For over 50 years, CDC’s Division of Reproductive Health (DRH) has developed programs to improve women’s health, improve pregnancy health and care, and give infants the healthiest start in life. Multiple surveillance systems and activities in DRH provide information and data that help scientists and health professionals understand how to deliver the best care. These efforts are the foundation of public health approaches that improve reproductive, maternal, fetal, and infant health.
What We Do

In the United States, leading health concerns for pregnant women and their infants are severe and sometimes fatal pregnancy complications, premature births, and sudden unexpected infant deaths. With an FY 2019 budget of $58 million, the Division of Reproductive Health (DRH) works to reduce these risks and improve the health of women across their life span. To meet these goals, DRH works to:

- Measure health behaviors and outcomes before, during, and after pregnancy.
- Study interventions to find out what works best to improve maternal and infant health.
- Fund state networks of experts working to improve the quality of care for mothers and infants.
- Share information to reduce risks during pregnancy and the infant's first year.

Why We Do It

Despite advances in reproductive, maternal, and infant health, much work remains to be done. Each year in the United States, 700 women die of pregnancy-related causes, and more than 50,000 have severe pregnancy complications (also known as severe maternal morbidity). Nearly 1 in 10 infants (about 380,000) are born prematurely, and the preterm birth rate has risen over the past 4 years. About 3,500 infants in the United States are lost to sudden unexpected infant death each year. And nearly half of pregnancies in the United States are unintended, which can increase the risk of negative health outcomes for both women and infants.

- 700 women die of pregnancy-related causes.
- 50,000 women have severe pregnancy complications.
- 1 in 10 infants (about 380,000) are born prematurely.
- 3,500 infants are lost to sudden unexpected infant death.
Understanding Maternal Mortality

About 700 women die each year in the United States from complications of pregnancy, and black women are almost 4 times as likely to die from these causes as white women. More and better data can help us understand how to prevent pregnancy-related deaths and ensure the best possible birth outcomes while providing insight into eliminating disparities and improving health equity.

CDC conducts national surveillance of maternal deaths in the United States through the Pregnancy Mortality Surveillance System (PMSS), but the data collected are limited. At the state and local level, Maternal Mortality Review Committees identify and review maternal deaths that occur within 1 year of delivery. CDC supports efforts to promote and improve these committees so they can pull together information from multiple sources to better understand what happened. These efforts can identify contributing factors and prevention opportunities and lead to recommendations that prevent future deaths.

CDC also worked with partners to launch Review to Action, a website housing a range of resources to support Maternal Mortality Review Committees.

Examples of Our Impact

- A report from nine Maternal Mortality Review Committees released in February 2018 found that about 60% of pregnancy-related deaths are preventable. The report also highlighted key opportunities for prevention.

- The online Maternal Mortality Review Information Application (MMRIA) helps committees standardize and organize data, creating quality and consistency in data collection methods across states. The MMRIA brings together data across jurisdictions and provides better data at the state level, which gives a better picture of what is happening throughout the country. More complete data will lead to improved care for mothers and infants.
How We Do It

Improving the Quality of Care for Mothers and Infants

CDC’s Perinatal Quality Collaboratives (PQCs) are state or multistate networks of health care teams working to improve the quality of care for mothers and infants. PQCs play an essential role in understanding what is happening in the health care setting and expanding successful interventions statewide. These efforts have contributed to important improvements in health care delivery and perinatal outcomes.

The number of states with a PQC has grown considerably since CDC support for PQCs began in 2011. CDC supports 13 state PQCs and funds the National Network of Perinatal Quality Collaboratives. This network provides support, mentoring, and resources for all PQCs to identify and share best practices and to develop supporting tools and training. Nearly every US state has a PQC or is developing one.

CDC has also hosted webinars to share strategies and information about specific initiatives. In addition, the agency helped create a resource guide to advance the work of state PQCs. This guide provides information on how to start a statewide collaborative and launch initiatives, as well as quality improvement methods and sustainability.

Examples of Our Impact

The Illinois PQC supported an initiative to reduce maternal complications from high blood pressure in women who had high blood pressure or who developed preeclampsia or eclampsia during pregnancy. The rate of severe complications among women with high blood pressure at delivery was cut in half through improved postpartum patient education and follow-up and more detailed communication about patients between doctors and nurses.

North Carolina’s PQC led a national initiative to reduce central line-associated bloodstream infections in neonatal intensive care units (NICUs). In 11 months, the rate of infections at 100 NICUs in 9 states dropped by almost 60%. The project prevented an estimated 131 infections, which helped prevent an estimated 14 to 41 deaths and save more than $2.2 million.
Collecting Quality Data on Women and Infants

The Pregnancy Risk Assessment Monitoring System (PRAMS) has been a critical source of data on maternal and infant health for more than 30 years. What started in 1988 as a small surveillance system operating in 6 sites has grown to a near-national surveillance system in 51 participating sites, including 47 states, the District of Columbia, New York City, Puerto Rico, and the Great Plains Tribal Chairmen's Health Board.

