

OECD Health Statistics 2025

Definitions, Sources and Methods

Maternal mortality

Number of maternal deaths, all causes, per 100 000 live births (ICD-10 codes O00-O99).

Note: The maternal mortality series records very small numbers so there may be large annual fluctuations, particularly in countries with low population levels.

Sources and Methods

Australia

Sources:

2006-2022: **Australian Institute of Health and Welfare (AIHW)**, National Maternal Mortality Data Collection (NMMDC). Canberra: AIHW, see <https://www.aihw.gov.au/reports/mothers-babies/australias-mothers-babies/data>.

1997-2005: **Australian Bureau of Statistics (ABS)**, Causes of Death, Australia. Canberra: ABS, see <https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release#data-download>; and **ABS**. Births, Australia. Canberra: ABS, see <https://www.abs.gov.au/statistics/people/population/births-australia/latest-release>.

1960-1996: **Australian Institute of Health and Welfare (AIHW)**. General Record of Incidence of Mortality (GRIM) books. Canberra: AIHW, and ABS. Historical population. Canberra: ABS.

Methodology:

- From 1997-2005, deaths classified to ICD-10; from 1979-1996 to ICD-9; from 1968-1978 to ICD-8; and from 1960-1967 to ICD-7.
- 2006-2022: the AIHW's NMMDC collates data from the state and territory health authorities and other jurisdictional bodies responsible for primary data collection and review regarding maternal deaths; they receive clinical data on the women who died from patient administrative and clinical records, as well as from the State and Territory Maternal Mortality Committees where death reviews are undertaken. This information is collected through a variety of sources, including notifications from health professionals, coronial reports and notifications from related data collections, including the jurisdictional register of births, deaths and marriages. This collection includes deaths where the cause of death is considered to be related to the pregnancy but where an ICD-10 code other than O00-O99 has been recorded.

Deviation from the definition: Data from 2006 to 2022 include some deaths where the cause of death is considered to be related to the pregnancy but where an ICD-10 code other than O00-O99 has been recorded.

Break in time series in 2006: Change in data source and methodology.

Further information: <http://www.abs.gov.au/> and <https://www.aihw.gov.au/>.

Austria

Source: Statistics Austria, Gesundheitsstatistisches Jahrbuch (Todesursachenstatistik).

Further information: <https://www.statistik.at/en/>.

Belgium

Source: Statistics Belgium (former National Statistical Institute).

Methodology:

- Since 2018: the definition applied is modified: the data follow the WHO-advised ICD-10 code for maternal mortality (ICD-MM; 2012). (This includes e.g. suicide during the pregnancy or after the birth).

- Since 2010, the official numbers for livebirths and deaths are coming from the Population National Register (and not exclusively from vital registration). Livebirths and deaths of residents taking place in foreign countries are therefore included in the statistics.

↗ Break in time series in 2010 due to a change in source and coverage.

Canada

Source: Statistics Canada, Canadian Vital Statistics Birth and Death Databases.

From 2000: Table 13-10-0756-01.

1991-1999: Custom tabulations.

1960-1990: Selected Infant Mortality and Related Statistics, Canada, 1921-1990, Cat. No. 82-549.

Further information: <http://www.statcan.gc.ca/start-debut-eng.html>.

Chile

Source: National Committee of Vital Statistics, composed of the National Institute of Statistics (INE), the Ministry of Health (MINSAL, Department of Health Statistics and Information DEIS) and the National Service of Civil Identification Registry ("Servicio de Registro Civil e Identificación", SRCeI).

Coverage: Nationwide

⌚ **Deviation from the definition:** Data exclude late maternal deaths, i.e. obstetric deaths that occur after 42 days from the date of delivery (ICD-10 O96-O97).

Methodology: Maternal deaths are monitored through a special review of all deaths of women aged 10 to 54 years old ("auditorías de muertes maternas").

↗ Break in time series in 2009: A more accurate process of deaths registry validations explains the increase in 2009.

Further information: <https://deis.minsal.cl/>.

Colombia

Source: National Administrative Department of Statistics (DANE). Vital Statistics, Births and deaths.

Source of the Administrative Record: Sole Registry of Affiliates (Registro único de Afiliados, RUAF).

Estimation: The information has no adjustments, it is calculated with the totals obtained from the official registry.

