

Trends in Maternal Mortality: 1990 to 2015

Estimates by WHO, UNICEF, UNFPA, World Bank Group
and the United Nations Population Division

Executive Summary



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Executive summary

In 2000, the United Nations (UN) Member States pledged to work towards a series of Millennium Development Goals (MDGs), including the target of a three-quarters reduction in the 1990 maternal mortality ratio (MMR; maternal deaths per 100 000 live births), to be achieved by 2015. This target (MDG 5A) and that of achieving universal access to reproductive health (MDG 5B) together formed the two targets for MDG 5: Improve maternal health. In the five years counting down to the conclusion of the MDGs, a number of initiatives were established to galvanize efforts towards reducing maternal mortality. These included the UN Secretary-General's Global Strategy for Women's and Children's Health, which mobilized efforts towards achieving MDG 4 (Improve child health) as well as MDG 5, and the high-level Commission on Information and Accountability (COIA), which promoted "global reporting, oversight, and accountability on women's and children's health". Now, building on the momentum generated by MDG 5, the Sustainable Development Goals (SDGs) establish a transformative new agenda for maternal health towards ending preventable maternal mortality; target 3.1 of SDG 3 is to reduce the global MMR to less than 70 per 100 000 live births by 2030.

Planning and accountability for improving maternal health, and assessment of MDG 5 and SDG targets, require accurate and internationally comparable measures of maternal mortality. Countries have made notable progress in collecting data through civil registration systems, surveys, censuses and specialized studies over the past decade. Yet, many still lack comprehensive systems for capturing vital events data, and underreporting continues to pose a major challenge to data accuracy.

Given the challenges of obtaining accurate and standardized direct measures of maternal mortality, the Maternal Mortality Estimation Inter-Agency Group (MMEIG) – comprising the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), World Bank Group and the United Nations Population Division (UNPD) – partnered with a team at the University of Massachusetts Amherst, United States of America (USA), the National University of Singapore, Singapore, and the University of California at Berkeley, USA, to generate internationally comparable MMR estimates with independent advice from a technical advisory group that includes scientists and academics with experience in measuring maternal mortality.

The estimates for 1990 to 2015 presented in this summary are the eighth in a series of analyses by the MMEIG to examine global, regional and country progress in reducing maternal mortality. To provide increasingly accurate maternal mortality estimates, the previous estimation methods have been refined to optimize use of country-level data and estimation of uncertainty around the estimates. The methodology used in this round by the MMEIG builds directly upon previous methods, but now provides estimates that are more informed by national data. It also supports more realistic assessments of uncertainty about those estimates, based on the quality of data used to produce them. The statistical code and full database used to produce the current estimates are publicly available online.¹

1 Available at: <http://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/>

Globally, the MMR fell by nearly 44% over the past 25 years, to an estimated 216 (80% uncertainty interval [UI]² 207 to 249) maternal deaths per 100 000 live births in 2015, from an MMR of 385 (UI 359 to 427) in 1990. The annual number of maternal deaths decreased by 43% from approximately 532 000 (UI 496 000 to 590 000) in 1990 to an estimated 303 000 (UI 291 000 to 349 000) in 2015. The approximate global lifetime risk of a maternal death fell considerably from 1 in 73 to 1 in 180.

Developing regions account for approximately 99% (302 000) of the global maternal deaths in 2015, with sub-Saharan Africa alone accounting for roughly 66% (201 000), followed by Southern Asia (66 000). Estimated MMR declined across all MDG regions³ between 1990 and 2015, although the magnitude of the reduction differed substantially between regions. The greatest decline over that period was observed in Eastern Asia (72%). As of 2015, the two regions with highest MMR are sub-Saharan Africa (546; UI 511 to 652) and Oceania (187; UI 95 to 381).

