

At A Glance 2015

Safe Motherhood

Advancing the Health of Mothers in the 21st Century



The improvement in women's health care is one of the greatest public health achievements of the 20th century. Yet too many women still die or suffer serious health complications from pregnancy every year. Many studies show that an increasing number of pregnant women in the United States have chronic health conditions such as high blood pressure, diabetes, or heart disease that may put them at higher risk of these adverse outcomes. The Centers for Disease Control

and Prevention (CDC) is at the forefront of the nation's efforts to prevent and control chronic diseases so that all women can have a safe and healthy pregnancy.

Public Health Problem

Pregnancy-Related Mortality

Pregnancy-related mortality is defined as the death of a woman while pregnant or within 1 year of the end of pregnancy (no matter how long her pregnancy was) from any cause related to or aggravated by the pregnancy.

During the 20th century, the United States saw a dramatic decrease in pregnancy-related mortality because of improvements in the standard of living, contraception, and medical care during pregnancy and delivery. However, the risk of death during and shortly after pregnancy has not been decreasing in recent years. Since the Pregnancy Mortality Surveillance System was created in 1986, the number of pregnancy-related deaths reported in the United States steadily increased, from about 7 deaths per 100,000 live births in 1987 to nearly 17 deaths per 100,000 live births (about 700 deaths) in 2010.

About 1 of 4 deaths is related to heart disease, and women still die from bleeding, high blood pressure, blood clots, and infections (including influenza). Many of these deaths can be prevented through improvements in preconception care, access to health care and social services, quality of care received, and behaviors and health care practices of women.

Although the overall risk of dying from pregnancy complications is low, some women are at higher risk than others. A woman's race, ethnicity, country of birth, or age can be associated with a higher risk of death and pregnancy complications. These factors also may affect a woman's ability

Fast Facts

- ◆ In the United States, about 700 women die of pregnancy-related causes each year, and 65,000 have serious health complications.
- ◆ Many pregnancy-related deaths and complications are caused by chronic diseases and conditions, such as diabetes and obesity.
- ◆ Women who take steps to prevent and control these chronic conditions before and during pregnancy have the best chance for a healthy outcome.
- ◆ CDC supports states in tracking adverse pregnancy outcomes. Data from these efforts are used to guide pregnancy care.



to avoid an unintended pregnancy, get the right medical care, or practice healthy behaviors. For example,

- ◆ The risk of death for African American women is 3 to 4 times higher than for white women.
- ◆ The risk of death for women aged 35 to 39 is nearly 3 times higher than for women aged 20 to 24. The risk is even higher for women aged 40 or older.

Severe Maternal Morbidity

Maternal morbidity (such as anemia or morning sickness) refers to physical and psychological conditions that result from or are aggravated by pregnancy and have an adverse effect on a woman’s health.

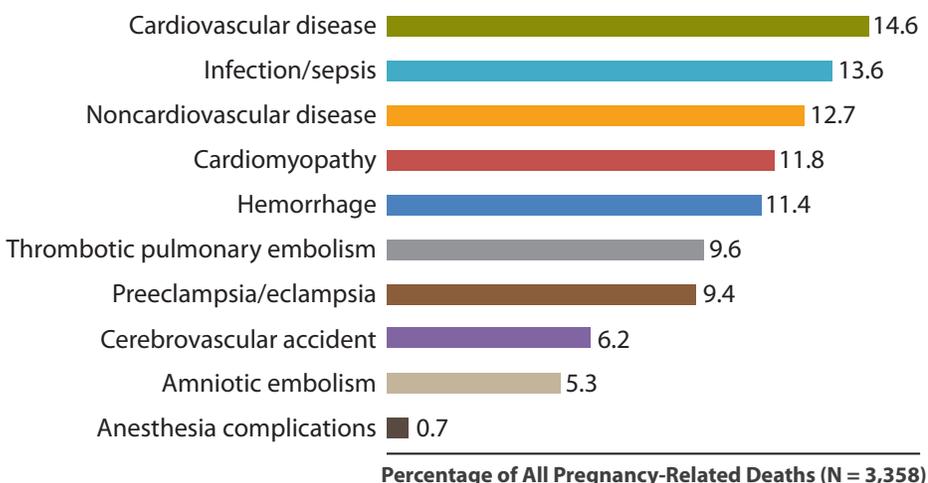
The most severe complications of pregnancy, such as a heart attack or hemorrhage, are also known as severe maternal morbidity (SMM). SMM refers to potentially life-threatening maternal conditions or complications, which affected about 65,000 women in the United States during 2010-2011.

