

Key notes on: Maternal Health

- A maternal death is the death of a woman during pregnancy or within six weeks of the end of a pregnancy, from a cause that is directly or indirectly related to pregnancy e.g. obstetric haemorrhage, cardiac disease, but not a car accident
- Maternal deaths are usually reported as the Maternal Mortality Ratio – the number of maternal deaths per 100,000 livebirths
- Millennium Development Goal 5 achieved a 44% reduction in maternal deaths from 1990 to 2015; in 2015 the global MMR was 216/100,000
- Presently, it is estimated that 300,000 women die every year in association with childbirth – over 830 women EVERY day
- Sustainable Development Goal 3 aims to achieve a Maternal Mortality Ratio of less than 70/100,000 globally, by 2030
- Australia is a very safe place to give birth – the MMR ranges from 8-12/100,000 confinements. However, up to half of the maternal deaths are considered to have potentially preventable factors and there has been no sustained improvement in the MMR for forty years.
- There is increasing focus on monitoring severe maternal morbidity, to compliment the study of maternal mortality and to identify system-wide issues that need addressing
- There is no routine monitoring of severe maternal morbidity in Australia
- Victoria commenced maternal intensive care unit (ICU) admission reporting on the 1st July 2017, as the beginning step in monitoring severe maternal morbidity; Victoria also reports on the number of women who experience a primary postpartum haemorrhage $\geq 1500\text{mL}$ (major haemorrhage)
- Up to half of maternal ICU admissions are considered potentially preventable
- 1 in 50 women giving birth in Victoria experience a major haemorrhage

Key resources/recommended reading

Electronic references:

Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. WHO, Geneva. 2015. Available at:

<https://www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/>

UNFPA, ICM, WHO. The State of the World's Midwifery (SoWMMy) 2014: A Universal Pathway. A Woman's Right to Health. Available at:

http://www.unfpa.org/webdav/site/global/shared/documents/publications/2014/EN_SoWMMy2014_complete.pdf

Scottish Confidential Audit of Severe Maternal Morbidity: reducing avoidable harm. 10th Annual Report (Data from 2012 and 10-year summary). Healthcare Improvement Scotland, Edinburgh, 2014. Available at:

http://www.healthcareimprovementscotland.org/our_work/reproductive_maternal_child/reproductive_health/scasmm.aspx

AIHW 2017. Maternal deaths in Australia 2012–2014. Cat. no. PER 92. Canberra: AIHW. Available at:

<https://www.aihw.gov.au/reports/mothers-babies/maternal-deaths-in-australia-2012-2014/data>

Australian Institute of Health and Welfare 2019. Australia's mothers and babies 2017—in brief. Perinatal statistics series no. 35. Cat. no. PER 100. Canberra: AIHW. <https://www.aihw.gov.au/reports/mothers-babies/australias-mothers-and-babies-2017-in-brief/contents/table-of-contents>

See AIHW website for further information and updated reports at: <https://www.aihw.gov.au/reports-data/population-groups/mothers-babies/overview>

CCOPMM. Victoria's Mothers, Babies and Children 2017. CCOPMM, Safer Care Victoria. 2017. Available at: <https://www.bettersafecare.vic.gov.au/about-us/about-scv/councils/ccopmm/reports#goto-victorias-mothers,-babies-and-children-reports>

Australasian Maternity Outcomes Surveillance System (AMOSS): see www.amoss.com.au

MBRRACE-UK: Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK. For all maternal and perinatal mortality reports for the United Kingdom – see <https://www.npeu.ox.ac.uk/mbrance-uk>

Articles of interest:

The Lancet series on midwifery see: <https://www.thelancet.com/series/midwifery>

Homer CS, Friberg IK, Dias MAB, ten Hoop-Bender P, Sandall J, Speciale AM, et al. The projected effect of scaling up midwifery. *The Lancet*. 2014;384(9948):1146-57.

Lawton B, Wilson L, Dinsdale R, Rose S, Brown S, Tait J, et al. Audit of severe acute maternal morbidity describing reasons for transfer and potential preventability of admissions to ICU. *Australian & New Zealand Journal of Obstetrics & Gynaecology*. 2010;50:346-51.

De Brouwere V. The Comparative Study of Maternal Mortality over Time: The Role of the Professionalisation of Childbirth. *Social History of Medicine*. 2007;20:541–562.

Centre for Maternal and Child Enquiries (CMACE). Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer: 2006–08. The Eighth Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. *BJOG* 2011;118(Suppl. 1):1–203.

Pollock W, Rose L, Dennis C-L. Pregnant and postpartum admissions to the intensive care unit: a systematic review. *Intensive Care Medicine*. 2010;36:1465–74.

Pollock W, Sullivan E, Nelson S, King J. Capacity to monitor severe maternal morbidity in Australia. *Australian & New Zealand Journal of Obstetrics & Gynaecology*. 2008;48:17-25.

Geller S, Cox S, Callaghan W, Berg C. Morbidity and mortality in pregnancy: Laying the groundwork for safe motherhood. *Womens Health Issues*. 2006;16:176-88.

Kildea S, Pollock WE, Barclay L. Making pregnancy safer in Australia: the importance of maternal death review. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2008 Apr;48(2):130-6.

MacDonald EJ, Geller SE, Lawton B. Establishment of a national severe maternal morbidity preventability review in New Zealand. *International Journal of Gynecology & Obstetrics*. 2016 Oct;135(1):120-3.

Geller SE, Koch AR, Garland CE, MacDonald EJ, Storey F, Lawton B. A global view of severe maternal morbidity: moving beyond maternal mortality. *Reproductive health*. 2018 Jun;15(1):98.

Main EK. Reducing maternal mortality and severe maternal morbidity through state-based quality improvement initiatives. *Clinical obstetrics and gynecology*. 2018 Jun 1;61(2):319-31.