At the country level, Nigeria and India are estimated to account for over one third of all maternal deaths worldwide in 2015, with an approximate 58 000 maternal deaths (19%) and 45 000 maternal deaths (15%), respectively. Sierra Leone is estimated to have the highest MMR at 1360 (UI 999 to 1980). Eighteen other countries, all in sub-Saharan Africa, are estimated to have very high MMR in 2015, with estimates ranging from 999 down to 500 deaths per 100 000 live births: Central African Republic (881; UI 508 to 1500), Chad (856; UI 560 to 1350), Nigeria (814; UI 596 to 1180), South Sudan (789; UI 523 to 1150), Somalia (732; UI 361 to 1390), Liberia (725; UI 527 to 1030), Burundi (712; UI 471 to 1050), Gambia (706; UI 484 to 1030), Democratic Republic of the Congo (693; UI 509 to 1010), Guinea (679; UI 504 to 927), Côte d'Ivoire (645; UI 458 to 909), Malawi (634; UI 422 to 1080), Mauritania (602; UI 399 to 984), Cameroon (596; UI 440 to 881), Mali (587; UI 448 to 823), Niger (553; UI 411 to 752), Guinea-Bissau (549; UI 273 to 1090) and Kenya (510; UI 344 to 754). The two countries with the highest estimated lifetime risk of maternal mortality are Sierra Leone with an approximate risk of 1 in 17, and Chad with an approximate risk of 1 in 18. The estimated lifetime risk of maternal mortality in high-income countries is 1 in 3300 in comparison with 1 in 41 in low-income countries.

Emergent humanitarian settings and situations of conflict, post-conflict and disaster significantly hinder the progress of maternal mortality reduction. In such situations, the breakdown of health systems can cause a dramatic rise in deaths due to complications that would be easily treatable under stable conditions. In countries designated as fragile states, the estimated lifetime risk of maternal mortality is 1 in 54.

Globally, approximately 1.6% (4700) of all maternal deaths are estimated to be AIDS-related indirect maternal deaths. In sub-Saharan Africa, 2.0% of all maternal deaths are estimated to be AIDS-related indirect maternal deaths, yielding an AIDS-related indirect MMR of 11 maternal deaths per 100 000 live births. In 2015 there are five countries where 10% or more of maternal deaths are estimated to be AIDS-related indirect maternal deaths: South Africa (32%), Swaziland (19%), Botswana (18%), Lesotho (13%) and Mozambique (11%).

2 The uncertainty intervals (UI) computed for all the estimates refer to the 80% uncertainty intervals (10th and 90th percentiles of the posterior distributions). This was chosen as opposed to the more standard 95% intervals because of the substantial uncertainty inherent in maternal mortality outcomes.

3 An explanation of the MDG regions is available at: <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Data/RegionalGroupings.htm> (a list of the MDG regions is also provided in the full report).

Nine countries that had MMR of more than 100 in 1990 are now categorized as having “achieved MDG 5A” based on MMR reduction point-estimates indicating a reduction of at least 75% between 1990 and 2015: Bhutan, Cambodia, Cabo Verde, the Islamic Republic of Iran, the Lao People’s Democratic Republic, Maldives, Mongolia, Rwanda and Timor-Leste. Based on MMR reduction point-estimates and uncertainty intervals for the same period, an additional 39 countries are categorized as “making progress”, 21 are categorized as having made “insufficient progress”, and 26 are categorized as having made “no progress”.

Achieving the SDG target of a global MMR below 70 will require reducing global MMR by an average of 7.5% each year between 2016 and 2030. This will require more than three times the 2.3% annual rate of reduction observed globally between 1990 and 2015.

Accurate measurement of maternal mortality levels remains an immense challenge, but the overall message is clear: hundreds of thousands of women are still dying due to complications of pregnancy and/or childbirth each year. Many of these deaths go uncounted. Working towards SDG 3.1 and ultimately towards ending preventable maternal mortality requires amplifying the efforts and progress catalysed by MDG 5. Among countries where maternal deaths remain high, efforts to save lives must be accelerated and must also be paired with country-driven efforts to accurately register births and deaths, including cause of death certification. Strengthening civil registration and vital statistics will support measurement efforts and help track progress towards reaching SDG 3.1. Among those countries with low overall maternal mortality, the next challenge is measuring and amending inequities among subpopulations. The new Global Strategy for Women’s, Children’s and Adolescents’ Health will spearhead an enhanced global collaborative response aimed at ending all preventable maternal deaths.