Further information:

- <http://www.dane.gov.co/index.php/estadisticas-por-tema/demografia-y-poblacion/nacimientos-y-defunciones>.

- Anonymised microdata:

http://microdatos.dane.gov.co/index.php/catalog/MICRODATOS/about_collection/22/5.

Costa Rica

Source: National Institute of Statistics and Census (INEC). Unidad de Estadísticas Demográficas. See <https://www.inec.cr/sites/default/files/documentos-biblioteca-virtual/repoplacevcybiddefinitivos2020.xlsx>.

Further information: <http://www.inec.go.cr>.

Czechia

Source: Institute of Health Information and Statistics of Czechia.

Methodology: Data are based on clinical data (these figures are higher than the figures based on general mortality data).

Further information: <http://www.uzis.cz/en>.

Denmark

Sources:

From 2012 onwards: Statistics Denmark and Danish Maternal Mortality Group under the Danish Society of Obstetrics and Gynecology (DSOG).

Up until 2011: The Danish Health Data Authority, Cause of Death Register and Medical Birth Register.

Methodology:

- From 2012 onwards, the indicator is calculated by Statistics Denmark. Maternal mortality refers to the number of deaths among pregnant women and women within 42 days after the end of a pregnancy (regardless of the duration of the pregnancy), per 100,000 live births.

Up until 2011: The number of maternal deaths (ICD-10 codes O00-O99) per 100,000 births.

❶ **Deviation from the definition:** From 2012 and onwards the definition deviates by referring to the number of deaths among pregnant women and women **within 42 days** after the end of a pregnancy (regardless of the duration of the pregnancy), per 100,000 live births.

❷ **Breaks in time series in 2012** due to a change in source and methodology.

Further information:

- From 2012 onwards: <https://www.dst.dk/en/Statistik/temaer/SDG/globale-verdensmaal/03-sundhed-og-trivsel/delmaal-01/indikator-1#start>.

- Up until 2011: <https://www.esundhed.dk/Emner/Graviditet-foedsler-og-boern/Nyfoedte-og-foedsler-1997>, and <https://sundhedsdatastyrelsen.dk/data-og-registre/nationale-sundhedsregisteret/foedselsregisteret>.

Estonia

Sources:

From 2008: National Institute for Health Development, Causes of Death Registry and Medical Birth Registry.

Until 2007: Statistics Estonia, Causes of death database.

Finland

Source: Statistics Finland, Cause of death register.

Further information: http://www.stat.fi/index_en.html.

France

Sources:

From 2016: Special confidential inquiry into maternal deaths, *Les morts maternelles en France : mieux comprendre pour mieux prévenir. 7e rapport de l'Enquête nationale confidentielle sur les morts maternelles (ENCMM), 2016-2018*, available at <https://www.santepubliquefrance.fr/maladies-et-traumatismes/maladies-cardiovasculaires-et-accident-vasculaire-cerebral/maladies-vasculaires-de-la-grossesse/documents/enquetes-etudes/les-morts-maternelles-en-france-mieux-comprendre-pour-mieux-prevenir.-7e-rapport-de-l-enquete-nationale-confidentielle-sur-les-morts-maternelles>.

2001-2015: Special confidential inquiry into maternal deaths. *Les morts maternelles en France : Mieux comprendre pour mieux prévenir, 6e rapport de l'Enquête nationale confidentielle sur les morts maternelles (ENCMM) 2013-2015*, available at <https://cress-umr1153.fr/wp-content/uploads/2023/09/Synthese-MORTALITE-MATERNELLE.pdf>.

Note: It is known that administrative causes of death data underestimate maternal deaths. This is why a special confidential survey has been conducted since 1998 (first results were published in 2001), to better count them and to thoroughly analyse the causes. Data from ENCMM are enhanced system data, not routine statistics. For further information, see

https://journals.lww.com/greenjournal/Fulltext/2013/10000/Ten_Years_of_Confidential_Inquiries_Into_Maternal.5.aspx.

From 1970 to 2000:

- CépiDc of the **Institut national de la santé et de la recherche médicale** (Inserm) for the numbers of maternal deaths (ICD-10 codes O00-O99), medical causes of deaths.

- **Institut national de la statistique et des études économiques** (Insee) for the numbers of live births and the demographic situation in France.

❷ **Break in time series in 2001** due to a change of source.

