.53	0	0	0	0	0	0
Mali	82	0.82	100	0.80	0	0	0	0	0	0
Mauritania	359	0.94	100	0.25	0	0	0	0	0	0
Mauritius	113	0.53	100	0.40	0	0	0	0	0	0
Morocco	499	X	100	0.50	76	72	60	60	2	2
Mozambique	53	X	100	0.65	0	0	0	0	0	0
Namibia	X	X	100	0.40	38	15	40	19	0	0
Niger	63	0.79	100	0.65	0	0	0	0	0	0
Nigeria	4,199	0.13	100	0.66	0	4	0	0	1	0
Rwanda	45	X	X	X	0	0	0	0	0	0
Senegal	242	0.94	100	0.60	0	0	0	0	0	0
Sierra Leone	41	X	X	X	0	0	0	0	0	0
Somalia	X	X	X	X	0	0	0	0	0	0
South Africa	10,133	0.48	88	0.40	98	89	0	0	41	36
Sudan	262	0.50	X	X	0	0	0	0	0	0
Swaziland	X	X	X	X	0	0	0	0	0	0
Tanzania	149	0.56	X	X	0	0	0	0	0	0
Togo	86	0.47	X	X	0	0	0	0	0	0
Tunisia	420	X	100	0.50	2	5	2	3	1	5
Uganda	127	0.98	100	0.84	0	0	0	0	0	0
Zambia	145	0.60	X	X	15	0	7	0	0	0
Zimbabwe	405	X	100	0.84	0	0	0	0	0	0
EUROPE	239,823	X	X	X	X	X	X	X	X	X
Albania	74	X	X	X	0	0	0	0	0	0
Austria	3,286	1.15	0	0.00	5	0	6	0	19	22
Belarus, Rep	1,714	X	3	0.82	0	0	0	0	0	0
Belgium	3,846	1.19	26	0.15	0	0	65	94	34	26
Bosnia and Herzegovina	84	X	X	X	0	0	0	0	0	0
Bulgaria	1,551	0.46	95	0.15	95	21	97	60	17	10
Croatia, Rep	767	0.75	70	0.60	0	0	0	0	0	0
Czech Rep	2,413	0.85	45	0.15	0	0	0	0	0	0
Denmark	2,607	1.13	0	0.00	0	0	0	0	1	0
Estonia, Rep	611	0.33	20	0.15	0	0	0	0	0	0
Finland	2,940	1.20	0	0.00	2	0	0	0	1	0
France	21,808	1.18	38	0.15	3	0	132	135	98	160
Germany	42,996	1.11	5	0.15	17	0	0	190	0	150
Greece	3,938	0.93	67	0.40	21	20	19	0	0	0
Hungary	2,093	0.74	36	0.15	0	0	0	0	0	0
Iceland	184	1.05	15	0.15	0	0	0	0	0	0
Ireland	1,402	1.04	35	0.15	36	45	0	0	10	10
Italy	25,295	1.22	56	0.15	11	14	29	47	102	96
Latvia, Rep	557	0.41	X	X	0	0	0	0	0	0
Lithuania, Rep	820	0.62	2	0.15	0	0	0	0	0	0
Macedonia, FYR	280	0.93	X	X	0	15	0	8	0	2
Moldova, Rep	304	X	100	0.40	0	0	0	0	0	0
Netherlands	11,250	1.16	14	0.15	0	0	0	0	33	25
Norway	3,010	1.34	2	0.15	3	1	0	0	0	0
Poland, Rep	6,725	0.55	30	0.15	43	58	63	51	25	15
Portugal	2,566	1.03	61	0.40	0	0	0	0	6	12
Romania	1,948	0.29	94	0.60	34	19	36	20	16	5
Russian Federation	35,231	0.40	50	0.60	0	16	0	15	0	12
Slovak Rep	676	0.66	0	0.00	0	1	0	0	0	0
Slovenia, Rep	1,111	0.59	46	0.15	0	0	0	0	0	7
Spain	11,960	0.91	77	0.40	80	30	88	75	42	80
Sweden	5,892	1.17	0	0.00	89	100	49	45	28	35
Switzerland	4,999	1.02	13	0.15	0	0	0	0	3	6
Ukraine	5,382	X	16	0.37	0	0	0	12	0	0
United Kingdom	29,332	0.92	33	0.15	1	2	156	168	173	178
Yugoslavia, Fed Rep	173	0.76	X	X	0	17	0	12	0	0

