

Neonatal and Perinatal Mortality

Country,
Regional and
Global Estimates 2004



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Neonatal and Perinatal Mortality

Country, Regional and Global Estimates 2004

This leaflet provides neonatal and perinatal mortality estimates for 2004. These estimates have been updated with new data from surveys and vital registration, using the same methodology and assumptions as those published for 2000¹ (http://www.who.int/making_pregnancy_safer/publications/neonatalcoverA4F.2.pdf) and adjusted to the WHO estimated under-five mortality for 2004.² This update is done in response to a surge in national community studies and acknowledging improved reporting of vital registration data.

Table 1 shows that new data (after 2003) were available for 56% of live births, 29% from surveys and 27% from vital registration. Estimates based on regression from the WHO estimated under-five mortality was calculated for 5% of births. All data were recalculated within the 2004 WHO under-five mortality estimates. The resulting global and regional estimates for 2004 are shown in Table 2 and country estimates in Table 3.

Table 1 Source of data

	Number of countries	Number of live births	% of live births
Surveys, data after 2003	41	39 094	29
Surveys, data before and including 2003	48	51 535	39
Vital registration, data after 2003	79	35 673	27
Vital registration, data before and including 2003	2	36	0.03
Total countries with available data	170	126 349	95
Countries / areas with no reliable data (Regression)	33	6 635	5
No data, no estimate	4	152	0.1
Grand total	207	133 136	100

In 2004 there were 133 million live births; 3.7 million of these died in the neonatal period. Three million infants were stillborn. Ninety-eight per cent of deaths took place in the developing world, where 90% of babies were born.

According to these new estimates, neonatal mortality in developing countries was 31 deaths per 1000 live births; of those deaths, 76%, or 3 million, occurred in the early neonatal period.

With 40 neonatal deaths per 1000 live births, the risk of neonatal death remained the highest in Africa; the sub-Saharan regions of eastern, western and central Africa had between 40 and 46 neonatal deaths per 1000 live births. South-central Asia, with 40 neonatal deaths per 1000 live births, showed rates close to those registered in sub-Saharan Africa, while the neonatal mortality rate for Latin America and the Caribbean was 13 per 1000 live births. Most neonatal deaths occurred in Asia, which is where most children were born. Given the high mortality rate in the south-central Asia subregion, over 40% of global neonatal deaths took place there. In those regions and countries stillbirth rates also remained high. The highest rates were measured in sub-Saharan Africa (38/1000 total births) and south-central Asia (33/1000 total births).

Neonatal deaths in developed countries were rare events (4 deaths/1000 live births) and the stillbirth rate was substantially lower (4/1000 total births) than the estimates for 2000, as detailed data, now available, allowed the application of the definition of 28 weeks, which matches data possible to retrieve for developing countries and recommended for international comparison.

The reduction of neonatal mortality in developed countries was 13% and in developing and least developed countries 6% and 1% respectively. The gap between developing and developed countries

has increased as compared to the evaluation in 2000. The risk of death in the neonatal period was over seven times greater than in developed countries; in the least developed countries it was 10 times higher than in developed countries. For perinatal death the risks were 7 and 9 times higher respectively.

Worldwide, there were 5.9 million perinatal deaths., almost all of which occurred in developing countries and 30% of them in the least developed countries alone. Stillbirths accounted for over half of all perinatal deaths. According to 2000 estimates, one third of stillbirths took place during delivery. Those intrapartum deaths are closely linked to place of, and care at, delivery and are largely avoidable with skilled care. In developing countries, just over 40% of deliveries occurred in health facilities and little more than one in two with the assistance of a doctor, midwife or qualified nurse.³

However, current data are still not good enough to give us the true burden of perinatal deaths. Stillbirth data from less developed countries remain incomplete and thus estimates are less reliable than neonatal mortality estimates; surveys continue reporting unrealistic low stillbirth rates that are reflected in these estimates. It is to be hoped that problems related to such data will stimulate further research and collection of population-based data, which will help to improve mortality monitoring and provide health managers with comparative information about the nature and extent of the problem in their country. Keeping such limitations in mind, this document nevertheless allows countries to review their achievements in the area of maternal and neonatal health, and compare their results with those obtained by other countries.