Figure 1. Maternal mortality ratio (MMR, maternal deaths per 100 000 live births), 2015

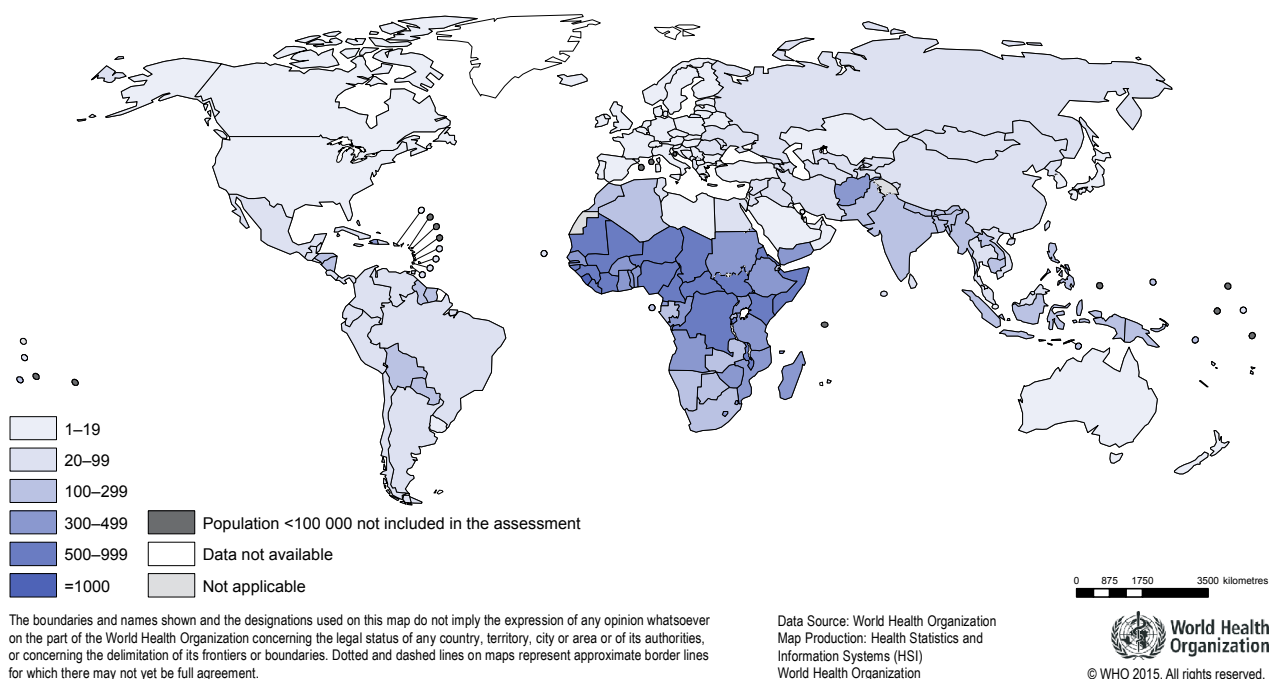


Table 1. Estimates of maternal mortality ratio (MMR; maternal deaths per 100 000 live births), number of maternal deaths, lifetime risk, and AIDS-related indirect maternal deaths by United Nations Millennium Development Goal (MDG) region, 2015

MDG region	MMR ^a	Range of MMR uncertainty (80% UI)		Number of maternal deaths ^b	Lifetime risk of maternal death, 1 in: ^c	AIDS-related indirect MMR ⁴	Number of AIDS-related indirect maternal deaths
		Lower estimate	Upper estimate				
World	216	207	249	303 000	180	3	4 700
Developed regions	12	11	14	1 700	4 900	1	87
Developing regions	239	229	275	302 000	150	4	4 600
Northern Africa	70	56	92	3 100	450	0	10
Sub-Saharan Africa	546	511	652	201 000	36	11	4 000
Eastern Asia	27	23	33	4 800	2 300	0	43
Eastern Asia excluding China	43	24	86	380	1 500	0	190
Southern Asia	176	153	216	66 000	210	1	310
Southern Asia excluding India	180	147	249	21 000	190	0	25
South-eastern Asia	110	95	142	13 000	380	1	150
Western Asia	91	73	125	4 700	360	0	5
Caucasus and Central Asia	33	27	45	610	1 100	0	8
Latin America and the Caribbean	67	64	77	7 300	670	1	71
Latin America	60	57	66	6 000	760	1	51
Caribbean	175	130	265	1 300	250	3	20
Oceania	187	95	381	500	150	1	30

UI: uncertainty interval.