	Lead in Gasoline				Lead Production						
	Consumption of Motor Gasoline (million liters)	Gasoline Cost per Liter (US\$)	Market Share of Leaded Gasoline (percent)	Maximum Concentration of Lead in Gasoline (grams/liter)	Mines		Refineries (000 metric tons)				
					in Concentrates (000 metric tons)		Primary		Secondary		
					1986	1996	1986	1996	1986	1996	
NORTH AMERICA	487,037	X	X	X	X	X	X	X	X	X	
Canada	35,184	0.51	0	0.00	349	241	170	194	88	115	
United States	451,853	0.39	0	0.00	353	436	370	326	625	1,100	
CENTRAL AMERICA	40,579	X	X	X	X	X	X	X	X	X	
Belize	35	X	X	X	0	0	0	0	0	0	
Costa Rica	547	0.41	20	0.20	0	0	0	0	0	0	
Cuba	1,293	X	100	0.84	0	0	0	0	0	0	
Dominican Rep	811	X	69	0.40	0	0	0	0	0	0	
El Salvador	380	0.47	47	0.20	0	0	0	0	0	0	
Guatemala	576	0.45	0	0.00	0	0	0	0	0	0	
Haiti	73	X	X	X	0	0	0	0	0	0	
Honduras	309	0.40	35	X	13	3	0	0	0	0	
Jamaica	467	0.27	70	0.77	0	0	0	0	1	1	
Mexico	35,261	0.39	44	0.26	183	174	182	144	33	10	
Nicaragua	151	0.89	100	X	0	0	0	0	0	0	
Panama	403	0.49	7	0.63	0	0	0	0	0	0	
Trinidad and Tobago	273	0.48	99	X	0	0	0	0	2	16	
SOUTH AMERICA	56,180	X	X	X	X	X	X	X	X	X	
Argentina	8,407	0.84	0	0.00	27	10	16	2	15	26	
Bolivia	546	0.60	0	0.00	3	16	0	0	0	0	
Brazil	18,471	0.65	0	0.00	14	0	33	15	52	3	
Chile	2,814	0.55	72	0.31	2	1	0	0	0	0	
Colombia	7,533	0.34	0	0.00	0	0	0	0	4	4	
Ecuador	1,670	0.33	76	0.80	0	0	0	0	0	0	
Guyana	97	X	X	X	0	0	0	0	0	0	
Paraguay	326	0.44	99	0.20	0	0	0	0	0	0	
Peru	1,046	0.77	75	0.40	194	249	66	95	5	0	
Suriname	85	X	100	X	0	0	0	0	0	0	
Uruguay	401	0.95	94	0.79	0	0	0	0	0	0	
Venezuela	14,784	0.12	100	1.46	0	0	0	0	16	16	
ASIA	191,643	X	X	X	X	X	X	X	X	X	
Afghanistan, Islamic State	101	X	X	X	0	0	0	0	0	0	
Armenia, Rep	74	X	X	X	0	0	0	0	0	0	
Azerbaijan	1,216	X	94	0.37	0	0	0	0	0	0	
Bangladesh	177	0.36	100	0.80	0	0	0	0	0	0	
Bhutan	7	X	X	X	0	0	0	0	0	0	
Cambodia	49	X	X	X	0	0	0	0	0	0	
China	38,593	0.28	40	0.33	227	500	200	430	40	100	
Georgia	69	X	X	X	0	0	0	0	0	0	
India	5,893	0.54	X ^e	0.42	38	31	20	33	11	27	
Indonesia	7,890	X	100	0.45	0	0	0	0	0	0	
Iran, Islamic Rep	10,046	X	100	0.19	22	16	0	6	8	41	
Iraq	4,039	X	100	0.60	0	0	0	0	0	0	
Israel	2,706	0.62	90	0.15	0	0	0	0	0	0	
Japan	50,723	1.08	0	0.00	40	8	233	141	129	147	
Jordan	657	X	100	0.30	0	40	0	0	0	0	
Kazakhstan, Rep	3,017	X	40	0.37	0	0	0	69	0	10	
Korea, Dem People's Rep	2,432	X	X	X	110	80	95	75	0	5	
Korea, Rep	9,438	0.79	17	X	12	5	32	89	28	10	
Kuwait	1,990	0.15	100	0.53	0	0	0	0	0	0	
Kyrgyz Rep	285	X	X	X	0	0	0	0	0	0	
Lao People's Dem Rep	26	X	100	0.40	0	0	0	0	0	0	
Lebanon	1,728	X	100	0.84	0	0	0	0	0	0	
Malaysia	5,531	X	45	0.15	0	0	0	0	14	34	
Mongolia	250	X	X	X	0	0	0	0	0	0	
Myanmar	282	X	X	X	18	3	0	0	0	0	
Nepal	30	0.52	X	X	0	0	0	0	0	0	
Oman	852	X	100	0.62	0	0	0	0	0	0	
Pakistan	1,459	0.45	100	0.42	0	0	0	0	1	2	
Philippines	2,276	X	90	0.15	0	0	0	0	7	17	
Saudi Arabia	13,247	0.16	100	0.40	0	0	0	0	0	0	
Singapore	1,785	X	40	0.15	0	0	0	0	0	0	
Sri Lanka	245	0.74	100	0.20	0	0	0	0	0	0	
Syrian Arab Rep	1,382	X	100	0.40	0	0	0	0	0	0	
Tajikistan, Rep	4,037	X	X	X	0	1	0	0	0	0	
Thailand	5,919	0.31	0	0.15	26	20	0	0	9	19	
Turkey	5,844	0.63	96	0.40	10	10	7	5	3	5	
Turkmenistan, Rep	676	X	X	X	0	0	0	0	0	0	
United Arab Emirates	1,564	X	100	0.40	0	0	0	0	0	0	
Uzbekistan, Rep	2,209	X	X	X	0	10	0	0	0	0	
Vietnam	1,360	0.34	100	0.40	0	0	0	0	0	0	
Yemen	1,540	X	100	0.45	0	0	0	0	0	0	
OCEANIA	20,611	X	X	X	X	X	X	X	X	X	
Australia	17,636	0.54	55	0.45	g	448	522	156	204	15	20
Fiji	61	X	X	X	0	0	0	0	0	0	
New Zealand	2,795	0.63	56	X	0	0	0	0	4	6	
Papua New Guinea	108	X	X	X	0	0	0	0	0	0	
Solomon Islands	11	X	X	X	0	0	0	0	0	0	