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Figure 1 Neonatal, early neonatal and stillbirth mortality rates for 2000 and 2004

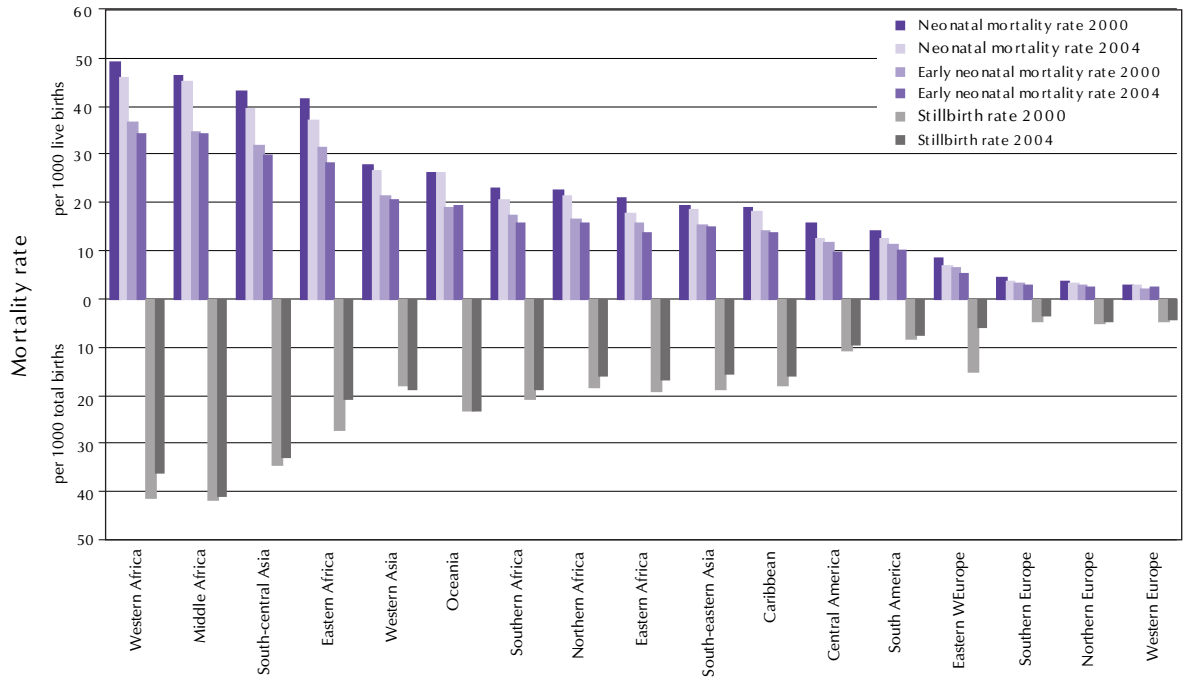


Figure 2 Component of under-five rates and component for stillbirth rates for more developed and less developed countries for 2004

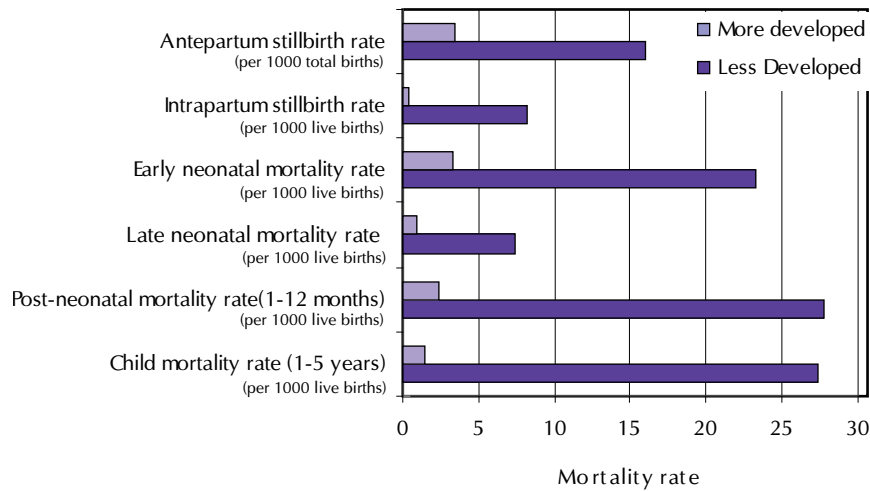


Table 2 Global estimates of stillbirths, early neonatal, perinatal and neonatal mortality rates and numbers by level of development and geographical (United Nations) region and subregion, 2004