^a MMR estimates have been rounded according to the following scheme: < 100 rounded to nearest 1; 100–999 rounded to nearest 1; and ≥ 1000 rounded to nearest 10.

^b Numbers of maternal deaths have been rounded according to the following scheme: < 100 rounded to nearest 1; 100–999 rounded to nearest 10; 1000–9999 rounded to nearest 100; and ≥ 10 000 rounded to nearest 1000.

^c Lifetime risk numbers have been rounded according to the following scheme: < 100 rounded to nearest 1; 100–999 rounded to nearest 10; and ≥ 1000 rounded to nearest 100.

⁴ According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), AIDS-related deaths (including AIDS-related indirect maternal deaths) include the estimated number of deaths related to HIV infection, including deaths that occur before reaching the clinical stage classified as AIDS.

Table 2. Trends in estimates of maternal mortality ratio (MMR; maternal deaths per 100 000 live births) and progress towards MDG 5A, by country, 1990–2015

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
Afghanistan	1340	1270	1100	821	584	396	70.4	4.9	3.0	6.4	Making progress
Albania	71	53	43	30	30	29	59.2	3.7	1.6	6.2	NA
Algeria	216	192	170	148	147	140	35.2	1.8	-0.8	3.5	No progress
Angola	1160	1150	924	705	561	477	58.9	3.5	1.5	5.5	Making progress
Argentina	72	63	60	58	58	52	27.8	1.3	0.3	2.0	NA
Armenia	58	50	40	40	33	25	56.9	3.3	2.4	4.2	NA
Australia	8	8	9	7	6	6	25.0	1.3	0.1	2.0	NA
Austria	8	6	5	5	4	4	50.0	2.9	2.0	4.2	NA
Azerbaijan	64	86	48	34	27	25	60.9	3.8	2.3	5.4	NA
Bahamas	46	49	61	74	85	80	-73.9	-2.2	-4.4	-0.1	NA
Bahrain	26	22	21	20	16	15	42.3	2.1	0.7	3.2	NA
Bangladesh	569	479	399	319	242	176	69.1	4.7	2.5	6.1	Making progress
Barbados	58	49	48	40	33	27	53.4	3.0	1.8	4.8	NA
Belarus	33	33	26	13	5	4	87.9	8.1	6.4	9.6	NA
Belgium	9	10	9	8	8	7	22.2	0.8	-0.8	1.9	NA
Belize	54	55	53	52	37	28	48.1	2.7	1.6	4.0	NA
Benin	576	550	572	502	446	405	29.7	1.4	-0.6	2.8	No progress
Bhutan	945	636	423	308	204	148	84.3	7.4	5.0	9.1	Achieved
Bolivia (Plurinational State of)	425	390	334	305	253	206	51.5	2.9	0.5	4.5	Insufficient progress
Bosnia and Herzegovina	28	22	17	14	13	11	60.7	3.6	2.1	5.4	NA
Botswana	243	238	311	276	169	129	46.9	2.5	0.1	4.2	Insufficient progress
Brazil	104	84	66	67	65	44	57.7	3.5	2.5	4.5	Making progress
Brunei Darussalam	35	33	31	30	27	23	34.3	1.8	0.3	3.7	NA
Bulgaria	25	24	21	15	11	11	56.0	3.3	2.0	4.6	NA
Burkina Faso	727	636	547	468	417	371	49.0	2.7	1.3	4.4	Insufficient progress

