## **Maternal mortality**

Pregnancy and childbearing, whilst offering women opportunities for personal development and fulfilment, also present inherent risks. Maternal mortality is an important indicator of a woman's health and status. The Sustainable Development Goals set a target of reducing the maternal mortality ratio to less than 70 deaths per 100 000 live births by 2030.

295 000 maternal deaths were estimated to have occurred worldwide in 2017, and a woman's lifetime risk of maternal death – the probability that a 15-year-old woman will die eventually from a maternal cause – is 0.53, that is one woman in 190, which is approximately half the rate reported in 2000 (WHO, 2019[1]).

The leading causes of deaths are post-partum haemorrhage (PPH), infections, high blood pressure during pregnancy, and unsafe abortion. Many of these deaths are preventable and occur in resource-poor settings (WHO, 2019<sup>[1]</sup>). Fertility and maternal mortality have strong associations with economic development. Risk of maternal death can be reduced through family planning, better access to high-quality antenatal, intrapartum, and postnatal care by skilled health professionals.

Maternal mortality ratio (MMR) averaged around 140 deaths per 100 000 live births in lower-middle- and lowincome Asia-Pacific countries and territories in 2019, almost three times the upper-middle-income and more than 15 times the high-income Asia-Pacific countries and territories average, respectively (Figure 3.20, left panel). Estimates for 2019 show a small group of countries and territories – Singapore, Australia, Japan and New Zealand – with very low ratios (less than 1 per 10 000 live births), whereas Solomon Islands, Nepal and Papua New Guinea had high MMRs at 200 or more deaths per 100 000 live births. Almost 15% of the world's maternal deaths occurred in India and Pakistan alone.

Despite high ratios in certain countries and territories, significant reductions in maternal mortality have been achieved in Asia-Pacific over the last 19 years (Figure 3.20, right panel). The MMR declined by 44% between 2000 and 2019 across lower-middle- and low-income Asia-Pacific countries and territories. Cambodia, Lao PDR and Indonesia showed the largest reductions amongst countries and territories reporting ratios higher than the low- and lower-middle-income countries and territories average in 2019. According to a study (WHO, 2015<sub>[2]</sub>), Cambodia's success is related to reduced fertility through wider use of contraceptives and increased coverage of antenatal care and skilled birth attendance – achieved through increasing the number of midwives and facilities providing Emergency Obstetric and Newborn Care. The national scale-up of the Early Essential Newborn Care (EENC) programme – comprising simple and cost-effective interventions that benefit mothers and newborns – is a key achievement of Cambodian Government with support from WHO.

Across Asia-Pacific countries and territories, maternal mortality is inversely related to the coverage of skilled birth attendance (Figure 3.21). Papua New Guinea and Bangladesh reported that less than 60% of live births are attended by skilled health professionals (see indicator "Pregnancy and birth" in Chapter 5) and present relatively high MMRs -above 160 deaths per 100 000 live births-.

Higher coverage of antenatal care<sup>1</sup> is associated with lower maternal mortality, indicating the effectiveness of antenatal care across countries (Figure 3.22). Addressing disparities in the unmet need of family planning and providing essential reproductive health services to underserved populations may also substantially reduce maternal deaths in the region (UNESCAP, 2017<sub>[3]</sub>).

To improve quality of care, maternal death surveillance and response (MDSR) has been implemented in countries and territories. MDSR is a continuous cycle of identification, notification and review of maternal deaths followed by actions to prevent future death. Global survey of national MDSR system instigated in 2015 provides baseline data on status of implementation. The implementation status of countries and territories in WPRO (Cambodia, China, Fiji, Lao PDR, Malaysia, Mongolia and Papua New Guinea) can be found at: <a href="http://www.who.int/maternal\_child\_adolescent/epidemiology/maternal-death-surveillance/en/">http://www.who.int/maternal\_child\_adolescent/epidemiology/maternal-death-surveillance/en/</a>.

#### **Definition and comparability**

Maternal mortality is defined as the death of a woman while pregnant or during childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from unintentional or incidental causes (WHO, 2019<sub>[1]</sub>).

This includes direct deaths from obstetric complications of pregnancy, interventions, omissions, or incorrect treatment. It also includes indirect deaths due to previously existing diseases, or diseases that developed during pregnancy, where these were aggravated by the effects of pregnancy.

Maternal mortality is here measured using the maternal mortality ratio (MMR). It is the number of maternal deaths during a given period per 100 000 live births during the same period.

There are difficulties in identifying maternal deaths precisely. Many countries and territories in the region do not have accurate or complete vital registration systems, and so the MMR is derived from other sources including censuses, household surveys, sibling histories, verbal autopsies, and statistical studies. Because of this, estimates should be treated cautiously.

#### References

UNESCAP (2017), Inequality in Asia and the Pacific in the era of the 2030 agenda for sustainable development.	[3]
WHO (2019), <i>Trends in maternal mortality 2000 to 2017</i> , World Health Organization, <u>https://apps.who.int/iris/handle/10665/327595</u> .	[1]
WHO (2015). Success Factors for Women's and Children's Health: Cambodia. World Health Organization.	[2]

#### Note

<sup>1</sup> Evidence is based on at least four times, but latest WHO Recommendations are at least eight antenatal visits, comprising pregnancy monitoring, managing problems such as anaemia, counselling and advice on preventive care, diet, and delivery by or under the supervision of skilled health personnel.

https://apps.who.int/iris/handle/10665/254481.

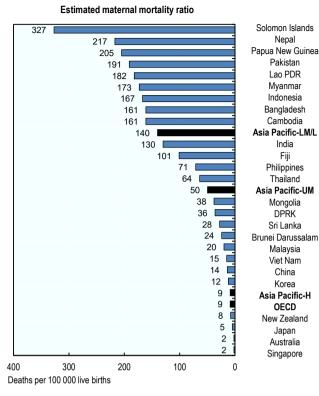
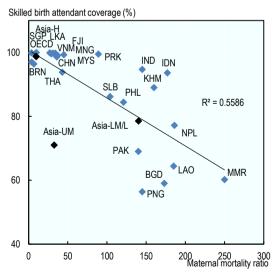


Figure 3.20. Estimated maternal mortality ratio, 2019 and percentage change since 2000

Note: OECD average is based on data from OECD Health Statistics 2022. Source: OECD Health Statistics 2022; Bill and Melinda Gates Foundation.

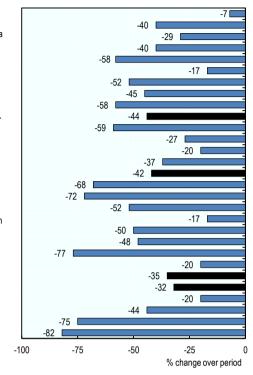
#### Figure 3.21. Skilled birth attendant coverage and maternal mortality ratio, latest year available



Source: OECD Health Statistics 2022; WHO (2021); WHO GHO 2021.

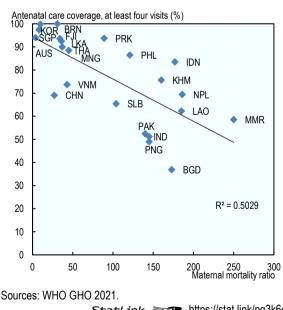
StatLink and https://stat.link/x3ukr0

#### Percentage change 2000-2019



StatLink ms https://stat.link/nskejc

# Figure 3.22. Antenatal care coverage and maternal mortality ratio, latest year available



StatLink and https://stat.link/pq3k6e

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