	Live births (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000s)	Early neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)
WORLD	133 136	43	5 852	22	3 027	21	2 825	28	3 729
More developed regions	13 291	7	95	4	51	3	44	4	56
Less developed regions	119 845	47	5 757	24	2 976	23	2 781	31	3 673
Least developed countries	27 823	60	1 718	31	878	30	841	41	1 130
AFRICA	33 049	56	1 896	28	946	29	950	38	1 261
Eastern Africa	11 388	48	560	21	239	28	321	37	421
Middle Africa	4 943	74	379	41	211	34	168	45	222
Northern Africa	4 746	31	150	16	76	16	74	21	100
Southern Africa	1 276	34	44	19	24	16	20	20	26
Western Africa	10 696	69	763	36	396	34	367	46	492
ASIA*	74 794	47	3 630	25	1 923	23	1 707	30	2 254
Eastern Asia*	18 307	30	563	17	310	14	254	18	327
South-central Asia	39 616	61	2 506	33	1 333	30	1 172	40	1 568
South-eastern Asia	11 458	30	346	15	177	15	169	19	213
Western Asia	5 413	39	215	19	103	21	112	27	145
EUROPE	7 354	8	60	5	34	4	26	5	34
Eastern Europe	2 916	11	32	6	16	5	15	7	20
Northern Europe	1 066	7	7	4	5	2	3	3	3
Southern Europe	1 490	6	9	3	5	3	4	4	6
Western Europe	1 882	6	12	4	7	2	4	3	5
LATIN AMERICA AND CARIBBEAN	11 754	19	220	8	101	10	119	13	152
Caribbean	767	29	23	16	12	14	10	18	14
Central America	3 316	19	63	9	31	9	31	13	42
South America	7 671	17	134	7	57	10	77	13	96
NORTHERN AMERICA	4 464	7	29	3	14	3	15	4	19
OCEANIA*	249	42	11	23	6	19	5	26	7
Australia/New Zealand	304	5	2	3	1	2	1	3	1
Melanesia	221	45	10	25	6	21	5	28	6
Micronesia	14	13	0.2	7	0.1	6	0.1	8	0.1
Polynesia	15	23	0.3	12	0.2	10	0.2	13	0.2

Figures may not add up due to rounding

* Australia, New Zealand and Japan have been excluded from the regional estimates but are included in the total for developing countries.

Table 3 Estimates of stillbirths, early neonatal, perinatal and neonatal mortality rates and numbers by WHO region and subregion, 2004

	Live births (1000s)	Stillbirth rate	Number of stillbirths (1000s)	Early neonatal mortality rate	Number of early neonatal deaths (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)
WHO Member States	132 874	22	3023	21	2 821	43	5 844	28	3 724
AFRO	28 572	29	866	31	873	59	1 739	40	1 156
AFRO D	13 294	35	477	33	432	66	910	43	573
AFRO E	15 278	25	389	29	441	53	830	38	583
AMRO	16 137	7	114	8	134	15	248	11	171
AMRO A	4 598	3	16	3	16	7	32	4	20
AMRO B	9 511	8	74	10	91	17	165	12	115
AMRO D	2 027	12	24	13	27	25	51	18	36
EMRO	15 306	23	357	27	411	49	768	38	575
EMRO B	3 231	12	38	11	35	22	73	14	45
EMRO D	12 075	26	319	31	376	56	695	44	531
EURO	10 462	9	91	8	83	16	174	10	102
EURO A	4 359	4	16	2	9	6	25	3	12
EURO B	3 670	15	54	15	54	29	109	18	67
EURO C	2 432	8	20	8	19	16	40	9	23
SEARO	37 842	31	1 199	26	1 001	56	2 200	35	1 312
SEARO B	5 857	8	48	12	70	20	117	15	88
SEARO D	31 985	35	1 152	29	931	63	2 083	38	1 225
WPRO	24 556	16	397	13	319	29	716	17	407
WPRO A	1 521	2	4	1	2	4	6	2	3
WPRO B	23 035	17	393	14	317	30	710	18	405

Figures may not add up due to rounding

WHO regions and mortality subregions are described in Section 6.4.2 and listed in Annex 9.