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
Burundi	1220	1210	954	863	808	712	41.6	2.2	0.6	3.7	Insufficient progress
Cabo Verde	256	150	83	54	51	42	83.6	7.2	5.2	9.2	Achieved
Cambodia	1020	730	484	315	202	161	84.2	7.4	5.6	8.9	Achieved
Cameroon	728	749	750	729	676	596	18.1	0.8	-1.0	2.0	No progress
Canada ^e	7	9	9	9	8	7	0.0	0.3	-0.9	1.6	NA
Central African Republic	1290	1300	1200	1060	909	882	31.6	1.5	-0.4	3.4	No progress
Chad	1450	1430	1370	1170	1040	856	41.0	2.1	0.2	3.7	Insufficient progress
Chile	57	41	31	27	26	22	61.4	3.8	3.0	4.7	NA
China	97	72	58	48	35	27	72.2	5.2	4.2	6.3	NA
Colombia	118	105	97	80	72	64	45.8	2.4	1.0	3.3	Insufficient progress
Comoros	635	563	499	436	388	335	47.2	2.6	1.0	4.2	Insufficient progress
Congo	603	634	653	596	509	442	26.7	1.2	-0.3	2.7	No progress
Costa Rica	43	44	38	31	29	25	41.9	2.2	1.5	3.1	NA
Côte d'Ivoire	745	711	671	742	717	645	13.4	0.6	-0.7	1.9	No progress
Croatia	10	12	11	11	10	8	20.0	0.6	-0.8	1.9	NA
Cuba	58	55	43	41	44	39	32.8	1.6	0.7	2.5	NA
Cyprus	16	17	15	12	8	7	56.3	3.3	1.7	5.4	NA
Czech Republic	14	10	7	6	5	4	71.4	4.8	3.3	6.4	NA
Democratic People's Republic of Korea	75	81	128	105	97	82	-9.3	-0.4	-2.3	1.6	NA
Democratic Republic of the Congo	879	914	874	787	794	693	21.2	1.0	-1.1	2.4	No progress
Denmark	11	11	9	8	7	6	38.8	2.0	0.6	2.9	NA
Djibouti	517	452	401	341	275	229	55.7	3.3	1.4	5.1	Making progress
Dominican Republic	198	198	79	64	75	92	53.5	3.1	1.3	4.7	Making progress
Ecuador	185	131	103	74	75	64	65.4	4.3	3.6	5.0	Making progress

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
Egypt	106	83	63	52	40	33	68.9	4.7	3.8	5.9	Making progress
El Salvador	157	118	84	68	59	54	65.5	4.3	3.0	5.7	Making progress
Equatorial Guinea	1310	1050	702	483	379	342	73.9	5.4	3.6	7.0	Making progress
Eritrea	1590	1100	733	619	579	501	68.5	4.6	3.0	6.0	Making progress
Estonia	42	43	26	15	8	9	78.6	6.1	4.3	7.9	NA
Ethiopia	1250	1080	897	743	523	353	71.8	5.0	2.7	6.5	Making progress
Fiji	63	51	42	39	34	30	52.2	3.0	1.6	5.0	NA
Finland	6	5	5	4	3	3	50.0	3.3	2.1	5.1	NA
France	15	15	12	10	9	8	46.7	2.2	1.2	3.4	NA
Gabon	422	405	405	370	322	291	31.0	1.5	-0.5	2.9	No progress
Gambia	1030	977	887	807	753	706	31.5	1.5	-0.4	2.9	No progress
Georgia	34	35	37	37	40	36	-5.9	-0.2	-1.4	1.0	NA
Germany	11	9	8	7	7	6	45.5	2.3	1.5	3.2	NA
Ghana	634	532	467	376	325	319	49.7	2.7	1.3	4.4	Insufficient progress
Greece	5	4	4	3	3	3	40.0	1.8	0.6	3.3	NA
Grenada	41	37	29	25	27	27	34.1	1.7	-0.4	3.0	NA
Guatemala	205	173	178	120	109	88	57.1	3.4	2.8	4.0	Making progress
Guinea	1040	964	976	831	720	679	34.7	1.7	0.2	2.9	Insufficient progress
Guinea-Bissau	907	780	800	714	570	549	39.5	2.0	0.2	3.8	Insufficient progress
Guyana	171	205	210	232	241	229	-33.9	-1.2	-2.6	-0.3	No progress
Haiti	625	544	505	459	389	359	42.6	2.2	-0.2	3.8	No progress
Honduras	272	166	133	150	155	129	52.6	3.0	2.0	4.1	Making progress
Hungary	24	20	15	14	15	17	29.2	1.5	0.2	2.7	NA
Iceland	7	6	5	4	4	3	57.1	2.6	1.1	4.8	NA