Notes: a. Data are for most recent year available. b. Unleaded gasoline has been introduced recently. c. 0.15 in Athens. d. Data are for 1993. e. Unleaded gasoline in four largest cities only. f. Less than 1% unleaded gasoline, in Jakarta only (1995). g. Varies by state.

Data Table 8.7

Demographic and Health Surveys, 1990–95

Source: Demographic and Health Surveys

Year of DHS Survey	Percentage of Households Without										Maximum Number of Households Surveyed	Percentage of Children Under 5 With				Maximum Number of Households Surveyed	
	Piped Water		Own Flush Toilet		Finished Floor		Refrigerator		Radio or Television			Diarrhea		a Cough			
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural		Urban	Rural	Urban	Rural		
AFRICA																	
Burkina Faso	1992-93	74	99	97	100	14	83	87	100	25	59	4,877	19	21	29	32	5,522
Cameroon	1991	85	99	86	99	25	78	75	98	29	55	3,407	17	18	30	27	3,188
Central African Rep	1994-95	96	100	98	100	74	97	96	100	39	64	5,387	20	25	65	59	2,577
Côte d'Ivoire	1994	49	96	80	99	2	43	79	96	33	55	5,815	25	20	37	33	3,645
Egypt	1992	9	55	54	94	6	60	22	71	8	28	10,628	13	13	30	22	8,089
Ghana	1993	63	98	90	100	2	23	77	99	43	66	5,637	17	21	21	24	2,053
Kenya	1993	43	89	77	99	21	80	88	99	31	52	7,532	12	14	37	43	5,620
Madagascar	1992	70	99	91	100	63	93	92	100	34	69	5,961	11	13	41	37	5,007
Morocco	1992	24	91	22	82	4	54	43	95	6	18	6,364	10	14	30	33	4,848
Namibia	1992	18	87	17	94	12	80	44	95	19	41	3,927	14	24	37	45	3,573
Niger	1992	77	100	97	100	36	97	87	100	38	72	5,173	20	29	17	23	5,702
Nigeria	1990	X	X	X	X	X	X	X	X	X	X	X	12	20	17	20	7,069
Rwanda	1992	93	100	100	100	43	92	90	100	X	X	5,976	21	22	37	46	5,020
Senegal	1992-93	46	93	86	99	8	67	79	99	19	35	3,362	16	23	26	30	5,108
Tanzania	1991-92	59	98	97	100	47	92	96	100	43	74	8,026	15	13	34	27	7,230
Uganda	1995	87	100	93	100	33	93	95	100	32	67	7,368	20	24	42	50	5,431
Zambia	1992	45	97	57	99	15	84	85	99	39	77	5,872	20	25	X	X	5,387
Zimbabwe	1994	8	96	34	98	5	59	76	98	33	68	5,786	18	26	42	51	2,221
CENTRAL AMERICA																	
Dominican Rep	1991	72	92	50	93	3	24	42	82	17	41	6,228	17	16	34	38	3,645
Guatemala	1995	39	59	46	91	68	76	53	89	8	27	10,385	20	21	37	33	8,616
SOUTH AMERICA																	
Bolivia	1994	22	77	59	98	22	77	58	93	5	30	8,560	31	28	34	30	3,333
Brazil	1991	23	87	28	83	8	39	39	86	16	37	5,739	17	13	40	39	3,158
Colombia	1995	5	88	10	87	6	41	28	71	4	14	9,417	16	17	43	40	4,891
Paraguay	1990	X	X	X	X	X	X	X	X	X	X	X	8	8	X	X	3,809
Peru	1991-92	25	82	42	97	29	86	45	96	5	30	12,314	16	22	36	35	7,991
ASIA																	
Bangladesh	1993-94	74	100	51	96	48	96	X	X	47	77	8,936	11	13	40	35	3,595
Indonesia	1994	77	98	X	X	16	58	79	99	16	40	33,626	12	12	33	27	15,870
Jordan	1990	X	X	X	X	X	X	X	X	X	X	X	9	8	16	15	7,955
Kazakhstan, Rep	1995	9	68	26	98	60	96	7	29	4	12	4,180	15	16	20	11	779
Pakistan	1990-91	53	95	100	100	X	X	66	96	28	70	7,285	15	14	37	32	5,833
Philippines	1993	56	88	37	57	42	66	58	87	X	X	12,432	10	10	32	34	8,493
Turkey	1993	25	58	16	89	23	58	5	26	3	10	8,271	23	28	25	32	3,531