The SMM rate more than doubled during the first 10 years of the 21st century, leading to higher direct medical costs, extended hospital stays, and long-term rehabilitation. This increase could be driven by a combination of factors—including increases in maternal age, pre-pregnancy obesity, preexisting chronic diseases, and cesarean delivery. Reviewing SMM cases is a way to focus quality improvement efforts where they will do the most good, and tracking SMM can help determine if these efforts are effective.

Planning for Pregnancy

A healthy pregnancy begins long before a woman thinks about motherhood. Preconception health and health care focus on things women can do before and between pregnancies to increase the chance of having a healthy infant and remaining a healthy mom. All women of reproductive age should try to adopt a healthy lifestyle and address any health issues before getting pregnant. The ideal results are a full-term pregnancy without unnecessary

Causes of Pregnancy-Related Death in the United States, 2006-2010



Notes: The cause of death is unknown for 4.7% of all pregnancy-related deaths. "Noncardiovascular disease" refers to endocrine, hematologic, immunologic, and renal conditions.

“At every contact in our health care system, we need to address reproductive health and well-woman care ... for every woman, every time.”

*Jeanne A. Conry, MD, PhD
Past President of the American Congress of Obstetricians and Gynecologists*



interventions, the delivery of a healthy infant, and a positive environment after delivery that supports the physical and emotional needs of the woman, infant, and family.

Women should visit their health care provider if they are thinking about getting pregnant to make sure they get the right medical advice. Once pregnant, they should keep up all of their healthy habits and see their provider regularly throughout pregnancy for prenatal care. Early prenatal care and regular monitoring are vital to prevent pregnancy-related complications and death. Pregnancy symptoms and complications can range from mild and annoying discomforts to severe, sometimes life-threatening illnesses, including physical and mental conditions affecting the health of the mother or infant. Women should contact their provider if they have any concerns during their pregnancy.

CDC's Response

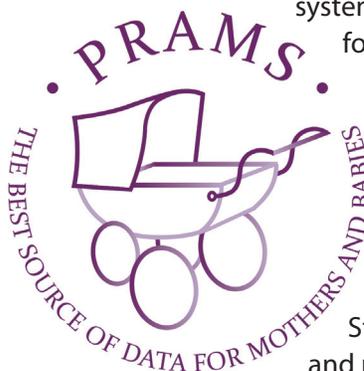
The National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) works in four key areas or domains: epidemiology and surveillance, environmental approaches, health care system interventions, and community programs linked to clinical services. This comprehensive approach supports healthy choices and behaviors, makes healthier options more available, and helps Americans better manage their health.

CDC works with partners—such as public health agencies, other federal agencies, academia, and community organizations—to improve the health of women before, during, and after pregnancy. With \$45 million in FY 2015 funding, CDC's Division of Reproductive Health supports these efforts by focusing its activities in two of NCCDPHP's four domains: epidemiology and surveillance and health care system interventions.

Epidemiology and Surveillance

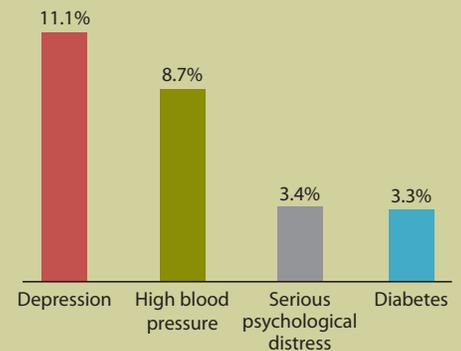
Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS collects state-specific population data on maternal attitudes, experiences, and health before, during, and shortly after delivery. This system helps to identify women and infants at risk for health problems, monitor access to care and services, identify changes in behavior and health status, and measure progress in improving the health of mothers and infants. Forty states and New York City participate in PRAMS, representing about 78% of all live births in the United States.