Table 4 Country estimates of stillbirths, perinatal, early neonatal and neonatal mortality rates and numbers for the year 2004

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Afghanistan	1 395	97	143	54	80	45	63	60	84	Estimated from WHO<5
Albania	53	16	1	9	<1	7	<1	9	1	Estimated from WHO<5
Algeria	671	37	26	21	14	17	12	22	15	PAPFAM 2002
Andorra	1	3	<1	2	<1	2	<1	2	<1	UNDem2003
Angola	749	87	68	49	38	40	30	54	40	Estimated from WHO<5
Antigua and Barbuda	2	16	<1	9	<1	7	<1	8	<1	UNDem2003
Argentina	685	16	11	9	6	7	5	10	7	VR WHO 2006
Armenia	34	28	1	14	1	14	<1	18	1	Prel DHS 2005
Australia	249	5	1	3	1	3	1	3	1	VR WHO 2006
Austria	75	4	<1	2	<1	2	<1	3	<1	VR WHO/EURO 2006
Azerbaijan	132	47	6	22	3	26	3	35	5	CDC survey 2001 final
Bahamas	6	8	<1	4	<1	3	<1	5	<1	VR WHO 2006
Bahrain	13	5	<1	3	<1	2	<1	4	<1	VR WHO 2006
Bangladesh	3 738	59	227	33	126	27	101	36	136	DHS survey in 2004
Barbados	3	15	<1	8	<1	7	<1	8	<1	VR WHO 2006
Belarus	91	7	1	4	<1	3	<1	3	<1	VR EURO 2006
Belgium	111	5	1	4	<1	1	<1	2	<1	UNDem2003
Belize	7	31	<1	17	<1	15	<1	17	<1	Maternal and child mortality survey 1996
Benin	341	64	23	36	13	30	10	36	12	DHS survey in 2001corr
Bhutan	64	32	2	17	1	15	1	30	2	Govt. reported survey data for 2000/01
Bolivia	265	30	8	11	3	19	5	24	6	DHS survey in 2003
Bosnia and Herzegovina	37	15	1	7	<1	8	<1	10	<1	UNDem2003
Botswana	46	90	4	50	2	42	2	46	2	DHS survey in 1989
Brazil	3 728	17	65	7	25	11	40	13	48	DHS survey in 1996
Brunei Darussalam	8	7	<1	4	<1	3	<1	4	<1	VR WHO 2006

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Bulgaria	67	10	1	6	<1	4	<1	7	<1	VR WHO/EURO 2006
Burkina Faso	601	36	22	16	10	21	12	32	19	DHS survey in 2003
Burundi	330	60	20	33	11	28	9	41	14	DHS survey 1987
Cambodia	422	79	35	44	19	37	15	48	20	Prel DHS 2005
Cameroon	562	54	31	30	17	25	14	30	17	DHS survey in 2004
Canada	328	6	2	3	1	3	1	3	1	UNDem2003
Cape Verde	15	27	<1	20	<1	8	<1	9	<1	National survey 1998
Central African Republic	149	87	14	48	8	40	6	52	8	DHS survey in 1994-95
Chad	456	63	30	35	16	29	13	42	19	DHS survey in 2004
Channel Islands	1	5	<1	3	<1	2	<1	2	<1	UNDem2003
Chile	249	10	3	6	2	4	1	5	1	VR WHO 2006
China	17 372	31	546	17	300	14	246	18	317	WPRO Country Health Profile 2005
China, Hong Kong SAR	57	5	<1	4	<1	1	<1	1	<1	UN Dem Yearbook 2003
China, Macao SAR	3	3	<1	2	<1	0.3	<1	0.3	<1	UN Dem Yearbook 2003
Colombia	970	18	17	7	7	11	11	13	13	DHS survey in 2005
Comoros	28	41	1	23	1	19	1	25	1	DHS survey in 1996
Congo	172	51	9	28	5	23	4	30	5	DHS survey in 2005
Cook Islands	0.4	17	<1	10	<1	8	<1	10	<1	Estimated from WHO<5
Costa Rica	79	15	1	8	1	7	1	8	1	VR WHO 2006
Côte d'Ivoire	661	94	66	53	37	44	29	64	42	Prel DHS 2005
Croatia	41	7	<1	4	<1	3	<1	5	<1	VR WHO/EURO 2006
Cuba	136	17	2	15	2	2	<1	4	<1	VR WHO 2006
Cyprus	10	4	<1	2	<1	2	<1	2	<1	UNDem2003
Czech Republic	91	4	<1	3	<1	1	<1	2	<1	VR WHO/EURO 2006