Sources and Technical Notes

Data Table 8.1

Nutrition, 1971–96

Sources: Low-birthweight infants, under-5 children suffering from underweight, wasting and stunting, daily per capita calorie supply as a percentage of total requirements, and households consuming iodized salt: United Nations Children's Fund (UNICEF), *State of the World's Children 1997* (UNICEF, New York, 1997), including information from World Health Organization (WHO), Demographic and Health Surveys, and Multiple Indicator Cluster Surveys. Pregnant women aged 15–49 with anemia: United Nations (U.N.) Statistical Division, Department for Economic and Social Information and Policy Analysis, *Women's Indicators and Statistics* (Wistat Version 3.0, New York; 11 disks). Total goiter rate in children aged 6–11: WHO, *Global Prevalence of Iodine Deficiency Disorders* (WHO, Geneva, 1993). Children under 5 with vitamin A deficiency: WHO, *Global Prevalence of Vitamin A Deficiency* (WHO, Geneva, 1995).

The *percentage of low-birthweight infants* refers to all babies weighing less than 2,500 grams at birth. WHO has adopted the standard that healthy babies, regardless of race, should weigh more than 2,500 grams at birth. These data are provided by UNICEF and WHO, and refer to a single year between 1990 and 1994.

Underweight refers to children under 5 whose weight-for-age is below minus 2 standard deviations (for moderate underweight) or below minus 3 standard deviations (for severe underweight) from the median weight-for-age of the reference population. *Wasting* indicates current acute malnutrition and refers to the percentage of children under 5 whose weight-for-height is below minus 2 standard deviations from the median of the reference population, as defined by the U.S. National Center for Health Statistics (NCHS). *Stunting*, an indicator of chronic undernutrition, refers to the percentage of children under 5 whose height-for-age is below minus 2 standard deviations from the median of the reference population. NCHS, among others, has found that healthy children in one country differ little, as a group, in terms of weight and height from healthy children in other countries. WHO has accepted the NCHS weight-for-age and weight-for-height standards; however, several countries still use local reference populations, and the estimates provided may use several sources, rather than solely or primarily the WHO database. Children with low weight-for-age are at a high risk of mortality. Data on wasting and stunting, provided to UNICEF by WHO, refer to a single year between 1990 and 1996. Data for wasting and stunting are generally good if derived from recent national household surveys, such as the Demographic and Health Surveys, but are not good if they are old or from local subnational studies.

Daily per capita calorie supply as a percentage of total requirements are calories from all food sources: domestic production, international trade, stock draw-downs, and foreign aid. The quantity of food available for human consumption, as estimated by the Food and Agriculture Organization of the United Nations (FAO), is the amount that reaches the consumer. Per capita supplies by weight are derived from the total supplies available for human consumption by dividing the quantities of food by the total population actually partaking of the food supplies during the reference period. In almost all cases, the population figures used are the midyear estimates published by the U.N. Population Division. The calories actually consumed may be lower than the figures shown, depending on how much food is lost during home storage, preparation, and cooking, and on how much is fed to pets and domestic animals or discarded. Estimates of daily caloric requirements vary for individual countries according to the population's age distribution and estimated level of activity. For further information on FAO data, visit the FAO web site at: <http://www.fao.org>.

The *percentage of pregnant women aged 15–49 with anemia* is an indicator of nutritional status, dietary practices, and prenatal care. A woman becomes especially susceptible to iron-deficiency while pregnant and where malnutrition is widespread. Anemia can be easily treated with iron supplements.

The *percentage of children aged 6–11 with goiter* is the percentage with a visible goiter. Iodine deficiency is at least partially due to environmental causes and is found in areas with iodine-depleted soils due to leaching and floods, in mountainous areas, and in high-elevation areas subject to high rainfall. Iodine deficiency is the world's greatest single cause of preventable brain damage and mental retardation. *Percentage of households consuming iodized salt* is derived from surveys at the household level conducted by UNICEF, called Multiple Indicator Cluster Surveys.

