

Maternal Mortality Uzbekistan 2000-2020

Internationally comparable MMR estimates by the Maternal Mortality Inter-Agency Group (MMEIG): WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division

Table 1: Estimates

Year	MMR ^{a*†}	PM ^{b*†}	HIV-related indirect deaths [†]	Live births ^c (Thousands)	Maternal deaths [†]
2000	43 [36, 52]	0.02 [0.02, 0.02]	0	554	236
2005	45 [37, 54]	0.02 [0.02, 0.02]	0	551	249
2010	38 [32, 46]	0.02 [0.02, 0.02]	0	648	245
2015	31 [26, 37]	0.02 [0.02, 0.02]	1	723	222
2020	30 [23, 40]	0.02 [0.02, 0.03]	1	832	251

^a Maternal mortality ratio (MMR) defined as maternal deaths per 100,000 live births for women of reproductive age (15-49 years).

^b Proportion maternal (PM) defined as the proportion of all-cause deaths for women of reproductive age (15-49 years) that are due to maternal causes.

^c UN Population Division, Department of Economic and Social Affairs. World Population Prospects. New York; 2022.

* The uncertainty intervals (UI) for all 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.

† Figures presented in the table are estimates based on national data, such as surveys or administrative records, or other sources, produced by the international agency when country data for some year(s) is not available, when multiple sources exist, or when there are data quality issues.

Table 2: Estimates

Period	Annual rate reduction*	Percent change in MMR*
2000, 2020	1.73 [0.03, 3.44]	29.29 [0.66, 49.74]
2010, 2020	2.19 [-1.02, 5.63]	19.7 [-10.74, 43.08]

* Figures presented in the table are estimates based on national data, such as surveys or administrative records, or other sources, produced by the international agency when country data for some year(s) is not available, when multiple sources exist, or when there are data quality issues.

Data from civil registration vital statistics system (CRVS)

Table 3: Data from civil registration vital statistics system (CRVS)

Study period*	Maternal deaths ^a	Female deaths ^b	CRVS adjustment factor ^{c†}	Sensitivity ^{d†}	Specificity ^{e†}	Completeness ^{f†}	Usability ^g	Maternal deaths not included ^h
[1985, 1986)	329	6750	1.505666	0.661238	0.999758	84.73512	0.8223212	NA
[1986, 1987)	403	6755	1.505313	0.661238	0.999758	84.18495	0.8225688	NA
[1987, 1988)	410	6592	1.504424	0.661238	0.999758	81.65490	0.8154977	NA
[1988, 1989)	269	6648	1.503726	0.661238	0.999758	81.23167	0.7906529	NA
[1989, 1990)	286	6567	1.502878	0.661238	0.999758	78.93029	0.7742745	NA
[1990, 1991)	236	6363	1.501949	0.661238	0.999758	74.71818	0.7616959	NA
[1991, 1992)	237	6730	1.500921	0.661238	0.999758	75.99368	0.7620145	NA
[1992, 1993)	210	7043	1.499119	0.661238	0.999758	76.97268	0.7757792	NA
[1993, 1994)	166	7842	1.496938	0.661238	0.999758	80.85370	0.7869289	NA
[1994, 1995)	111	8498	1.495624	0.661238	0.999758	83.82324	0.8031458	NA
[1995, 1996)	128	8687	1.493083	0.661238	0.999758	83.05765	0.8100697	NA
[1996, 1997)	76	9130	1.491955	0.661238	0.999758	84.55269	0.8181569	NA
[1997, 1998)	62	9194	1.489657	0.661238	0.999758	82.52401	0.8082400	NA
[1998, 1999)	48	9505	1.487546	0.661238	0.999758	83.82573	0.8072310	NA
[1999, 2000)	80	8918	1.485629	0.661238	0.999758	77.96136	0.8097512	NA
[2000, 2001)	182	9386	1.486306	0.661238	0.999758	81.38385	0.8167327	NA
[2001, 2002)	172	9676	1.484517	0.661238	0.999758	83.72415	0.8181195	NA
[2002, 2003)	143	9915	1.485332	0.661238	0.999758	86.38265	0.8282079	NA
[2003, 2004)	151	9685	1.485853	0.661238	0.999758	84.80736	0.8283229	NA
[2004, 2005)	138	9223	1.486184	0.661238	0.999758	81.34592	0.8215996	NA
[2005, 2006)	130	9776	1.486438	0.661238	0.999758	80.96737	0.8113891	NA
[2009, 2010)	160	9018	1.485991	0.661238	0.999758	74.01510	0.7370993	NA
[2010, 2011)	96	8963	1.485729	0.661238	0.999758	73.39502	0.7509540	NA
[2011, 2012)	144	9200	1.485632	0.661238	0.999758	76.70502	0.7616454	NA
[2012, 2013)	100	9546	1.485287	0.661238	0.999758	79.97654	0.7778692	NA
[2013, 2014)	116	9542	1.485167	0.661238	0.999758	81.52768	0.7982426	NA
[2014, 2015)	130	9401	1.484815	0.661238	0.999758	81.33760	0.8115726	NA
[2015, 2016)	133	9623	1.484697	0.661238	0.999758	83.68554	0.8259088	NA
[2016, 2017)	127	9880	1.484606	0.661238	0.999758	86.30328	0.8336605	NA
[2017, 2018)	107	9785	1.484547	0.661238	0.999758	86.70034	0.8288839	NA
[2018, 2019)	152	9498	1.487049	0.661238	0.999758	83.60915	0.8279417	NA
[2019, 2020)	130	9231	1.486983	0.661238	0.999758	81.02344	0.8213086	NA

