### Image: 218 Reproductive health

	Total fertility rate		Adolescent fertility rate	Unmet need for contraception	Contraceptive prevalence rate	Newborns protected against tetanus	Pregnant women receiving prenatal care	Births attended by skilled health staff		Maternal mortality ratio	
	birth wor <b>1990</b>	s per man <b>2007</b>	births per 1,000 women ages 15–19 <b>2007</b>	% of married women ages 15–49 <b>2002–07<sup>a</sup></b>	% of married women ages 15–49 <b>2002–07<sup>a</sup></b>	% of births <b>2007</b>	% 2002–07 <sup>a</sup>	% c 1990	of total <b>2002–07<sup>a</sup></b>	per 100,000 National estimates 1990–2007 <sup>a</sup>	0 live births Modeled estimates 2005
Afghanistan		•••		••							
Albania	2.9	1.8	16		60	87	97	••	100	20	92
Algeria	4.6	2.4	7		61	70	89	77	95	117	180
Angola	7.1	5.8	138			81	80		47		1,400
Argentina	3.0	2.3	57				99	96	99	48	77
Armenia	2.5	1.7	30	13	53		93		98	16	76
Australia	1.9	1.9	14	••	••		••	100	100	••	4
Austria	1.5	1.4	12					••			4
Azerbaijan	2.1	2.0	29	23	56		<i>[ ]</i>	••	89 19	29	570
Belarus	4.3	2.0	22	11	73	91	00	••	100	12	18
Relgium	1.9	1.3	7		13		33	••	100	12	8
Benin	6.7	5.4	120			93	 84	••	 74	 397	840
Bolivia	4.9	3.5	78	23	58	71	79	 43	67	229	290
Bosnia and Herzegovina	1.7	1.2	20	23	36	85	99	97	100	9	3
Botswana	4.6	2.9	52			78		77		326	380
Brazil	2.8	2.2	89			93	97	72	97	53	110
Bulgaria	1.8	1.4	40			65			99	7	11
Burkina Faso	7.3	6.0	126	29	17	80	85	••	54	484	700
Burundi	6.8	6.8	55		9	78	92		34	615	1,100
Cambodia	5.7	3.2	42	25	40	87	69		44	472	540
Cameroon	5.9	4.3	118	20	29	81	82	58	63	669	1,000
Canada	1.8	1.6	14			82		••	100		7
Central African Republic	5.6	4.6	115		19	54	69	••	53	543	980
Chad	6.7	6.2	164	21	3	60	39	••	14	1,099	1,500
Chile	2.6	1.9	60		58				100	20	16
China	2.1	1.7	8		85	••	90	50	98	41	45
Hong Kong, China	1.3	1.0	5						100		
Condo Dom Bon	3.0	2.5	222	0	18	18	94	82	90	1 220	1 1 0 0
Congo, Deni, Rep.	53	0.5	115	16		00	00 86	••	/4 82	1,209	740
Costa Rica	3.0	+.J	71	10	96	30	92 92	 98	90	36	30
Côte d'Ivoire	6.5	45	107	 29	13		85	50	57	543	810
Croatia	1.6	1.4	14			97	100	 100	100	10	7
Cuba	1.7	1.5	47	8	77		100		100	21	45
Czech Republic	1.9	1.4	11						100	8	4
Denmark	1.7	1.9	6			••		••	••	10	3
Dominican Republic	3.3	2.4	108	11	73	85	99	93	98	159	150
Ecuador	3.6	2.6	83		73	67	84		75	107	210
Egypt, Arab Rep.	4.3	2.9	39	10	59	85	70	37	74	84	130
El Salvador	3.7	2.7	81		67	87	86	52	92	71	170
Eritrea	6.2	5.0	72	27	8	80	70		28	998	450
Estonia	2.0	1.6	21				••	••	100	7	25
Ethiopia	6.8	5.3	94	34	15	85	28	••	6	673	720
Finland	1.8	1.8	9				••	••	100	6	
Cabon	1.8	2.0	1						••	10	ک دد
Gambia The	4.1	3.1 17	82 104			10				519 720	520
Georgia	2.0	4.1 1 /	104 20	••	 A7	3U Q7	Э0 QЛ	44	ບ ເ ດຂ	130	080
Germany	∠.⊥ 1 5	1.4 1.4	30 Q	••	41	01	34	••	90 100	∠⊃ Q	00 Л
Ghana	5.7	3.8	55			 88	 92	 40	50	o	560
Greece	1.4	1.4	9			69				 1	
Guatemala	5.6	4.2	107		43	80		··· ··	 41	133	290
Guinea	6.6	5.4	149	21	9	95	82	31	38	980	910
Guinea-Bissau	7.1	7.1	188		10	92	78		39	405	1,100
Haiti	5.4	3.8	46	38	32	43	85	23	26	630	670