The *percentage of children under 5 with vitamin A deficiency* is the percentage of the under-5 population affected by vitamin A deficiency, including those affected clinically and subclinically. Vitamin A deficiency is at least partially due to environmental causes and is found in areas with water shortages and high, constant temperatures. Vitamin A deficiency is the most important cause of childhood blindness. Criteria used to define the severity of vitamin A deficiency include prevalence of clinical eye signs (e.g., corneal scars) or symptoms (e.g., nightblindness) and low blood values (or plasma retinol levels). For more detailed information, see the WHO publication on vitamin A deficiency cited previously.

Data Table 8.2

Mortality, 1975–2020

Sources: Crude death rate and infant mortality rate data: United Nations (U.N.) Population Division, *World Population Prospects 1950–2050 (The 1996 Revision)*, on diskette (U.N., New York, 1996). Under-5 mortality rate, average annual change in under-5 mortality, and maternal mortality rate: United Nations Children's Fund (UNICEF), *State of the World's Children 1997* (UNICEF, New York, 1997), including information from the U.N. Population Division, U.N. Statistical Division, the World Bank, the U.S. Bureau of Census, and the World Health Organization (WHO).

The *crude death rate* is derived by dividing the number of deaths in a given year by the midyear population and multiplying by 1,000. The *infant mortality rate* is the probability of dying by exact age 1, multiplied by 1,000.

The *under-5 mortality rate* is the probability of dying by exact age 5, multiplied by 1,000. UNICEF provides this cohort measure, which is derived from *Child Mortality Since the 1960s: A Database for Developing Countries* (U.N., New York, 1992) and from infant mortality estimates provided by the U.N. Population Division. The mix is the result of a move from modeled estimates to estimates based on a periodically updated child mortality database. Nonetheless, this variable should not be compared to the U.N. Population Division's infant mortality rate, which is derived from population models where otherwise not available.

The *average annual change in under-5 mortality* is UNICEF's separate estimate of the average annual reduction in the rate of children dying between birth and exact age 5 for the range of years specified (either 1960–80 or 1980–95).

The *maternal mortality rate* is the annual number of deaths from pregnancy- or childbirth-related causes per 100,000 live births. A maternal death is defined by WHO as the death of a woman while pregnant or within 42 days of the termination of pregnancy from any cause related to or aggravated by the pregnancy, including abortion. Most official maternal mortality rates are underestimated because of underreporting, incorrect classification, and unavailable cause of death information. In some countries, over 60 percent of women's deaths are registered without a specified cause. Maternal deaths are highest among women aged 10–15 years, over 40 years, and in women with five or more children. Data are provided to UNICEF by WHO and refer to a single year between 1980 and 1990. Data for a few countries are outside the range of years indicated. The models used for deriving estimates of maternal mortality are relatively new. In addition, in many cases it is difficult to estimate the number of maternal deaths outside a hospital setting. For the data presented in this table, UNICEF

states that: "Several of the maternal mortality rates . . . are substantially different from official government estimates. These and other rates are being reviewed by WHO and UNICEF and will be revised where necessary, as part of the ongoing process of improving maternal mortality estimates."

Data Table 8.3

Reported Cases of Infectious Diseases per 100,000 Population, 1985–95

Source: World Health Organization (WHO). Tuberculosis, measles, polio, and cholera data: published in various issues of the *Weekly Epidemiological Record* and in the *World Health Report* (WHO, Geneva). WRI obtained electronic data for the years included in this table. Malaria data (number of reported cases): published in various *World Malaria Situation* reports. Data for 1994 and 1995 are published in the corresponding *World Health Report*.

Data presented in this table are reported cases of *tuberculosis*. In 1995, the Global Tuberculosis Programme developed a global monitoring and surveillance project to describe the magnitude of the worldwide tuberculosis epidemic and assess the status of control measures. The project's first year results, reported in 1997 by WHO, show discrepancies between reported case rates and incidence estimates for tuberculosis for 1995, with incidence estimates generally higher than case notification rates. See the above sources for further information.

Measles data are the number of measles cases reported by WHO member states to WHO, published biannually. WHO is currently trying to improve the completeness of 1995 and 1996 data. A large percentage of measles cases are not treated at a health facility and therefore remain unreported. Thus, these case data are an underestimate of the actual number of cases.

Malaria data are the officially reported malaria cases from WHO member states to WHO, published annually. The majority of malaria cases are not treated at a health facility and remain unreported, particularly in areas known to be highly endemic. In line with the Global Malaria Control Strategy that was adopted in 1992, malaria reporting must focus primarily on clinical disease. The data for 1994 still mark the transition in reporting: some countries report clinically diagnosed cases, others report microscopically confirmed infections, or a combination of both.

Polio is rapidly disappearing from significant areas of the world. When the global polio eradication goal was set in 1988, approximately 35,000 cases were reported worldwide. In 1995, that number had fallen to 7,000, an 80 percent decline. Although reporting for 1996 is incomplete, significant declines are anticipated. It should be noted, though, that many cases of polio are not reported. It is estimated that the reported total represents only 10 percent of the cases that actually occur.