Coverage:

From 2001, data cover maternal deaths up until 42 days (international definition). Since 2001, data include overseas departments.

Before 2001, data correspond to ICD codes and thus include a few cases over 42 days.

Further information: <https://www.santepubliquefrance.fr/etudes-et-enquetes/enquete-nationale-confidentielle-sur-les-morts-maternelles>.

Germany

Source: Federal Statistical Office, Statistics on the natural movement of the population 2023 and Statistics on the causes of death 2023.

Coverage: Data include the number of maternal deaths (ICD-10: O00-O99 Pregnancy, childbirth and the puerperium). Excluded are cases of late maternal deaths coded with ICD-10 O96 (Death from any obstetric cause occurring more than 42 days but less than one year after delivery) and O97 (Death from sequelae of obstetric causes).

↗ **Break in time series in 1998:** From the reporting year 1998, for the first time, data have been collected according to ICD-10. In the years before 1998, data have been collected according to ICD-9 and cases on late maternal deaths could not be separated.

💡 Until 1989, data refer to the Federal Republic of Germany; from 1990 onwards data refer to after reunification.

Further information: <http://www.destatis.de> or <http://www.gbe-bund.de>.

Greece

Source: Hellenic Statistical Authority.

Further information: <https://www.statistics.gr/en/statistics/-/publication/SPO13>.

Hungary

Source: Hungarian Central Statistical Office (KSH), Demographic Yearbook.

Methodology: The source of mortality data is the data collection of the Hungarian Central Statistical Office on the 'Death Record' based on the Section 30 of Act CLV of 2016 and the data transmission on 'Death Certificate', 'Notice Regarding Modification of the Death Certificate', 'Death Certificate of the Perinatal Deceased', 'Notice on Perinatal Death (pathological histology)' according to Section 42 of Government Regulation 351/2013 (X.4).

Further information: <http://www.ksh.hu>.

Iceland

Source: Statistics Iceland.

Data are based on the Register of causes of death. The Register was with Statistics Iceland up to the year 2011 when it became the responsibility of The Directorate of Health. See

https://px.hagstofa.is/pxen/pxweb/en/Ibuar/Ibuar_Faeddirdanir_danir_danarmein/MAN05301.px.

Methodology:

- The maternal mortality series records very small numbers so there may be large annual fluctuations, particularly in countries with low population levels.
- Classification according to the 9th revision of the WHO's International Classification of Diseases (ICD-9) (1986-1995) and to its 10th revision (ICD-10) (1996-2004). The table shows main causes of death according to the European shortlist.

Further information: https://px.hagstofa.is/pxen/pxweb/en/Ibuar/Ibuar_Faeddirdanir/.

Ireland

Source: Central Statistics Office.

Methodology:

- Figures prior to 2007 refer to ICD-9 630-676. From 2007, the figures refer to ICD-10 O00-O99.

- Data refer to direct maternal deaths.

Further information: <https://www.cso.ie/en/releasesandpublications/ep/p-vsar/vitalstatisticsannualreport2016/>.

Israel

Source: Central Bureau of Statistics. Based on death registration.

Methodology:

- From 1998, deaths classified to ICD-10 codes O00-O99.
- For the years 1979-1997, death classified to ICD9 codes 630-676.
- For the years 1970-1978, death classified to ICD8 codes 640-679.
- The number of maternal deaths is relatively small and therefore subjected to large variance between the years.

Further information: <https://www.cbs.gov.il/EN/Pages/search/yearly.aspx>.

Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Italy

Source: Heath for All Italy and Istat Vital statistics on cause of death, ISTAT, Istituto Nazionale di Statistica (National Institute of Statistics).

Methodology: Data refer to all deaths occurring in (not only residents).

Further information: <http://dati.istat.it/Index.aspx?QueryId=42610>.

Japan

Source: Ministry of Health, Labour and Welfare, Vital Statistics of Japan (published annually).

Further information: <https://www.e-stat.go.jp/en/stat-search/files?page=1&toukei=00450011&tstat=000001028897>.

Korea

Sources:

From 2009: Statistics Korea, Annual Report on the Cause of Death Statistics (based on vital registration).

1995-2008: Ministry of Health and Welfare, Korea Institute for Health and Social Affairs, Maternal Mortality Survey Report.