# Reproductive health

	Total fertility rate		Adolescent fertility rate	Unmet need for contraception	Contraceptive prevalence rate	Newborns protected against tetanus	Pregnant women receiving prenatal care	Births attended by skilled health staff		Maternal mortality ratio	
	birth: wor <b>1990</b>	s per nan <b>2007</b>	births per 1,000 women ages 15–19 <b>2007</b>	% of married women ages 15–49 <b>2002–07</b> ª	% of married women ages 15–49 <b>2002–07</b> <sup>a</sup>	% of births <b>2007</b>	% 2002–07 <sup>a</sup>	% of total <b>1990 2002–07</b> ª		per 100,000 live births National Modeled estimates estimates 1990-2007 <sup>a</sup> 2005	
Honduras	5.1	3.3	93	17	65	94	92	45	67	108	280
Hungary	1.8	1.3	19			••			100	8	6
India	4.0	2.7	62	13	56	86	74		47	301	450
Indonesia	3.1	2.2	40	9	61	83	93	32	72	307	420
Iran, Islamic Rep.	4.8	2.0	20	••	79	83	••	••	97	25	140
Iraq	5.9						••	54	••	294	
Ireland	2.1	1.9	16				••	••	100	6	1
Israel	2.8	2.9	14			••		••		5	4
Italy	1.3	1.3	6			52	••	••	99		3
Jamaica	2.9	2.4	78		69	54	91	79	97	95	170
Japan	1.5	1.3	3			86		100	100	8	6
Jordan	5.4	3.6	25	11	57	87	99	87	99	41	62
Kazakhstan	2.7	2.4	31		51		100		100	70	140
Kenya	5.8	5.0	104	25	39	74	88	50	42	414	560
Korea, Dem. Rep.	2.4	1.9	1			91	••		97	105	370
Korea, Rep.	1.6	1.3	4					98	100	20	14
Kurduz Popublio	3.5	2.2	21			83		••	100	5 104	150
	5.1 6.1	2.1	72	±	20	02 47	97	••	90	104	100
	2.0	3.Z	17	••	30	47	••	••	 100	405	10
Lebanon	2.0	1.4 2.2	25	••		 72	 96	••	98	5	150
Lesotho	4 9	3.4	73		37	76	90	••	55	 762	960
Liberia	6.9	5.2	219	36	11	89		••	46	102	1,200
Libva	4.7	2.7	3							77	97
Lithuania	2.0	1.4	18						100	13	11
Macedonia, FYR	2.0	1.4	21	34	14		98		98	21	10
Madagascar	6.2	4.8	133	24	27	72	80	57	51	469	510
Malawi	6.9	5.6	135	28	42	86	92	55	54	807	1,100
Malaysia	3.7	2.6	13			89	79		98	28	62
Mali	7.4	6.5	179	31	8	89	70		45	464	970
Mauritania	5.8	4.4	85			60		40		747	820
Mauritius	2.3	1.7	41		76	86	••	91	99	22	15
Mexico	3.4	2.1	65		71	87		••	93	62	60
Moldova	2.3	1.7	32	7	68		98		100	16	22
Mongolia	4.0	1.9	45	14	66	87	99		99	90	46
Morocco	4.0	2.4	19	10	63	85	68	31	63	227	240
Mozambique	6.2	5.1	149	18	17	82	85	••	48	408	520
Myanmar	3.4	2.1	16		34	91			68	316	380
Namibia	5./	3.6	59		55	82	95	68	81	271	210
Nepai	5.1	3.0	115	25	48	83	44	(	19	281	830
Neurenanus	1.0	1.1	2			••	••	••	100	15	0
Nicaradua	2.2 1 7	2.2	113	••	 72			••	 7/	1J 	170
Nider	7.0	2.0	196		12	72	46	 15	22	648	1 800
Nigeria	6.7	5.3	126	17	13	53	58	33	35	040	1 100
Norway	1.9	1.9	8		10			100			7
Oman	6.5	3.0	10	••	••	 95	••	100	 98	13	64
Pakistan	6.1	3.9	36	25	30	81	 61	 19	39	533	320
Panama	3.0	2.6	83						91	66	130
Papua New Guinea	4.8	3.8	51			60			42		470
Paraguay	4.5	3.1	72		73	81	94	66	77	121	150
Peru	3.9	2.5	60	8	71	82	91	80	71	185	240
Philippines	4.3	3.2	47	17	51	65	88		60	162	230
Poland	2.0	1.3	13						100	3	8
Portugal	1.4	1.3	13			••	••	98	••	8	11
Puerto Rico	2.2	1.8	47				••	••	100	••	18