Cholera data are based on official reports from countries to the WHO regional offices, as well as on reports from scientific literature and qualified laboratories, summarized by the Global Task Force on Cholera Control at WHO headquarters.

For more extensive information see WHO's Web site at: <http://www.who.ch>.

Data Table 8.4

Health Care, 1971–96

Sources: Percentage of births attended by trained personnel; percentage of 1-year-olds immunized against tuberculosis (TB), against diphtheria, pertussis (whooping cough), and tetanus (DPT), and against polio; percentage of pregnant women immunized for tetanus; oral rehydration therapy (ORT) use: United Nations Children's Fund (UNICEF), *State of the World's Children 1997* (UNICEF, New York, 1997). Contraceptive prevalence: United Nations (U.N.) Population Division, *World Population Prospects, 1950–2050 (The 1996 Revision)*, on diskette (U.N., New York, 1996). Percentage of 1-year-olds immunized against measles: WHO and personal communication with Rachel Horner, WHO, March 1997. Population per doctor and nurse: the World Bank, *World Development Indicators* (The World Bank, Washington, D.C., 1997), including information from government statistical yearbooks, the Organisation for Economic Co-Operation and Development, and the World Health Organization (WHO).

Percentage of births attended by trained personnel is the percentage of births attended by physicians, nurses, midwives, or primary health care workers trained in midwifery skills. *Immunization* data show the percentage of 1-year-olds immunized against: TB, DPT, polio, and measles, as well as the *percentage of pregnant women immunized for tetanus*. *ORT use* refers to the percentage of all cases of diarrhea in children under 5 years of age treated with oral rehydration salts or recommended home fluids to combat diarrheal diseases leading to dehydration or malnutrition.

Contraceptive prevalence is the percentage of contraceptive use of either any method or modern methods among couples in which the woman is of childbearing age (15–49). Among the contraceptive methods used are sterilization, oral and injectable contraceptives, condoms, intrauterine devices, vaginal barriers (including diaphragms, cervical caps, and spermicides), and traditional methods (including rhythm, withdrawal, abstinence, douching, and folk remedies). Data are collected by the U.N. Population Division and by Demographic and Health Surveys.

Population per doctor and *per nurse* refers to data mainly from WHO's second evaluation of progress in implementing national health-for-all strategies. These data for developing countries are supplemented by country statistical yearbooks and by World Bank sector studies. The comparability of WHO's physician ratios are influenced by treatments received from practitioners of indigenous medicine not included in WHO's definition of a

physician and by the variation in data included on the use of homeopaths and osteopaths across countries. Thus, the data presented in the table indicate availability rather than quality or use; they do not show training of physicians or whether hospitals or medical centers are well equipped. Physicians are defined as graduates of any faculty or school of medicine who are working in the country in any medical field (practice, teaching, or research). Nurses are defined as persons who have completed a program of basic nursing education; are qualified and registered or authorized to provide service for the promotion of health, prevention of illness, care of the sick, and rehabilitation; and are working in the country. These data do not cover auxiliary and paraprofessional personnel.

Data Table 8.5

City Air Pollution, 1990–95

Sources: City population: United Nations (U.N.) Population Division, *Urban and Rural Agglomerations 1950–2015 (The 1996 Revision)*, on CD-Rom (U.N., New York, 1997); *World Cities Population Database* (WCPD), Birkbeck College, University of London, 1995; *Information Malaysia: 1996 Yearbook* (personal communication with Malaysian Embassy, January 1998); National Institute of Public Health and the Environment (RIVM) and Norwegian Institute for Air Research (NILU), *Air Quality In Major European Cities*, R.J.C.F. Sluyter, ed. (RIVM, Biltoven, Netherlands and NILU, Kjeller, Norway, 1995); and City Net home page at: <http://www.city.net>. Primary sources for levels of total suspended particulates (TSP), black smoke (BS), particulate matter (PM-10), sulfur dioxide (SO₂), and nitrogen dioxide (NO_x) include: World Health Organization (WHO), *Healthy Cities Air Management*, Information System, AMIS 1.0, on diskette (WHO, Geneva, 1997); U.S. Environmental Protection Agency (EPA), *AIRS Executive International* (U.S. EPA, Research Triangle Park, North Carolina). Available online at: www.epa.gov/airs/aexec.html; U.S. EPA, *Air Quality and Emissions Trends Report 1995* (U.S. EPA, Research Triangle Park, North Carolina, 1996); and Organisation for Economic Co-Operation and Development (OECD), *Environmental Data*, Compendiums (OECD, Paris, 1992, 1993, 1995, and 1997); National Environmental Protection Agency, China, *China Environment Yearbook* (China Environmental Yearbook Press, Beijing, 1996); India Central Pollution Control Board, *Ambient Air Quality—Status and Statistics* (Central Pollution Control Board, Delhi, India, 1993 and 1994).