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Democratic Republic of the Congo	2 788	76	223	43	124	35	99	47	131	Estimated from WHO<5
Democratic Republic of Timor-Leste	45	48	2	27	1	22	1	29	1	Estimated from WHO<5
Democratic People's Republic of Korea	349	37	13	20	7	17	6	22	8	Estimated from WHO<5
Denmark	63	5	<1	2	<1	3	<1	3	<1	Eurostat 2006
Djibouti	27	72	2	40	1	34	1	45	1	PAPFAM 2002
Dominica	2	15	<1	8	<1	7	<1	10	<1	VR WHO 2006
Dominican Republic	211	22	5	7	1	15	3	18	4	DHS survey in 2002
Ecuador	296	17	5	6	2	10	3	13	4	CDC survey in 2004 Final
Egypt	1 890	21	40	8	16	13	24	17	32	DHS survey in 2005
El Salvador	166	21	3	11	2	10	2	12	2	CDC survey in 2002-03 Final
Equatorial Guinea	21	76	2	42	1	35	1	47	1	Estimated from WHO<5
Eritrea	166	36	6	20	3	16	3	21	4	DHS survey in 2002
Estonia	13	6	<1	3	<1	2	<1	4	<1	VR WHO/EURO 2006
Ethiopia	3 064	41	128	11	34	31	94	41	126	DHS survey in 2005
Fiji	19	17	<1	9	<1	8	<1	10	<1	Estimated from WHO<5
Finland	55	4	<1	2	<1	2	<1	2	<1	VR WHO/EURO 2006
France	744	7	5	4	3	2	2	2	2	VR WHO/EURO 2006
French Guiana	4	17	<1	12	<1	5	<1	7	<1	UNDem2003
French Polynesia	5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Gabon	42	59	3	33	1	27	1	31	1	DHS survey in 2000
Gambia	52	76	4	42	2	35	2	44	2	National survey in 1990
Georgia	50	36	2	17	1	19	1	25	1	CDC survey in 1999-00
Germany	687	6	4	4	3	2	1	3	2	VR WHO/EURO 2006
Ghana	679	48	33	11	8	38	26	43	29	DHS survey in 2003
Greece	102	3	<1	1	<1	2	<1	3	<1	VR WHO/EURO 2006

