



Maternal Mortality and Morbidity Brief

Maternal Mortality

Number of 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.

Severe Maternal Morbidity (SMM) includes unexpected outcomes of labor and delivery that result in significant short- or long-term consequences to a woman's health.

More than 4,000 maternal deaths occurred in the United States in 2011-2015, according to data from the Centers for Disease Control and Prevention's WONDER online database, and maternal mortality has been rising. After accounting for reporting changes, one estimate suggested the maternal mortality rate increased 26.6 percent from 2000 to 2014.¹

- In OK, one woman dies every month due to pregnancy-related complications. Nationally, two women die every DAY due to pregnancy-related complications.
- In the last nine years, the maternal mortality rate in OK has increased by 50%.
- Black women are 3-4 times more likely to die from pregnancy-related complications as white women.
- The US is the worst country in the developed world to give birth.
- For every maternal death in OK there are 70 near misses.
- In the US 700 women die every year due to pregnancy-related complications.
- Eighty percent of maternal deaths could be prevented by cost-effective, timely health care before, during and after childbirth, including family planning, skilled attendance at birth, emergency medical services and care in the weeks after birth.

Source: March of Dimes, Peristats 2018

Who Does This Affect?

According to the World Health Organization, women die as a result of complications during and following pregnancy and childbirth. Most of these complications develop during pregnancy and most are preventable or treatable. Other complications may exist before pregnancy but are worsened during pregnancy, especially if not managed as part of the woman's care. The major complications that account for nearly all maternal deaths are ²

- severe bleeding (mostly bleeding after childbirth)
- infections (usually after childbirth)
- high blood pressure during pregnancy (pre-eclampsia and eclampsia)
- complications from delivery
- unsafe abortion

There are substantial and persistent disparities in maternal deaths by race and ethnicity. For African-American women, the rate of maternal mortality has been three to four times that of white women for over a century.⁴ American Indian/Alaska Native women are also disproportionately affected with a maternal mortality rate nearly twice that of white women in 2007-2009.

What Works?

Preconception Health. A healthy pregnancy begins before conception. Improving women's health across the lifespan and preventing chronic disease will result in healthier pregnancies with fewer complications.^{4,6} Treatment of cardiovascular disease prior to conception may help prevent maternal deaths caused by cardiovascular complications.³

Prenatal Care. Having prenatal care is associated with healthy pregnancy outcomes, especially receiving care during the first trimester.⁷ Management of chronic conditions during pregnancy is key to preventing complications throughout pregnancy and delivery.⁶

Medical Care Improvement. Improvements to hospital protocol and patient safety tools have been found to be effective strategies to reduce maternal mortality. In one study, severe maternal morbidity from hemorrhage was reduced by 20 percent through a collaborative quality improvement program.⁸ Systems to detect early warning signs can prevent delays in diagnosing and treating conditions that lead to maternal death.⁹

1 Marian F. MacDorman et al. "Recent Increases in the U.S. Maternal Mortality Rate: Disentangling Trends from Measurement Issues." *Obstetrics & Gynecology* 128, no. 3 (Sep 2016): 447-55.

2 Global Causes of Maternal Death: A WHO Systematic Analysis.

Say L, Chou D, Gemmill A, Tunçalp Ö, Moller AB, Daniels JD, et al. *Lancet Global Health*. 2014;2(6): e323-e333.

3 Afshan B. Hameed et al. "Pregnancy-Related Cardiovascular Deaths in California: Beyond Peripartum Cardiomyopathy." *American Journal of Obstetrics and Gynecology* 213, no. 3 (Sep 2015): 379 e1-10.

4 Michael C. Lu et al. "Putting the 'M' Back in the Maternal and Child Health Bureau: Reducing Maternal Mortality and Morbidity." *Maternal and Child Health Journal* 19, no. 7 (Jul 2015): 1435-9.

5 Cynthia J. Berg et al. "Preventability of Pregnancy-Related Deaths: Results of a State-Wide Review." *Obstetrics & Gynecology* 106, no. 6 (2005): 1228-34.

6 Zohra S. Lassi et al. "Preconception Care: Screening and Management of Chronic Disease and Promoting Psychological Health." *Reproductive Health* 11 Suppl 3 (Sep 26 2014): S5.

7 Sarah Partridge et al. "Inadequate Prenatal Care Utilization and Risks of Infant Mortality and Poor Birth Outcome: A Retrospective Analysis of 28,729,765 U.S. Deliveries over 8 Years." *American Journal of Perinatology* 29, no. 10 (Nov 2012): 787-93.

8 Elliott K. Main et al. "Reduction of Severe Maternal Morbidity from Hemorrhage Using a State Perinatal Quality Collaborative." *American Journal of Obstetrics and Gynecology* 216, no. 3 (Mar 2017): 298 e1-98 e11.

9 Jill M. Mhyre et al. "The Maternal Early Warning Criteria: A Proposal from the National Partnership for Maternal Safety." *Journal of Obstetric, Gynecologic & Neonatal Nursing* 43, no. 6 (Nov-Dec 2014): 771-9.