Additional sources of air pollution data for one city or several include: United Nations Environment Program (UNEP) and WHO, *Urban Air Pollution in Megacities of the World* (Blackwell Publishers, Oxford, U.K., 1992); The World Bank, *World Development Indicators 1997* (The World Bank, Washington, D.C., 1997); National Statistical Office, Republic of Korea, *Korea Statistical Yearbook 1995*, 42nd edition (National Statistical Office, Seoul, Korea, 1995); City of Yokohama Environ-

mental Affairs Bureau, 1995; Department of the Environment, Malaysia, *Environmental Quality Report 1993* (Department of the Environment, Kuala Lumpur, Malaysia, 1994); Ministry of the Environment, Singapore, *1995 Pollution Control Report and Annual Report* (Ministry of the Environment, Singapore, 1995); Isabelle Romieu, Henryk Weitzenfeld, and Jacob Finkelman, "Urban Air Pollution in Latin America and the Caribbean: Health Perspectives," *World Health Statistics Quarterly*, Vol. 43 (1990); and National Institute of Public Health and the Environment (RIVM) and Norwegian Institute for Air Research (NILU), *Air Quality in Major European Cities*, Part I: Scientific Background Document to Europe's Environment, R.J.C.F. Sluyter, ed. (RIVM, Biltoven, Netherlands and NILU, Kjeller, Norway, 1995)

Cities are included in this table based on the availability of air pollution data, population size, and regional representation.

The U.N. provides estimated and projected populations for major urban agglomerations of the world. Estimates and projections are based, to the extent possible, on actual recorded data. For a complete description of the sources of data for urban populations, see U.N. Population Division, *World Urbanization Prospects: The 1996 Revision* (U.N., New York, 1997). The *World Cities Population Database* provides close approximations of a global georeferenced data set of cities and their populations.

Particulate matter is the general term for solid or liquid particles found in the atmosphere. Data for *total suspended particulates (TSP)* are presented in micrograms per cubic meter ($\mu\text{g}/\text{m}_3$). WHO's 1987 mean annual guideline for TSP is $90 \mu\text{g}/\text{m}_3$. *Black smoke and particulate matter (PM-10)* are additional measures of suspended particulates. Black smoke includes particles large or dark enough to be seen as soot or smoke. PM-10 includes smaller particles that are likely to be responsible for adverse health effects because they can reach the lower respiratory tract. PM-10 includes particles with an aerodynamic size less than or equal to a standard particle with a diameter of 10 micrometers (0.0004 inches). WHO's 1987 mean annual guideline for black smoke is $50 \mu\text{g}/\text{m}_3$; for PM-10, it is $70 \mu\text{g}/\text{m}_3$. The 1997 WHO air quality guidelines do not include guideline values for suspended particulate matter. For further information, see the WHO Web site at: <http://www.who.ch>.

Sulfur dioxide (SO₂) belongs to the family of sulfur oxide gases. The major health concerns associated with exposure to high concentrations of SO₂ include effects on breathing, respiratory illness, alterations in the lungs' defenses, and aggravation of existing cardiovascular disease. Levels of SO₂ in the air are presented in micrograms per cubic meter ($\mu\text{g}/\text{m}_3$). WHO's mean annual 1997 guideline for SO₂ is $50 \mu\text{g}/\text{m}_3$.

Nitrogen dioxide (NO₂) belongs to a family of poisonous, highly reactive gases called oxides of nitrogen. NO₂ can irritate the lungs and lower resistance to respiratory infections such as influenza. NO₂ levels in the air are presented in micrograms

per cubic meter ($\mu\text{g}/\text{m}_3$). WHO's mean annual 1997 guideline for NO₂ is $50 \mu\text{g}/\text{m}_3$.

Data Table 8.6

Lead in Gasoline and Lead Production, 1986–96

Sources: Consumption of motor gasoline: United Nations (U.N.) Department of Economic and Social Information and Policy Analysis, Statistics Division, *1995 Energy Statistics Yearbook* (U.N., New York, 1997). Cost of gasoline per liter: The World Bank, *Air Pollution from Motor Vehicles, Standards and Technologies for Controlling Emissions* (The World Bank, Washington, D.C., 1996). Market share of leaded gasoline and maximum concentration of lead in gasoline: The World Bank, *Phasing-out Lead From Gasoline: World-Wide Experience and Policy Implications*, Annex A update (The World Bank, Washington, D.C., 1996, 1997); and The World Bank, *Elimination of Lead in Gasoline in Latin America and the Caribbean*, Report No. 194/97EN, Energy Sector Management Assistance Programme (The World Bank, Washington, D.C., 1996). Lead production from mines and refineries: U.S. Geological Survey.

One of the oldest metals used by humans, *lead* is a cumulative neurotoxin that impairs brain development among children and has been connected to elevated blood pressure and resulting hypertension, heart attacks, and premature death in adults. Emissions from vehicles is the largest source of lead exposure in many urban areas.