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Grenada	2	18	<1	10	<1	8	<1	11	<1	Estimated from WHO<5
Guadeloupe	7	24	<1	21	<1	3	<1	6	<1	UNDem2003
Guam	4	7	<1	4	<1	3	<1	4	<1	UNDemographic Yearbook 2000
Guatemala	433	29	13	15	7	14	6	19	8	CDC survey in 2002
Guinea	383	46	18	15	6	31	12	39	15	DHS survey in 2005
Guinea-Bissau	77	76	6	42	3	35	3	47	4	Estimated from WHO<5
Guyana	16	37	1	20	<1	17	<1	22	<1	Estimated from WHO<5
Haiti	253	51	13	28	7	23	6	32	8	DHS survey in 2000
Honduras	206	26	5	14	3	12	3	17	4	CDC Survey in 2001
Hungary	95	7	1	4	<1	3	<1	5	<1	Eurostat 2006
Iceland	4	4	<1	3	<1	1	<1	1	<1	VR WHO/EURO 2006
India	26 000	64	1 723	35	955	30	768	39	1 004	National survey 1998-99
Indonesia	4 513	21	97	8	37	13	61	17	75	DHS survey in 2002-03
Iran (Islamic Republic of)	1 308	30	39	15	20	15	20	19	25	Iran National Survey 2000
Iraq	972	77	77	32	32	47	46	63	61	UNICEF supported survey
Ireland	63	9	1	6	<1	3	<1	4	<1	VR WHO/EURO 2006
Israel	134	5	1	3	<1	2	<1	3	<1	VR WHO/EURO 2006
Italy	531	5	3	3	1	2	1	3	1	VR WHO/EURO 2006
Jamaica	52	17	1	9	<1	8	<1	10	1	Estimated from WHO<5
Japan	1 169	3	4	2	3	1	1	1	2	VR WHO 2006
Jordan	150	23	3	10	2	12	2	16	2	DHS survey in 2002
Kazakhstan	237	57	14	29	7	29	7	32	7	DHS survey in 1999
Kenya	1 322	43	57	14	19	29	38	34	45	DHS survey in 2003
Kiribati	2	42	<1	23	<1	19	<1	25	<1	Estimated from WHO<5

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Kuwait	50	12	1	8	<1	5	<1	7	<1	UNDem2003
Kyrgyzstan	116	55	7	31	4	25	3	30	3	DHS survey in 1997
Lao People's Democratic Republic	204	49	10	27	6	23	5	30	6	Estimated from WHO<5
Latvia	21	8	<1	5	<1	4	<1	6	<1	VR WHO/EURO 2006
Lebanon	66	35	2	19	1	16	1	19	1	UNICEF 2000
Lesotho	50	95	5	53	3	44	2	52	3	DHS survey in 2004
Liberia	164	104	18	58	10	48	8	66	11	DHS 1999/2000, DHS 1985
Libyan Arab Jamahiriya	133	19	3	10	1	9	1	11	1	PAPCHILD survey in 1995
Lithuania	31	7	<1	4	<1	3	<1	5	<1	VR WHO/EURO 2006
Luxembourg	6	6	<1	3	<1	2	<1	3	<1	VR WHO/EURO 2006
Madagascar	704	70	51	39	28	32	23	41	29	DHS survey in 2003-04
Malawi	550	35	20	15	8	20	11	26	14	DHS survey in 2004
Malaysia	549	9	5	5	3	4	2	5	3	UNDem2003
Maldives	10	55	1	34	<1	22	<1	24	<1	UN Demographic Yearbook 2000
Mali	647	50	33	12	8	39	25	54	35	DHS survey in 2001
Malta	4	5	<1	3	<1	2	<1	3	<1	VR WHO/EURO 2006
Marshall Islands	2	39	<1	22	<1	18	<1	24	<1	Estimated from WHO<5
Martinique	5	21	<1	18	<1	3	<1	5	<1	VR WHO 2006
Mauritania	123	65	8	36	5	30	4	40	5	DHS survey in 2003-04
Mauritius	20	18	<1	11	<1	7	<1	9	<1	VR WHO 2006
Mexico	2 201	16	35	8	17	8	18	11	24	VR WHO 2006
Micronesia (Federated States of)	3	19	<1	10	<1	9	<1	11	<1	Estimated from WHO<5
Monaco	0.4	4	<1	2	<1	2	<1	2	<1	Estimated from WHO<5
Mongolia	58	32	2	18	1	15	1	18	1	National survey in 1998
Morocco	713	39	29	22	16	18	13	24	17	DHS / PAPFAM 2003-04