## 2.18 Reproductive health

	Total fertility rate		Adolescent fertility rate	Unmet need for contraception	Contraceptive prevalence rate	Newborns protected against tetanus	Pregnant women receiving prenatal care	Births attended by skilled health staff		Maternal mortality ratio	
	birth: won <b>1990</b>	s per nan <b>2007</b>	births per 1,000 women ages 15–19 <b>2007</b>	% of married women ages 15–49 <b>2002–07<sup>a</sup></b>	% of married women ages 15–49 <b>2002–07<sup>a</sup></b>	% of births <b>2007</b>	% 2002–07 <sup>a</sup>	% o <b>1990</b>	f total <b>2002–07</b> ª	per 100,000 National estimates 1990-2007 <sup>a</sup>	D live births Modeled estimates <b>2005</b>
Romania	1.8	1.3	32		70		94		98	15	24
Russian Federation	1.9	1.4	28			••	••		100	24	28
Rwanda	7.4	5.9	40	38	17	82	94	26	39	750	1,300
Saudi Arabia	5.9	3.2	28	••		56	••		96	10	18
Senegal	6.5	5.1	87	32	12	86	87		52	401	980
Serbia	1.8	1.4	24	29	41		98	••	99	13	14 <sup>0</sup>
Sierra Leone	6.5	6.5	160		5	94	81	••	43	1,800	2,100
Singapore	1.9	1.3	5			4	••		100	6	14
Slovak Republic	2.1	1.3	20			73			100	4	6
Slovenia	1.5	1.4	7	••		74		100	100	17	6
Somalia	6.8	6.0	66	••	15	68	26		33	1,044	1,400
South Africa	3.5	2.1	61		60	72	92	••	92	166	400
Spain	1.3	1.4	9			/2		••		6	4
Sri Lanka	2.5	1.9	25		68	91	99		99	43	58
Sudan	5.9	4.2	57	6		12	70	69	49		450
Swadan	2.0	3.0	33	24	LC	00	00	••	09	009 5	390
Switzerland	2.1	1.5	4	••		03	••	••	 100	5	5
Svrian Arab Republic	5.4	3.1	35			93	 84	••	03	65	130
Taiikistan	5.1	33	28	••	38	88	80		83	97	170
Tanzania	6.1	5.2	121		26	88	78	 53	43	578	950
Thailand	2.1	1.9	42		77	89	98		97	12	110
Timor-Leste	5.5	6.5	54		20	59	61		18		380
Togo	6.4	4.8	89		17	82	84	31	62	478	510
Trinidad and Tobago	2.4	1.6	35		43		96		98	45	45
Tunisia	3.5	2.0	7			96		69	••	69	100
Turkey	3.0	2.2	37		71	69	81	••	83	29	44
Turkmenistan	4.2	2.5	16		48		99	••	100	14	130
Uganda	7.1	6.7	152	41	24	85	94	38	42	435	550
Ukraine	1.8	1.2	28		67		99		99	17	18
United Arab Emirates	4.3	2.3	18				••	••	100	3	37
United Kingdom	1.8	1.9	24		84		••	••	••	7	8
United States	2.1	2.1	42					99	99	8	11
Uruguay	2.5	2.0	61				••		99	35	20
Uzbekistan	4.1	2.4	34	8	65	87	99	••	100	28	24
Venezuela, RB	3.4	2.6	90			51			95	61	57
Vietnam	3.6	2.1	1/	5	76	86	91	••	88	162	150
West Bank and Gaza	6.3	4.6	79	••	50		99		99		
Yemen, Rep.	8.0	5.5	/1		28	52	41	16	36	365	430
Zampla	6.4 E 1	0.Z	125 50	21 12		89 79	93	51	43	129	830
Zimbabwe	3.1 2.2 w	3.1 2.5 v	59 v 52 v	15	60 %	10	94 91 w	70 50 w	65 11	555	400 w
Low income	5.2 W	2.5 w	95 V	21	33		67	50 W	42		780
Middle income	3.0	2 22	42		68	10	86	 49	-72 74		260
Lower middle income	3.1	2.2	39		69		84	45	69		300
Upper middle income	2.7	2.0	56					10	95		97
Low & middle income	3.5	2.7	56		60			46	62		440
East Asia & Pacific	2.4	1.9	17		78		90	48	87		150
Europe & Central Asia	2.3	1.7	29						95		44
Latin America & Carib	3.2	2.4					 95	 72	89	••••••	130
Middle East & N. Africa	4.8	2.8	30		62	78	76	48	80		200
South Asia	4.2	2.9	67	14	53	85	69	32	41		500
Sub-Saharan Africa	6.3	5.1	118	24	23	75	72		45		900
High income	1.8	1.8	22	••					99		10
Euro area	1.5	1.5	8								5

