

Maternal Mortality Zimbabwe 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	388 [338, 462]	0.04 [0.03, 0.04]	499	424	1644
2005	533 [465, 625]	0.04 [0.04, 0.05]	555	430	2292
2010	618 [525, 721]	0.08 [0.07, 0.1]	308	478	2956
2015	408 [324, 495]	0.1 [0.08, 0.12]	107	482	1967
2020	357 [255, 456]	0.09 [0.07, 0.12]	78	486	1734

^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	0.29 [-0.73, 2.45]	5.7 [-15.67, 38.79]
2010, 2020	5.29 [3.59, 8.65]	41.06 [30.14, 57.91]

* 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)

No data available

Excluded data from CRVS

Table 3: Excluded data from CRVS

Study period [*]	Completeness ^a	Usability ^b	Reason for exclusion
[1990, 1991)	45.86573	41.70408	Usability < 60%

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

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

* 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).

Data from other sources

Table 4: Data from other sources

Study period [*]	Source	Source type	Maternal deaths ^a	Preganancy-related deaths ^b	Female deaths, 15-49	Maternal PM ^c	Pregnancy-related PM ^{d†}	MMR per 100,000 lb ^e	Adjusted MMR per 100,000 lb	F+ ^{f†}	F- ^{g†}	U+ ^{h†}
[1987.73, 1994.73)	DHS 1994	Survey	NA	NA	NA	NA	0.1425962	462.6513	403.6154	NA	NA	NA
[1991.63, 1992.63)	Census	Census	NA	NA	NA	NA	0.1100000	384.2606	314.1588	NA	NA	NA
[1992.77, 1999.77)	DHS 1999	Survey	NA	NA	NA	NA	0.1091732	776.4991	601.3845	NA	NA	NA
[1998.87, 2005.87)	DHS 2005 - 2006	Survey	NA	NA	NA	NA	0.0651155	773.4679	500.9565	NA	NA	NA
[2001.65, 2002.65)	Census	Census	NA	NA	NA	NA	0.0730000	900.3771	615.3438	NA	NA	NA
[2003.99, 2010.99)	DHS 2010 - 2011	Survey	NA	NA	NA	NA	0.1111436	1160.4809	931.2254	NA	NA	NA
[2006, 2007)	Maternal and Perinatal Mortality Study 2007	Specialized study	243	NA	5432	0.0447349	NA	509.7893	509.7893	NA	NA	NA
[2007.2, 2014.2)	MICS 2014	Survey	NA	NA	NA	NA	0.0870540	644.6868	504.9134	NA	NA	NA
[2008.97, 2015.97)	DHS 2015	Survey	NA	NA	NA	NA	0.1196195	698.5664	609.7261	NA	NA	NA
[2011.63, 2012.63)	Census	Census	NA	NA	NA	NA	0.0980694	536.7961	456.0399	NA	NA	NA
[2012.01, 2019.01)	MICS 2019	Survey	NA	NA	NA	NA	0.0878057	385.8916	332.6910	NA	NA	NA

^a Maternal deaths defined according to the ICD-10.

^b Pregnancy-related deaths defined according to ICD-10.

^c Maternal PM is calculated when deaths are defined as maternal.

^d Pregnancy-related PM is calculated when reported deaths are defined as pregnancy related deaths.

^e The MMR in this column is calculated from the PM.

^f False positive: true non-maternal death which may be incorrectly labeled as a maternal death.

^g False negative: maternal death which may be incorrectly classified as a non-maternal death.

^h Maternal deaths not registered in the CRVS.

^{*} 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).

[†] Calculated from studies which undertake specialized analyses of routine reporting of maternal deaths.

[‡] Survey data has been adjusted by 1.1 for underreporting and standardized by age when obtained using the direct sisterhood method.

Data from studies excluded in regression

No data excluded

Predictor variables used in the model

Table 5: Predictor variables used in the model

Year	GDP ^{a*} (Per capita, PPP)	GFR ^b (Per 1000 women ages 15-49)	SBA ^c (%)
2000	4369	130	70
2005	2962	130	68
2010	2864	140	75
2015	3713	130	84
2020	3601	120	88

^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.