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Mozambique	769	45	35	19	15	26	20	35	27	DHS survey in 2003
Myanmar	992	79	82	44	46	37	36	49	48	Reproductive Health survey 2001
Namibia	56	36	2	20	1	17	1	20	1	DHS survey 2000
Nauru	0.3	24	<1	13	<1	11	<1	14	<1	Estimated from WHO<5
Nepal	786	41	33	18	15	23	18	32	25	DHS survey in 2001
Netherlands	190	7	1	4	1	3	<1	3	1	VR WHO/EURO 2006
Netherlands Antilles	3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
New Caledonia	4	9	<1	6	<1	2	<1	3	0	UNDem 2003
New Zealand	55	5	<1	3	<1	2	<1	3	<1	VR WHO 2006
Nicaragua	153	21	3	9	1	11	2	16	2	DHS survey in 2001
Niger	734	54	41	30	23	25	18	41	30	DHS survey in 1998
Nigeria	5 323	76	425	43	236	35	189	47	249	DHS survey in 2003
Niue	0.03	27	<1	15	<1	12	<1	16	<1	Estimated from WHO<5
Norway	55	4	<1	2	<1	2	<1	2	<1	VR WHO/EURO 2006
Occupied Palestinian Territory	136	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Oman	64	9	1	5	<1	4	<1	5	<1	GFHS survey 1995
Pakistan	4 729	56	268	21	99	36	169	53	252	Govt reported study 2000
Palau	1	22	<1	12	<1	10	<1	13	<1	Estimated from WHO<5
Panama	70	15	1	8	1	7	1	11	1	VR WHO 2006
Papua New Guinea	176	50	9	28	5	23	4	32	6	National survey 1996
Paraguay	175	15	3	8	1	7	1	12	2	CDC survey in 2004 Final
Peru	627	14	9	6	4	8	5	11	7	DHS survey in 2000
Philippines	2 026	21	43	9	19	12	24	15	30	DHS survey in 2003
Poland	365	7	2	3	1	3	1	5	2	VR WHO/EURO 2006

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Portugal	112	5	1	3	<1	2	<1	3	<1	Eurostat 2006
Puerto Rico	56	9	1	4	<1	5	<1	7	<1	UNDem2003
Qatar	14	8	<1	4	<1	4	<1	4	<1	GFHS survey 1998
Republic of Korea	467	5	2	2	1	2	1	3	2	Survey of deaths <1 year 1993
Republic of Moldova	43	20	1	10	<1	10	<1	12	1	VR WHO/EURO 2006
Réunion	15	9	<1	5	<1	4	<1	5	<1	UN Dem. Yearbook 2003
Romania	213	13	3	6	1	7	1	10	2	VR WHO/EURO 2006
Russian Federation	1 511	12	18	6	9	5	8	7	11	VR EURO 2006
Rwanda	365	61	23	24	9	37	14	48	18	DHS survey in 2005
Saint Kitts and Nevis	1	18	<1	10	<1	8	<1	11	<1	Estimated from WHO<5
Saint Lucia	3	24	<1	13	<1	11	<1	11	<1	VR WHO 2006
Saint Vincent and Grenadines	2	24	<1	13	<1	11	<1	13	<1	VR WHO 2006
Samoa	5	24	<1	13	<1	11	<1	14	<1	Estimated from WHO<5
San Marino	0.3	4	<1	2	<1	2	<1	2	<1	UNDem2003
Sao Tome and Principe	5	62	<1	34	<1	29	<1	38	<1	Estimated from WHO<5
Saudi Arabia	665	19	13	11	7	9	6	11	7	GFHS survey 1996
Senegal	419	59	25	32	14	27	11	35	15	DHS survey in 2005
Serbia and Montenegro	122	13	2	6	1	7	1	9	1	VR WHO/EURO 2006
Seychelles	1	12	<1	7	<1	6	<1	7	<1	Estimated from WHO<5
Sierra Leone	245	91	23	51	13	42	10	56	14	Estimated from WHO<5
Singapore	40	4	<1	3	<1	1	<1	1	<1	VR WHO 2006
Slovakia	51	6	<1	4	<1	3	<1	4	<1	Eurostat 2006
Slovenia	17	5	<1	3	<1	2	<1	2	<1	VR WHO/EURO 2006
Solomon Islands	15	38	1	21	<1	17	<1	23	<1	Estimated from WHO<5
Somalia	359	81	30	45	17	37	13	49	18	Estimated from WHO<5
South Africa	1 093	28	31	15	17	13	14	17	19	Prel DHS 2005