a. Data are for most recent year available. b. Includes Montenegro.

#### About the data

Reproductive health is a state of physical and mental well-being in relation to the reproductive system and its functions and processes. Means of achieving reproductive health include education and services during pregnancy and childbirth, safe and effective contraception, and prevention and treatment of sexually transmitted diseases. Complications of pregnancy and childbirth are the leading cause of death and disability among women of reproductive age in developing countries.

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

More couples in developing countries want to limit or postpone childbearing but are not using effective contraception. These couples have an unmet need for contraception. Common reasons are lack of knowledge about contraceptive methods and concerns about possible side effects. This indicator excludes women not exposed to the risk of unintended pregnancy because of menopause, infertility, or postpartum anovulation.

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

An important cause of infant mortality in some developing countries, neonatal tetanus can be prevented through immunization of the mother during pregnancy. As in last year's edition, the data on tetanus in the table are estimated by the "protection at birth" model, which tracks the immunization status of women of child-bearing age. The estimates account for the number of vaccine doses received and the time since the mother's last immunization. A currently immune woman's child is considered protected. Because the methodology behind this indicator has changed, these data cannot be compared with those in editions before 2008.

Good prenatal and postnatal care improve maternal health and reduce maternal and infant mortality. But data may not reflect such improvements because health information systems are often weak, maternal deaths are underreported, and rates of maternal mortality are difficult to measure.

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

The national estimates of maternal mortality ratios in the table are based on national surveys. vital registration records, and surveillance data or are derived from community and hospital records. The modeled estimates are based on an exercise by the World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), and World Bank. For countries with complete vital registration systems with good attribution of cause of death, the data are used as reported. For countries with national data either from complete vital registration systems with uncertain or poor attribution of cause of death or from household surveys reported maternal mortality was adjusted, usually by a factor of underenumeration and misclassification. For countries with no empirical national data (about 35 percent of countries), maternal mortality was estimated with a regression model using socioeconomic information, including fertility, birth attendants, and GDP. Neither set of ratios can be assumed to provide an exact estimate of maternal mortality for any of the countries in the table.

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

### Definitions

· Total fertility rate is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates. • Adolescent fertility rate is the number of births per 1,000 women ages 15-19. • Unmet need for contraception is the percentage of fertile, married women of reproductive age who do not want to become pregnant and are not using contraception. • Contraceptive prevalence rate is the percentage of women married or in-union ages 15-49 who are practicing, or whose sexual partners are practicing, any form of contraception. • Newborns protected against tetanus are the percentage of births by women of child-bearing age who are immunized against tetanus. • Pregnant women receiving prenatal care are the percentage of women attended at least once during pregnancy by skilled health personnel for reasons related to pregnancy. • Births attended by skilled health staff are the percentage of deliveries attended by personnel trained to give the necessary care to women during pregnancy, labor, and postpartum; to conduct deliveries on their own; and to care for newborns. • Maternal mortality ratio is the number of women who die from pregnancy-related causes during pregnancy and childbirth per 100,000 live births.

#### Data sources

Data on fertility rates are compiled and estimated by the World Bank's Development Data Group. Inputs come from the United Nations Population Division's World Population Prospects: The 2006 Revision, census reports and other statistical publications from national statistical offices, and household surveys such as Demographic and Health Surveys. Data on women with unmet need for contraception and contraceptive prevalence rates are from household surveys, including Demographic and Health Surveys by Macro International and Multiple Indicator Cluster Surveys by UNICEF. Data on tetanus vaccinations, pregnant women receiving prenatal care, births attended by skilled health staff, and national estimates of maternal mortality ratios are from UNICEF's State of the World's Children 2009 and Childinfo and Demographic and Health Surveys by Macro International. Modeled estimates for maternal mortality ratios are from WHO, UNICEF, UNFPA and the World Bank's Maternal Mortality in 2005 (2007).