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
India	556	471	374	280	215	174	68.7	4.6	3.5	5.7	Making progress
Indonesia	446	326	265	212	165	126	71.7	5.0	3.4	6.3	Making progress
Iran (Islamic Republic of)	123	80	51	34	27	25	79.7	6.4	5.3	7.8	Achieved
Iraq	107	87	63	54	51	50	53.3	3.1	1.5	5.2	Making progress
Ireland	11	10	9	8	7	8	27.3	1.5	-0.1	2.4	NA
Israel	11	10	8	7	6	5	54.5	3.0	2.1	3.9	NA
Italy	8	7	5	4	4	4	50.0	3.0	1.8	4.4	NA
Jamaica	79	81	89	92	93	89	-12.7	-0.4	-1.9	0.8	NA
Japan	14	11	10	7	6	5	64.3	3.6	2.6	4.8	NA
Jordan	110	93	77	62	59	58	47.3	2.6	1.2	4.1	Insufficient progress
Kazakhstan	78	92	65	44	20	12	84.6	7.5	6.5	8.5	NA
Kenya	687	698	759	728	605	510	25.8	1.2	-0.5	2.8	No progress
Kiribati	234	207	166	135	109	90	61.5	3.8	2.0	6.0	Making progress
Kuwait	7	9	7	6	5	4	42.9	2.0	0.4	3.0	NA
Kyrgyzstan	80	92	74	85	84	76	5.0	0.2	-0.9	1.3	NA
Lao People's Democratic Republic	905	695	546	418	294	197	78.2	6.1	3.9	7.7	Achieved
Latvia	48	54	30	22	19	18	62.5	3.9	2.3	5.4	NA
Lebanon	74	54	42	27	19	15	79.7	6.4	4.6	7.8	NA
Lesotho	629	525	649	746	587	487	22.5	1.0	-1.9	2.9	No progress
Liberia	1500	1800	1270	1020	811	725	51.7	2.9	0.8	4.2	Insufficient progress
Libya	39	25	17	11	9	9	76.9	5.7	2.8	8.8	NA
Lithuania	29	28	16	12	9	10	65.5	4.3	2.8	5.8	NA
Luxembourg	12	13	13	13	11	10	16.7	0.8	-1.6	2.6	NA
Madagascar	778	644	536	508	436	353	54.6	3.2	1.8	4.5	Making progress
Malawi	957	953	890	648	629	634	33.8	1.6	-0.7	3.3	No progress
Malaysia	79	68	58	52	48	40	49.4	2.7	0.8	3.9	NA

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
Maldives	677	340	163	101	87	68	90.0	9.2	6.2	11.6	Achieved
Mali	1010	911	834	714	630	587	41.9	2.2	0.6	3.2	Insufficient progress
Malta	13	14	15	13	11	9	30.8	1.6	-0.9	3.3	NA
Mauritania	859	824	813	750	723	602	29.9	1.4	-1.2	3.2	No progress
Mauritius	81	60	40	39	59	53	34.6	1.6	0.1	3.1	NA
Mexico	90	85	77	54	45	38	57.8	3.4	3.0	3.9	NA
Micronesia (Federated States of)	183	166	153	134	115	100	45.4	2.4	0.4	4.4	Insufficient progress
Mongolia	186	205	161	95	63	44	76.3	5.8	4.4	7.1	Achieved
Montenegro	10	12	11	9	8	7	30.0	1.3	-0.5	3.9	NA
Morocco	317	257	221	190	153	121	61.8	3.8	2.7	5.1	Making progress
Mozambique	1390	1150	915	762	619	489	64.8	4.2	2.5	5.5	Making progress
Myanmar	453	376	308	248	205	178	60.7	3.7	1.6	5.3	Making progress
Namibia	338	320	352	390	319	265	21.6	1.0	-1.3	3.1	No progress
Nepal	901	660	548	444	349	258	71.4	5.0	2.6	6.8	Making progress
Netherlands	12	13	14	11	8	7	41.7	2.0	1.1	3.3	NA
New Zealand	18	15	12	14	13	11	38.9	1.9	0.8	2.9	NA
Nicaragua	173	212	202	190	166	150	13.3	0.6	-0.7	1.9	No progress
Niger	873	828	794	723	657	553	36.7	1.8	0.4	3.0	Insufficient progress
Nigeria	1350	1250	1170	946	867	814	39.7	2.0	-0.2	3.3	No progress
Norway	7	7	7	7	6	5	28.6	1.5	0.3	2.5	NA
Occupied Palestinian Territory ^f	118	96	72	62	54	45	61.9	3.8	1.8	5.8	Making progress
Oman	30	20	20	20	18	17	43.2	2.3	0.6	3.8	NA
Pakistan	431	363	306	249	211	178	58.7	3.5	1.8	5.1	Making progress
Panama	102	94	82	87	101	94	7.8	0.3	-1.0	1.4	No progress