Table 3: Data from civil registration vital statistics system (CRVS) (*continued*)

Study period [*]	Maternal deaths ^a	Female deaths ^b	CRVS adjustment factor ^{c†}	Sensitivity ^{d†}	Specificity ^{e†}	Completeness ^{f†}	Usability ^g	Maternal deaths not included ^h
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^a Maternal deaths from CRVS defined as ICD10 codes O00-O95; O98-O99 Pregnancy, childbirth and the puerperium and A34 Obstetrical tetanus. Late maternal deaths (O96) and those deaths due to sequelae of obstetric complications (O97) are excluded for the purposes of international comparison. WHO. International statistical classification of diseases and related health problems. Geneva; 2010.

^b Female deaths 15-49 from the Civil Registration and Vital Statistics System (CRVS).

^c CRVS adjustment factor = adjustment factor to account for the difference between CRVS-reported PM and true PM.

^d Sensitivity = proportion of correctly classified maternal deaths out of all true maternal deaths.

^e Specificity = proportion of correctly classified non-maternal deaths out of all true non-maternal deaths.

^f Completeness = percentage of registered deaths of females of reproductive age.

^g Usability = percentage of deaths that is estimated to be recorded with a well-defined code; completeness proportion*(1-proportion ill-defined)*100.

^h Did not meet inclusion criteria due to: 1) low completeness and usability, or 2) other specialized studies are used. Please see next section of the profile for details.

^{*} Kindly note the interpretation of notation: for a period [a,b) the observation starts on date a and ends before date b; thus a period covering 1st January 2000 through 31st December 2000 is denoted [2000,2001).

[†] Peterson E, Chou D, Moller A-B, Gemmill A, Say L, Alkema L. Estimating maternal mortality using data from national civil registration vital statistics systems: A Bayesian hierarchical bivariate random walk model to estimate sensitivity and specificity of reporting. arXiv:190908578 [stat] [Internet]. 2019 Sep 18 [cited 2021 Aug 11]; Available from: <http://arxiv.org/abs/1909.08578>.

Excluded data from CRVS

No data excluded

Data from other sources

No data available

Data from studies excluded in regression

No data excluded

Predictor variables used in the model

Table 4: Predictor variables used in the model

Year	GDP ^{a*} (Per capita, PPP)	GFR ^b (Per 1000 women ages 15-49)	SBA ^c (%)
2000	2972	90	100
2005	3658	80	100
2010	4961	80	100
2015	6352	80	100
2020	7378	90	100

^a WHO, MMEIG. Gross domestic product (GDP) per capita measured in purchasing power parity (PPP) equivalent dollars using 2017 as the baseline year were taken from World Bank's World Development Indicators (WDI) database, and in instances supplemented by unofficial estimates derived by MMEIG using growth rates in United Nations GDP data and/or previous MMEIG GDP estimates. Geneva; 2021.

^b General fertility rate (GFR) from UN Population Division, Department of Economic and Social Affairs. World Population Prospects. New York; 2022.

^c Skilled Birth Attendant (SBA) from WHO, UNICEF joint SBA database. Geneva; 2022. In some instances, supplemented with unofficial estimates derived by MMEIG. Annual series were estimated by fitting a multilevel time series (AR1) model with region- and country-specific intercepts and slopes.

* A 5-year moving average was calculated.

Estimates

(Input data) The following adjustments were applied to maternal deaths depending on the source type:

1. An age-standardization was applied to population based surveys that obtained data from the direct sisterhood method.
2. An upward adjustment of 10% was applied to all input data that were not obtained from CRVS or specialized studies, to account for underreporting.

(Model adjusted data) The following model adjustments were applied to maternal deaths depending on the source type and the definition of reported deaths

1. A model adjustment derived from BMIs was applied to maternal deaths obtained from CRVS.
2. A model adjustment was applied to observations of pregnancy-related deaths to remove accidental/incidental (non-maternal) deaths from the count.