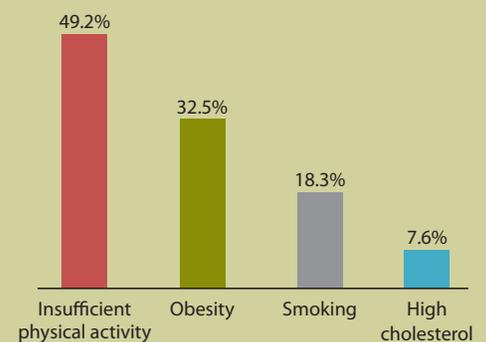
State governments use PRAMS data to plan and review programs and policies to reduce health problems among mothers and infants. For instance, states have used PRAMS data to promote breastfeeding, assess postpartum contraceptive use, and improve the quality of health care for women with gestational diabetes. PRAMS data have also been used to assess and promote seasonal influenza vaccination coverage in pregnant women, as well as develop, monitor, and

Prevalence of Chronic Diseases Among Women of Reproductive Age



Data sources: National Health and Nutrition Examination Survey, National Survey of Drug Use and Health, National Health Interview Survey. See the [online version of this At A Glance](#) for details.

Prevalence of Chronic Disease Risk Behaviors and Risk Factors Among Women of Reproductive Age



Data sources: National Health and Nutrition Examination Survey, National Health Interview Survey. See the [online version of this At A Glance](#) for details.

evaluate state tobacco control policies and programs to reduce smoking among female and pregnant smokers.



Pregnancy Mortality Surveillance System (PMSS)

The PMSS collects data on women who died while pregnant or within 1 year of the end of pregnancy from all 50 states, the District of Columbia, and New York City. These data are used to describe conditions that lead to death, identify risk factors for pregnancy-related deaths, and identify disparities in death rates. Clinicians and public health professionals can use PMSS data to better understand circumstances surrounding pregnancy-related deaths and take action to prevent them.

Maternal and Child Health Epidemiology Program

The key functions of this program are to

- ◆ Continuously increase states' epidemiologic infrastructure by assigning senior CDC maternal and child health (MCH) epidemiologists and fellows, training future MCH leaders, and increasing states' ability to apply scientific evidence at the agencies where the senior MCH epidemiologists are assigned.
- ◆ Partner with organizations that provide services or influence policy and practice guidelines, such as state and county health departments and tribal serving organizations.

In 2014, 13 senior MCH epidemiologists and 11 assignees from the Council of State and Territorial Epidemiologists were working in 14 public health agencies or institutions. These epidemiologists contribute to the programs and policies that have markedly improved the health and well-being of women, infants, children, and families—such as those that increase breastfeeding and decrease obesity.

Health Care System Interventions

Maternal Mortality Review (MMR) Committees

CDC provides technical assistance and expertise to help states establish MMR committees. State MMR committees improve the identification of pregnancy-related deaths, oversee the review of these deaths, recommend actions to help prevent future deaths, and disseminate the review results. CDC is working with its partners to update national and international recommendations for conducting reviews and for using review data to improve maternal health.

Beyond Our Borders

CDC reaches beyond US borders to help other countries (particularly in sub-Saharan Africa) prevent maternal mortality by providing technical assistance for research, surveillance, and program evaluation. This work focuses on better understanding the factors that bring about maternal deaths in order to identify actions to prevent those deaths.

Future Directions



An important component of safe motherhood is improving outcomes for women who have or will develop chronic diseases during their reproductive years. Improved surveillance is needed to monitor behaviors and health-related issues to guide prevention strategies. CDC is strengthening its efforts to

- ◆ Measure the prevalence of pregnancy-related mortality and complications and their costs in both human and financial terms.
- ◆ Understand the causes of pregnancy-related mortality and birth complications.
- ◆ Identify gaps in care and services.
- ◆ Develop and improve programs that promote preconception care, early prenatal care, and healthy pregnancies, especially for the populations that need them most.
- ◆ Partner with professional organizations to translate research findings into health care practice, public health policy, and health promotion strategies.

For more information, contact

Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention
and Health Promotion

[Division of Reproductive Health](#)

1-800-CDC-INFO (232-4636); TTY: 1-888-232-6348

[Contact CDC-Info](#)