PRAMS collects state-based population data on maternal attitudes, experiences, and health before, during, and shortly after pregnancy. These data are used to guide public health action. They can also help inform media campaigns, identify needed policy changes, and provide insights into which efforts can best support new initiatives to improve maternal and infant health outcomes.

For example, PRAMS helped researchers collect data on Zika virus awareness and prevention. A special PRAMS Zika Postpartum Emergency Response Survey in Puerto Rico conducted a rapid assessment of Zika virus awareness and use of preventive measures among a representative sample of women who gave birth to live infants during the 2016 Zika outbreak.

Examples of Our Impact

- Rhode Island developed an issue brief on maternal depression using PRAMS data. The Rhode Island Department of Health used the data to make the case for helping health care providers screen and treat pregnant and postpartum women with behavioral health conditions and received funding to do this work.

- PRAMS data in Virginia showed that only 1 in 4 Medicaid recipients reported seeing a dentist during their pregnancy. In response, Virginia’s governor issued an executive order to fund dental coverage for all pregnant women covered by Medicaid. As a result, more than 14,000 pregnant women in Virginia received covered dental services they would not have otherwise.
How We Do It

Addressing Opioid Use Disorder Before, During, and After Pregnancy

Opioid use disorder (OUD) can cause many negative health outcomes for mothers and their infants, both during pregnancy and after delivery. Mothers with OUD are at risk of opioid-related overdoses, and infants can be born with breathing and feeding problems. From 1999 to 2014, the rates of OUD documented at delivery and infants born with neonatal abstinence syndrome (NAS) have increased more than four times. As part of its five-point strategy to prevent opioid overdoses and harms, CDC is working to prevent OUD among pregnant women and women of reproductive age and to make sure women with OUD get proper treatment.

CDC is addressing OUD during and after pregnancy by assessing maternal opioid use and working to help states and communities respond effectively. These efforts include:

- Collecting and sharing data on nonfatal opioid use during pregnancy in 32 states through PRAMS.
- Improving and standardizing data on overdose deaths during pregnancy.
- Supporting state teams to address opioid use among women during pregnancy and the postpartum period.

Examples of Our Impact

- CDC sponsored a Public Health Grand Rounds presentation titled Primary Prevention and Public Health Strategies to Prevent Neonatal Abstinence Syndrome that focused on how CDC is working with state and local partners to develop better policies for opioid prescribing among pregnant women to prevent NAS.
- CDC provided funds to implement the Opioid Use Disorder, Maternal Outcomes, and Neonatal Abstinence Syndrome Initiative, which supports state teams to address opioid use among women during pregnancy and the postpartum period. This Learning Community recommends policies and programs that focus on identifying and treating pregnant and postpartum women with substance use disorder and infants born with NAS.
How We Do It

Preventing Sudden Unexpected Infant Deaths

Sudden unexpected infant death (SUID) is a term used to describe the sudden and unexpected death of an infant less than 1 year old in which the cause was not obvious before investigation. These deaths often happen while the infant was sleeping in an unsafe sleep environment. Every year in the United States, about 3,500 infants die from this cause.

CDC supports surveillance at 22 grantee sites, covering 31% of all SUID cases in the United States. The SUID and Sudden Death in the Young (SDY) Case Registry standardizes and improves data collected at death scenes and promotes consistent reporting and classification of SUID and SDY cases. A better understanding of the circumstances and events associated with SUID and sleep-related infant deaths may help reduce future deaths.

CDC publishes materials to help parents and doctors learn how to reduce the risk of SUID. The agency also works with the Eunice Kennedy Shriver Foundation and the National Institutes of Health on the Safe to Sleep® campaign to promote safe sleep recommendations from the American Academy of Pediatrics.

Examples of Our Impact

As a result of the SUID and SDY Case Registry:

- In April 2015, the Office of Early Childhood in the Colorado Department of Human Services amended rules that regulate licensed child care centers and homes to add best practices for safe sleep environments for infants.
- The Michigan Department of Human Services adopted a policy that requires all child welfare workers to be trained in safe sleep practices. About 3,000 workers in 83 counties have been trained. Michigan also passed the Infant Safe Sleep Act, which requires that all birthing hospitals (about 85 in the state) provide safe sleep education to new parents.
CDC's National Center for Chronic Disease Prevention and Health Promotion prevents chronic disease and promotes health for people of all ages.

We Work to Improve Health Across the Life Span

Where People Live, Learn, Work, and Play

**Infants**
Reduce the leading causes of infant death and illness.

**Children and Adolescents**
Help support healthy communities, child care programs, and schools so children can eat well, stay active, and avoid risky behaviors.

**Adults**
Help adults lead healthy and active lives and increase the use of preventive services like cancer screenings.

**Older Adults**
Promote quality of life and independence for people as they age.

For more information, contact
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National Center for Chronic Disease Prevention and Health Promotion
Division of Reproductive Health
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