Methodology: Total deaths of pregnant women, or deaths within 42 days of termination of pregnancy (caused by the pregnancy itself), divided by estimated total live births based on vital registration.

Further information: <http://kosis.kr/eng/>.

Latvia

Source: Centre for Disease Prevention and Control.

Methodology:

1) Register of Causes of Death (Number of deaths of women while pregnant or within 42 days of termination of pregnancy, but not from accidental or incidental causes).

2) Medical Birth Register (Number of live-born children).

Further information:

https://statistika.spkc.gov.lv/pxweb/en/Health/Health_Mirstiba/MOR90_Mates%20mirstiba_vec_grupas_px/.

Lithuania

Sources:

From 2010 onwards: **Institute of Hygiene**, State Register of Death Cases and Their Causes, number of maternal deaths (ICD-10 codes O00-O99).

Up until 2009: **State Data Agency (Statistics Lithuania)**, number of maternal deaths (ICD-10 codes O00-O99).

<https://osp.stat.gov.lt/statistiniu-rodikliu-analize?hash=97329dd6-4f91-4ee0-8520-713f86b93347#/>

Further information: **State Data Agency (Statistics Lithuania)**, number of live births available at <https://osp.stat.gov.lt/statistiniu-rodikliu-analize?hash=dad42bae-6ea1-4cdf-bdab-8a670d751e4d#/>.

Luxembourg

Source: Eurostat database. **Ministry of Health, Health Directorate**, Causes of death register for the numerator; **NSO (STATEC)** for the denominator.

Methodology:

Numerator: Number of maternal deaths (<= 42 days post-partum) by ICD-10 O00-O99, only from residents, in Luxembourg.

Denominator: Number of live births from residents, in Luxembourg or abroad.

Mexico

Sources: **National Institute of Statistics (INEGI) / Ministry of Health**, Mortality Database 1970-2023 and ENADID National Dynamic Demographic Survey 1992-1997. **National Population Council (CONAPO)**, Mexico 2023, Demographic estimations 1990-2019 and Population projections 2020-2070.

Maternal Mortality in 2000: estimates developed by **WHO, UNICEF and UNFPA**. Geneva 2004.

Methodology:

- Data refer to ICD-10 codes A34, D39.2, E23.0 (Sheehan syndrome only), F53, M83.0, O00-O95, O98-O99 and women with B20-B24 (until 2014) dying during pregnancy, labor or puerperium.

↗ **Break in time series in 2011:** From 2011, information from birth certificates and administrative death records is used, corrected for underreporting.

↗ **Break in time series in 2002:** Since 2002, the Ministry of Health has started applying a modified version of the Reproductive Age Mortality Studies Method (RAMOS) to examine maternal deaths certificates in all women of reproductive age, selecting and studying those with suspicious causes of maternal deaths. Thus, the problems concerning under-reporting and misclassification have been corrected. Maternal mortality ratio dating back to 2002 was modified because of new estimations of live births from the National Council of Population, as a result of the Census 2020.

↗ **Break in time series in 1990:** According to the demographic surveys of 1992 and 1997, the under-registration of maternal mortality in Mexico is approximately 40%. This figure is similar to the one in the WHO publication of maternal deaths in 2000. For this reason, the correction factor from the demographic surveys was used to correct the Maternal Mortality Ratio (MMR) from 1990 to 2001.

- Before 2007, the MMR included all maternal deaths registered in the statistical year, despite the fact that some of them had occurred years before or had occurred in other countries but were registered in Mexico. Starting in 2007, the MMR only contains maternal deaths that occurred in the country and in the statistical year in the numerator.

Further information: <http://www.inegi.gob.mx/> and <http://www.salud.gob.mx/> (both in Spanish).

Netherlands

Source: **Statistics Netherlands**. Maternal mortality data available at

<https://opendata.cbs.nl/statline/#/CBS/en/dataset/7052eng/table?dl=B2FF1>, and number of live births data available at <https://opendata.cbs.nl/#/CBS/en/dataset/85722eng/table?dl=B5089>. Please note that data for 2023 are still provisional.

Further information: <http://www.cbs.nl>. Also see <https://www.cbs.nl/en-gb/our-services/methods/surveys/brief-survey-descriptions>.

New Zealand

Source: **Ministry of Health** (National Collections).