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
Spain	447	4	2	3	1	2	1	2	1	VR WHO/EURO 2006
Sri Lanka	330	14	5	8	3	6	2	8	3	National survey 2000
Sudan	1 163	42	50	23	27	19	22	27	32	PAPCHILD survey 1992-93
Suriname	9	30	<1	17	<1	14	<1	17	<1	VR WHO 2006
Swaziland	30	66	2	36	1	30	1	40	1	Estimated from WHO<5
Sweden	95	5	<1	3	<1	2	<1	2	<1	Eurostat 2006
Switzerland	68	5	<1	2	<1	3	<1	3	<1	VR WHO/EURO 2006
Syrian Arab Republic	526	13	7	7	4	6	3	7	4	PAPFAM 2001
Tajikistan	186	62	12	34	7	29	5	38	7	Estimated from WHO<5
The former Yugoslav Republic of Macedonia	23	16	<1	9	<1	7	<1	9	<1	VR WHO/EURO 2003
Thailand	1 015	15	15	8	8	7	7	9	10	DHS 1987
Togo	233	71	17	39	10	33	8	39	9	DHS survey in 1998
Tonga	2	20	<1	11	<1	9	<1	12	<1	Estimated from WHO<5
Trinidad and Tobago	19	14	<1	8	<1	6	<1	10	<1	VR WHO 2006
Tunisia	166	19	3	10	2	9	1	13	2	PAPFAM 2001
Turkey	1 505	26	39	12	18	14	21	16	24	DHS survey in 1998
Turkmenistan	107	40	4	14	2	27	3	37	4	DHS survey in 2000
Tuvalu	0.2	35	<1	19	<1	16	<1	21	<1	Estimated from WHO<5
Uganda	1 412	38	54	15	21	23	33	30	42	DHS survey in 2000/01
Ukraine	391	14	5	6	3	7	3	7	3	VR EURO 2006
United Arab Emirates	67	8	1	4	<1	4	<1	4	<1	GFHS survey 1995
United Kingdom	663	8	5	5	3	3	2	3	2	VR WHO/EURO 2006
United Republic of Tanzania	1 403	59	86	33	48	27	38	35	49	DHS survey in 2004-05
United States of America	4 134	7	27	3	13	4	14	4	18	VR WHO 2006

	Births in 2004 (1000s)	Perinatal mortality rate	Number of perinatal deaths (1000s)	Stillbirth rate	Number of stillbirths (1000)	Early Neonatal mortality rate	Number of early neonatal deaths (1000s)	Neonatal mortality rate	Number of neonatal deaths (1000s)	Source of data
United States Virgin Islands	2	8	<1	4	<1	4	<1	4	<1	VR WHO 2006
Uruguay	57	12	1	7	<1	5	<1	7	<1	VR WHO 2006
Uzbekistan	611	44	28	25	15	20	12	26	16	DHS survey in 1996
Vanuatu	6	29	<1	16	<1	13	<1	18	<1	Estimated from WHO<5
Venezuela	590	20	12	11	7	9	5	11	7	VR WHO 2006
Viet Nam	1 644	34	56	23	38	11	18	12	20	DHS survey in 2002
Western Sahara	9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Yemen	826	65	55	36	31	30	25	41	34	PAPFAM 2001
Zambia	468	56	27	31	15	26	12	40	19	DHS survey in 2002
Zimbabwe	384	48	19	19	7	29	11	36	14	DHS survey in 2000

Acronyms

UNDem2003	United Nations Demographic yearbook 2003
Prel DHS	Preliminary report of DHS data
VR WHO	<i>WHO mortality database: tables</i> [online database]. Geneva, World Health Organization, 2007 (http://www.who.int/healthinfo/morttables/).
Eurostat	The Statistical Office of the European Community

**Universal access to quality care
in pregnancy, at childbirth and postpartum
for mothers and their newborns
is essential for reducing
perinatal and neonatal mortality.**

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