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
Papua New Guinea	470	377	342	277	238	215	54.3	3.1	1.1	5.3	Insufficient progress
Paraguay	150	147	158	159	139	132	12.0	0.5	-0.7	1.6	No progress
Peru	251	206	140	114	92	68	72.9	5.2	4.2	6.7	Making progress
Philippines	152	122	124	127	129	114	25.0	1.1	-0.8	2.4	No progress
Poland	17	13	8	6	4	3	82.4	6.8	5.4	8.2	NA
Portugal	17	15	13	12	11	10	41.2	2.1	1.1	2.9	NA
Puerto Rico	26	25	22	19	16	14	46.2	2.4	1.5	3.9	NA
Qatar	29	28	24	21	16	13	55.2	3.3	0.8	4.9	NA
Republic of Korea	21	19	16	14	15	11	47.6	2.6	1.8	3.5	NA
Republic of Moldova	51	66	49	39	34	23	54.9	3.2	2.3	4.2	NA
Romania	124	77	51	33	30	31	75.0	5.5	4.0	6.9	Making progress
Russian Federation	63	82	57	42	29	25	60.3	3.8	2.5	5.1	NA
Rwanda	1300	1260	1020	567	381	290	77.7	6.0	4.5	7.5	Achieved
Saint Lucia	45	43	54	67	54	48	-6.7	-0.2	-2.1	1.6	NA
Saint Vincent and the Grenadines	58	81	74	50	50	45	22.4	1.1	-0.5	2.4	NA
Samoa	156	119	93	77	64	51	67.3	4.4	2.4	6.3	Making progress
Sao Tome and Principe	330	263	222	181	162	156	52.7	3.0	1.2	5.4	Making progress
Saudi Arabia	46	33	23	18	14	12	73.9	5.5	3.7	7.5	NA
Senegal	540	509	488	427	375	315	41.7	2.2	0.7	3.6	Insufficient progress
Serbia	14	15	17	15	16	17	-21.4	-0.8	-2.8	0.9	NA
Sierra Leone	2630	2900	2650	1990	1630	1360	48.3	2.6	0.5	4.0	Insufficient progress
Singapore	12	13	18	16	11	10	16.7	0.8	-1.4	2.9	NA
Slovakia	11	9	8	7	6	6	45.5	2.8	1.8	4.0	NA
Slovenia	12	12	12	11	9	9	25.0	1.2	-1.0	2.6	NA
Solomon Islands	364	273	214	164	136	114	68.7	4.6	3.1	6.4	Making progress