- Data have been supplied according to the Direct Maternal Death definition which NZ uses: "A direct maternal death is a death resulting from obstetric complications of the pregnant state (pregnancy, labour and the puerperium), from interventions, omissions, incorrect treatment or from a chain of events resulting from any of the above".
- Data supplied also include Indirect Obstetric Deaths: "Those resulting from previous existing disease that developed during pregnancy, and which was not due to direct obstetric causes, but which was aggravated by physiological effects of pregnancy."
- Note that due to the relatively small numbers of maternal deaths involved and NZ's small population, the death rate can fluctuate markedly from year to year, so caution should be exercised when making international comparisons.
- Note that due to the establishment of the Perinatal and Maternal Mortality Review Committee (PMMRC), more deaths have been identified as maternal deaths (PMMRC has access to multiple data sources, including the Ministry of Health, and sends its findings to the National Collections and Reporting team coders). The PMMRC is a statutory committee established under Section 59E of the New Zealand Health and Disability Amendment Act 2010. The Committee met for the first time in August 2005.
- Maternal mortality requires cause of death information to be available. The stages of processing cause of death data in NZ, including the extended length of time that some coronial inquiries can take, cause delays in provision of final mortality data.

Further information: <http://www.health.govt.nz/nz-health-statistics/national-collections-and-surveys/collections/mortality-collection> and <http://www.hqsc.govt.nz/our-programmes/mrc/pmmrc/>.

Norway

Source: The Norwegian Institute of Public Health, Statistics on causes of death. Register of Causes of Death.

Coverage: The statistics on causes of death comprise all deaths, covering Norwegian residents, whether the person in question was a Norwegian citizen or not and irrespective of whether the deaths occurred in Norway or not.

Methodology:

- Statistics on causes of death have been published annually by Statistics Norway from 1925. Statistics Norway's Division for Health Statistics was the data processor for the Cause of Death Registry, which is owned by the Norwegian Institute of Public Health.
- ICD-10 was implemented in 1996.
- The Norwegian Institute of Public Health has been host of the CoD register since 2014.

Further information: https://statistikk.fhi.no/daar/4WsXdiMdufuDYL4RLE8A3xk_vE0WCuVW.

Poland

Source: Statistics Poland, published annually (Demographic Yearbook of Poland).

Methodology: Sources of data on death are administrative registers and the individual documentation "Notification of death", secondarily used by national statistics.

Further information: <http://stat.gov.pl/en/>.

Portugal

Source: Statistics Portugal Mortality by causes of death.

Coverage: National (place of residence of the mother = Portugal). Maternal deaths in Portugal of women residing outside Portugal, and live births born in Portugal to mothers residing outside Portugal are not included.

Methodology: ICD-10 codes; O00-O95; O98-O99.

Further information:

https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0009334&contexto=b&dselTab=tab2&xlang=en.

Slovak Republic

Source: Statistical Office of the Slovak Republic.

Further information: <https://slovak.statistics.sk/wps/portal/ext/themes/demography/population/metadata/>, and also <https://datacube.statistics.sk>.

Slovenia

Source: National Institute of Public Health, Slovenia. Perinatal information system of the Republic of Slovenia, Notification of death, Medical Certificate of Death and cause of Death.

Methodology: The following WHO definitions are used:

- Maternal deaths: The annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy.
- Late maternal deaths: The annual number of deaths of women from direct or indirect obstetric causes, more than 42 days but less than one year after termination of pregnancy.
- According to these definitions in 2018 there were 0 maternal deaths (0 per 100,000 live births) and 3 late maternal deaths (15,6 per 100,000 live births) in Slovenia. All 3 late maternal deaths were indirect.

Further information: <http://www.nijz.si/>.

Spain

Source: National Statistics Institute. Death statistics according to causes of death.

Methodology: Data apply exclusively to maternal deaths of residents in Spain and live births whose mother was a resident in Spain.

 **Break in time series:** Data for the period 1960-1979 may include deaths of non-residents in Spain (which occurred on the Spanish territory) and live births whose mother was a non-resident in Spain.

Further information:

https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176780&menu=ultiDatos&idp=1254735573175.

Sweden

Source: The National Medical Birth Register and The National Code of Death Register, **National Board of Health and Welfare**.