Consumption of motor gasoline is the amount of motor gasoline consumed per country in 1995, reported by the U.N. in thousand metric tons, converted to million liters (1 metric ton = 1,351 liters). *Gasoline cost per liter* is reported by the World Bank for 1996 in U.S. dollars per liter. *Market share of leaded gasoline* is the percentage of gasoline containing lead sold in each country. *Maximum concentration of lead in gasoline* is the maximum content of lead in gasoline sold in the country reported in grams per liter, although actual lead content may vary.

Lead toxicity also presents health problems for those involved in its production, causing concern about emissions from lead smelters and refineries, workers' blood-lead levels, and in-plant permissible exposure limits. *Lead production from mines* and from *refineries* is the amount of lead produced in thousand metric tons. Lead production from mines is reported as the quantity contained in concentrates. In mining, a concentrate is the fraction of valuable mineral that has been separated from the valueless or unneeded rock and earth. The concentrate (enriched ore) provides the appropriate material for subsequent smelting and refining. Lead production from refineries is reported according to *primary* production (derived from the mining of ores) and *secondary* production (derived from recycled materials).

For further information on lead, please visit the U.S. Geological Survey Minerals Information Web

site at: <http://minerals.er.usgs.gov/minerals/pubs/commodity/lead>.

Data Table 8.7

Demographic and Health Surveys (DHS), 1990–95

Source: Demographic and Health Surveys (DHS), Macro International, Inc., Calverton, Maryland.

Since 1984, the DHS program has assisted countries in conducting national surveys on fertility, family planning, and maternal and child health. Macro International, Inc., provides technical assistance and administrative support for the DHS program, which is funded by the U.S. Agency for International Development. Surveys are implemented in collaboration with agencies in participating countries, usually the Bureau of Statistics, Ministry of Planning, or Ministry of Health.

The main objectives of the DHS program are to improve the information base for policy development, economic and social planning, and population and health program management; to promote the widespread dissemination and use of DHS data by policymakers and planners; to expand the institutional capabilities in participating countries for collecting and analyzing survey data; and to advance the methodologies and procedures for conducting and analyzing demographic and health surveys.

The first two phases of the DHS project included assistance for more than 50 surveys (Phase I surveys were conducted between 1986 and 1990; Phase II surveys were conducted between 1990 and 1993). In its third phase, the DHS program will provide technical assistance for at least 30 surveys conducted between 1993 and 1997. The present table includes data from surveys conducted in the second and third phases of the DHS program. Data collected in Phase II include: Brazil, Burkina Faso, Cameroon, Dominican Republic, Egypt, Jordan, Madagascar, Morocco, Namibia, Niger, Nigeria, Pakistan, Paraguay, Peru, Rwanda, Senegal, Tanzania, and Zambia. All other countries included in the table represent data collected from Phase III surveys.

On average, 4,000 to 8,000 women of childbearing age are interviewed in a standard survey. The DHS questionnaires are designed to elicit information on family planning knowledge, attitudes, and practices; maternal and child health; nutritional status of women and their children; and social and economic background indicators.

Percentage of households without piped water presents the percentage of urban and rural households included in the surveys (maximum 33,626 from Indonesia, minimum 3,362 from Senegal) without piped water into their residences; these households rely instead on other water sources such as a public tap, well water, surface water, rainwater, or bottled water.

Percentage of households without own flush toilet presents the percentage of urban and rural households included in the surveys (maximum 12,432

from the Philippines, minimum 3,358 from Senegal) without their own flush toilet; these households rely instead on other sanitation facilities, such as a pit toilet or no facility.

Percentage of households without a finished floor presents the percentage of urban and rural households included in the surveys (maximum 33,600 from Indonesia, minimum 3,357 from Senegal) without a finished floor. A finished floor could include polished wood, vinyl, tiles, cement, or carpeting. Unfinished floors include natural floors of dirt or dung, as well as wood planks, palm, or bamboo.

Percentage of households without a refrigerator presents the percentage of urban and rural house-

holds included in the surveys (maximum 33,615 from Indonesia, minimum 3,352 from Senegal) without a refrigerator.

Percentage of households without a radio or television presents the percentage of urban and rural households included in the surveys (maximum 33,616 from Indonesia, minimum 3,352 from Senegal) without a radio or television.

Children under 5 with diarrhea presents the percentage of children under age 5 in urban and rural households included in the surveys (maximum 15,870 from Indonesia, minimum 779 from the Republic of Kazakhstan) with diarrhea in the 2 weeks preceding the survey.

Children under 5 with a cough presents the percentage of children under age 5 in urban and rural households included in the surveys (maximum 15,864 from Indonesia, minimum 779 from Republic of Kazakhstan) with a cough in the 2 weeks preceding the survey.

Additional information about the DHS program and data sets may be obtained from Demographic and Health Surveys, Macro International, Inc., Suite 300, 11785 Beltsville Drive, Calverton, Maryland 20705-3119; telephone: 301-572-0200, fax: 301-572-0993, and Web site: <http://www.macrint.com/dhs/>.