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
Somalia	1210	1190	1080	939	820	732	39.5	2.0	0.3	3.9	Insufficient progress
South Africa	108	62	85	112	154	138	-27.8	-1.0	-2.5	0.6	No progress
South Sudan	1730	1530	1310	1090	876	789	54.4	3.1	1.4	4.7	Making progress
Spain	6	6	5	5	5	5	16.7	1.0	-0.1	1.8	NA
Sri Lanka	75	70	57	43	35	30	60.0	3.6	2.6	4.5	NA
Sudan	744	648	544	440	349	311	58.2	3.5	2.0	5.4	Making progress
Suriname	127	177	259	223	169	155	-22.0	-0.8	-2.4	0.8	No progress
Swaziland	635	537	586	595	436	389	38.7	2.0	-0.1	3.4	No progress
Sweden	8	6	5	5	4	4	50.0	2.5	1.2	3.3	NA
Switzerland	8	8	7	7	6	5	37.5	1.8	0.3	2.8	NA
Syrian Arab Republic	123	89	73	58	49	68	44.7	2.4	0.3	3.9	Insufficient progress
Tajikistan	107	129	68	46	35	32	70.1	4.8	2.9	7.0	Making progress
Thailand	40	23	25	26	23	20	50.0	2.7	0.8	4.3	NA
The former Yugoslav Republic of Macedonia	14	13	12	10	8	8	42.9	2.4	1.2	4.1	NA
Timor-Leste	1080	897	694	506	317	215	80.1	6.5	4.8	8.0	Achieved
Togo	568	563	491	427	393	368	35.2	1.7	0.5	3.2	Insufficient progress
Tonga	75	100	97	114	130	124	-65.3	-2.0	-4.0	0.0	NA
Trinidad and Tobago	90	77	62	62	65	63	30.0	1.5	0.5	2.5	NA
Tunisia	131	112	84	74	67	62	52.7	3.0	1.4	4.3	Making progress
Turkey	97	86	79	57	23	16	83.5	7.2	5.2	9.1	NA
Turkmenistan	82	74	59	53	46	42	48.8	2.7	0.4	5.8	NA
Uganda	687	684	620	504	420	343	50.1	2.8	1.3	4.1	Making progress
Ukraine	46	52	34	30	26	24	47.8	2.6	1.4	3.7	NA

Country ^a	MMR ^b						% change in MMR between 1990 and 2015 ^c	Average annual % change in MMR between 1990 and 2015	Range of uncertainty on annual % change in MMR (80% UI)		Progress towards MDG 5A ^d
	1990	1995	2000	2005	2010	2015			Lower estimate	Upper estimate	
United Arab Emirates	17	12	8	6	6	6	64.7	4.1	2.2	6.8	NA
United Kingdom	10	11	12	12	10	9	10.0	0.4	-0.3	1.2	NA
United Republic of Tanzania	997	961	842	687	514	398	60.1	3.7	2.2	5.0	Making progress
United States of America	12	12	12	13	14	14	-16.7	-0.6	-1.4	0.1	NA
Uruguay	37	36	31	26	19	15	59.5	3.7	2.4	5.1	NA
Uzbekistan	54	32	34	42	39	36	33.3	1.6	-0.8	4.0	NA
Vanuatu	225	184	144	116	94	78	65.3	4.2	2.3	6.2	Making progress
Venezuela	94	90	90	93	99	95	-1.1	-0.1	-1.3	0.9	NA
Viet Nam	139	107	81	61	58	54	61.2	3.8	1.6	5.2	Making progress
Yemen	547	498	440	428	416	385	29.6	1.4	-0.8	3.0	No progress
Zambia	577	596	541	372	262	224	61.2	3.8	2.6	5.2	Making progress
Zimbabwe	440	449	590	629	446	443	-0.7	0.0	-1.4	0.9	No progress

MDG: Millennium Development Goal; NA: data not available; UI: uncertainty interval.

^a Estimates have been computed to ensure comparability across countries, thus they are not necessarily the same as official statistics of the countries, which may use alternative rigorous methods.

^b MMR estimates have been rounded according to the following scheme: < 100 rounded to nearest 1; 100–999 rounded to nearest 1; and ≥ 1000 rounded to nearest 10.

^c Percentage change in MMR is based on rounded numbers.

^d Progress towards MDG 5A (i.e. to reduce MMR by 75% between 1990 and 2015) was assessed for the 95 countries with an MMR higher than 100 in 1990. See section 4.1 and Box 5 for additional details in the full report: World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), World Bank Group, United Nations Population Division (UNPD). Trends in maternal mortality: 1990 to 2015. Geneva: WHO; 2015 (available from: <http://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/>).

^e Vital registration data were available for analysis only up to 2011. Recent hospital surveillance data for Canada (excluding Quebec) indicate a decline of maternal deaths per 100 000 deliveries from 8.8 in 2007/2008–2008/2009 to 5.1 in 2011/2012; some 98% of deliveries in Canada occur in hospitals.

^f Refers to a territory.

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