Methodology:

- Number of deceased mothers, with underlying causes of death (ICD-10 codes O00-O99) expressed per 100 000 live births (regardless of length of pregnancy and child weight).
- Statistics on causes of death were published annually by Statistics Sweden (SCB) between 1911-1993. The National Swedish Board of Health and Welfare has been responsible for the publication since 1994.
- The statistics on causes of death comprise all deaths, covering Swedish residents, whether the person in question was a Swedish citizen or not and irrespective of whether the deaths occurred in Sweden or not.
- ICD-10 was implemented in 1997.

Further information: <https://www.socialstyrelsen.se/en/> and <http://www.scb.se>.

Switzerland

Source: Federal Statistical Office, Neuchâtel, Statistics of causes of death and Vital Statistics.

Further information: <http://www.bfs.admin.ch/bfs/portal/en/index.html>.

Türkiye

Sources:

2007 onwards: **Ministry of Health, General Directorate of Public Health**.

2006: **ICON Institute and Hacettepe University Institute of Population Studies**, National Maternal Mortality Study.

2002-2005: Projection results.

1998: Data based on hospital record survey results.

1990: Data based on projection.

1981: Data obtained by the Sister's method in the Türkiye Population Survey.

1973: Data obtained by the Double Recording System in the Türkiye Population Survey.

Methodology:

2012 onwards: Data are collected from the Death Notification System.

2007-2011: Data on number of maternal deaths are collected from the provinces by active surveillance. The figure referred to data which had been collected from all healthcare facilities (both public and private) and other government and local agencies (cemetery records, village headman offices and the Gendarmerie death records) that concerned maternal mortality.

2006: Confidence interval of the survey was found to be 95 % with the upper limit of maternal mortality ratio of 31.0 and the lower limit of maternal mortality ratio of 26.0.

2002-2005: Projection results according to National Maternal Mortality Study (2006) and Public Health Institution data.

Further information: <http://www.hips.hacettepe.edu.tr> and

<https://dosyamerkez.saglik.gov.tr/Eklenti/28593,health-statistics-yearbook-pdf.pdf?0>.

United Kingdom

Sources:

From 1974:

- England and Wales: **Office for National Statistics**, Mortality Statistics: Childhood, infant and perinatal, England and Wales' annual reference volumes series DH2.

- Scotland: **ISD Maternity**, Annual Reports.

- Northern Ireland: **Northern Ireland Statistics and Research Agency**, Annual Reports.

1960-1973: Registrar General's annual Statistical Review of England and Wales (1960-1973).

Coverage:  1960-1973: Data cover only England and Wales.

Further information:

- England and Wales: <http://www.statistics.gov.uk/>.

- Scotland: <http://www.nrscotland.gov.uk>.

- Northern Ireland: <http://www.nisra.gov.uk>.

United States

Sources:

1998-2007 and 2018 onwards: **U.S. Department of Health and Human Services/Centers for Disease Control and Prevention/National Center for Health Statistics**. Deaths: Final (several issues). Data are not available from 2008 to 2017.

1980 to 1997: **U.S. Department of Health and Human Services/Centers for Disease Control and Prevention/National Center for Health Statistics**. Vital Statistics of the United States, Volume II, Mortality, and Part A (published annually).

1960-1979: **U.S. Department of Health and Human Services/Centers for Disease Control and Prevention/National Center for Health Statistics**. Vital Statistics of the United States, Vol. II Mortality. Unpublished data.

Coverage: National. Vital Statistics Registration System. Maternal deaths include ICD-10 codes A34, O00-O95, O98-O99.

 **Breaks in time series in 2018, 2003 and 1999**: There are breaks in time series due to changes in calculation methods.

- Maternal mortality data for 2008-2017 are not currently available because of variability and difference in use of a checkbox question across states. - In reaction to the last of the states introducing a standard question but noting reporting errors with the question, calculating national maternal mortality rates was resumed in 2018 but restrict use of this supplemental item to the deceased aged 10-44 years.

 The large increase in the maternal mortality rate in 2003 is most likely due to the increasing use by the U.S. of the new question format for deaths associated with pregnancy, childbirth, and the puerperium.

- The 2003 revision of the U.S. Standard Certificate of Death introduced a standard question format with categories designed to utilise additional codes available in ICD-10 for deaths associated with pregnancy, childbirth, and the puerperium. States incrementally introduced the standard item or replaced pre-existing

questions with the standard item. A separate pregnancy status item on the death certificate results in the identification of more maternal deaths.

- Changes have been made to the classification and coding of maternal deaths between ICD-9 and ICD-10, effective with mortality data for 1999. ICD-10 changes pertain to indirect maternal causes and timing of death relative to pregnancy. If only indirect maternal causes of death (i.e., a previously existing disease or a disease that developed during pregnancy that was not due to direct obstetric causes but was aggravated by physiologic effects of pregnancy) are reported in Part I, and pregnancy is reported in either Part I or Part II, ICD-10 classifies this as a maternal death. ICD-9 only classified the death as maternal if pregnancy was reported in Part I.

- Some U.S. States death certificates include a separate question regarding pregnancy status. A positive response to the question is interpreted as "pregnant", reported in Part II of the cause-of-death section of the death certificate. If the medical certifier did not specify when death occurred, relative to the pregnancy, it is assumed that the pregnancy terminated 42 days or less, prior to death. Under ICD-10, a new category has been added for deaths from maternal causes that occurred more than 42 days after delivery or termination of pregnancy (O96-O97). In 1999, there were 15 such deaths.

Further information: NCHS Vital Statistics website, <http://www.cdc.gov/nchs/nvss.htm>.

NON-OECD ECONOMIES

Argentina

Source: Vital Statistics, Dirección de Estadísticas e Información en Salud, Ministerio de Salud.

Coverage: 14.2% of under-registration of maternal deaths.

Methodology: The definition of Maternal Death used by Argentina is the one used by the WHO, which excludes Late Maternal Deaths and sequelae, and includes certain diseases classified outside Chapter 15, such as the ICD-10 code "C58".

Further information: <https://doi.org/10.26633/RPSP.2019.13>, and <https://www.argentina.gob.ar/salud/deis>.

Bulgaria

Source: National Statistical Institute.

Coverage: The deceased women from pregnancy, parturition and postpartum complications (Chapter XV-ICD-10).

Methodology: Maternal mortality rate represents the ratio of the number of dead women from pregnancy, parturition and postpartum complications (Chapter XV-ICD-10) per 100,000 live births.

Further information:

Croatia

Source: Central Bureau of Statistics, Vital statistics data.

Peru

Sources:

Numerator (Number of maternal deaths in a specific period): National Centre for Epidemiology, Prevention and Disease Control [CDC], (2025). Maternal Mortality Epidemiological Surveillance System.

General Office of Information Technology [OGTI], (2025). National Deaths System.

Denominator (Estimated number of live births in a specific period): National Institute of Statistics and Informatics [INEI], (2020). PERU: Departmental Population Estimates and Projections by Calendar Years and Single Age, 1995-2030.

Coverage: National estimates.

Methodology:

- The methodology used is the capture-recapture technique. Through this, it is possible to estimate the under-registration or omission of deaths not captured by any registration system, and the total of maternal deaths. Firstly, the sources of information on maternal deaths (life events registry – SINADEF - and the epidemiological surveillance database) were linked, in order to then proceed with the estimation of the total under-registration and by each source of information, the total of maternal deaths and other indicators such as the ratio and rate of maternal mortality.

The estimates made by years and five-year periods are updated considering the estimates of live births from INEI published after the 2017 CENSUS.

Further information: Muerte Materna – CDC MINSA (<https://www.dge.gob.pe/portalnuevo/vigilancia-epidemiologica/muerte-materna/>), Sala Situacional de Muerte Materna y Morbilidad Materna Extrema (https://app7.dge.gob.pe/maps/muerte_materna/), and https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1722/.

Romania

Source: INS Romania - Vital statistics.

Coverage:

- From 2013 onwards, data refer to live-births whose mothers (legal tutor) had their usual residence in Romania. 2012 data refer to permanent residence or usual residence. Up until 2011, data refer to live-births whose mothers (legal tutor) had their permanent residence in Romania.
- Maternal deaths cover deceased with permanent residence in Romania until 2011, with permanent residence or usual residence for 2012, and deceased with usual residence in Romania beginning with 2013.

Methodology: Maternal deaths registered with ICD O00-O99 codes. The indicator is calculated based on the INS Romania Statistical survey on mortality.

Further information: <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>.

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<https://www.oecd.org/en/data/datasets/oecd-health-statistics.html>