



Division of Congenital and Developmental Disorders

Efforts to Reduce Infant Mortality

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Highlights from the National Center on Birth Defects and Developmental Disabilities

Vision



Babies are born healthy. Children reach their full potential.
And everyone thrives.





**SAVING
BABIES**



**HELPING
CHILDREN**



**PROTECTING
PEOPLE**



**IMPROVING
HEALTH**

Thematic Areas

What is DCDD Doing to Address Infant Mortality?

- Preventing birth defects
- Reducing use of alcohol, other substances, and teratogenic medications during pregnancy
- Monitoring emerging threats and their impact on infants
- Monitoring and understanding risk factors for fetal death

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- **Preventing birth defects**
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SAVING BABIES

Through Birth Defects Prevention and Research

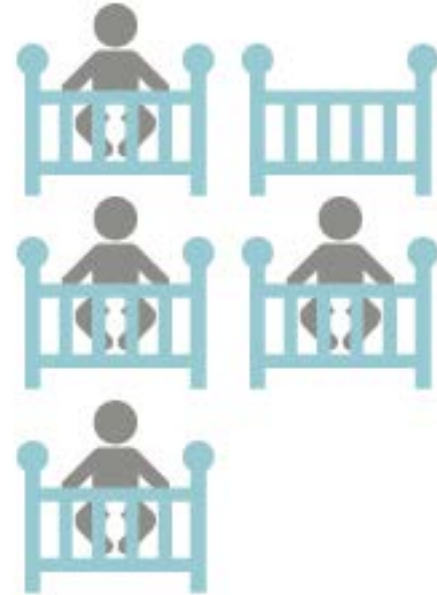


1 in 33

Babies are born
with a birth defect

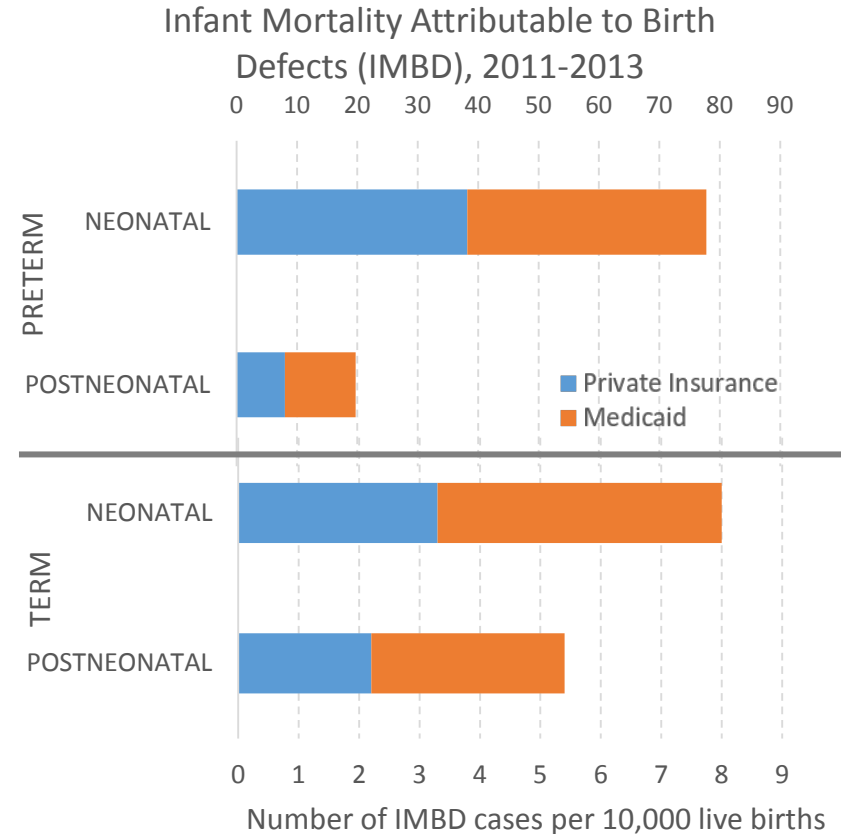
Impact of Birth Defects on Infant Mortality

Birth defects cause
1 **in every** **5**
deaths during the
first year of life.



Infant Mortality Attributable to Birth Defects, 2011–2013

- About 12 infant deaths due to birth defects per 10,000 babies born in the United States during 2011–2013
- Rates differ by race/ethnicity, gestational age, and age group at death
- Figure shows differences by payment source for delivery



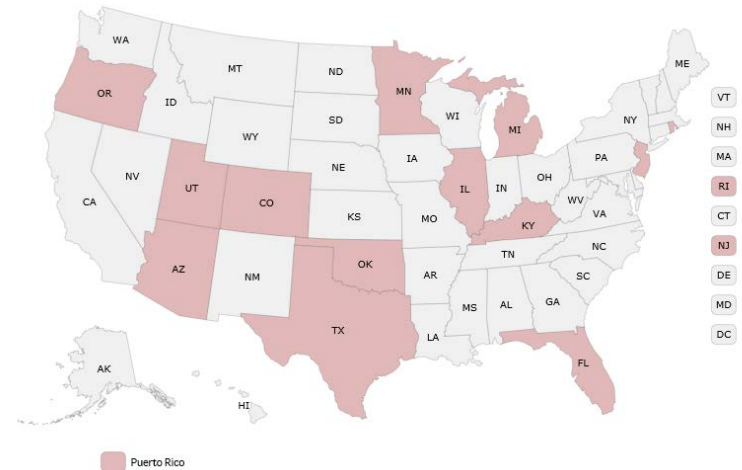
Preventing Birth Defects

Through surveillance and case-control studies, CDC works to identify causes of birth defects and find opportunities to prevent them.



State-based Birth Defects Tracking

- 43 states have birth defects tracking programs; among these, CDC funds 14 population-based state programs
- Information from birth defects tracking systems is used to
 - Understand if birth defects are increasing or decreasing over time
 - Plan and evaluate prevention activities
 - Refer babies and families affected by birth defects to services
 - Help allocate resources and services for affected babies and their families



Identifying Causes of Birth Defects

- CDC coordinates multisite case-control studies to identify causes and risk factors



Births from 1997-2011



Births from 2014 to present

- Findings from this research are used to
 - Inform clinical practice
 - Confirm previously observed associations
 - Generate hypotheses for future study
 - Identify areas for prevention
 - Provide information to the public

Preventing Birth Defects: Spina Bifida

- **Survival of infants born with spina bifida improved between 1979 and 2003**
- **Improvements in survival varied by race/ethnicity**
 - **Black and Hispanic infants had poorer survival compared with white infants**
- **CDC activities**
 - **Continued promotion of folic acid use among all women who can get pregnant to prevent spina bifida**
 - **Public health research to decrease mortality and improve the health of those with spina bifida**



Preventing Birth Defects: Congenital Heart Defects

- **Survival of infants born with critical congenital heart defects improved between 1979 and 2005**
- **Newborn screening for critical congenital heart defects can identify affected infants before leaving the hospital**
 - **Nationwide implementation**
- **CDC activities**
 - **Public health research to improve health and reduce mortality of individuals living with congenital heart defects**



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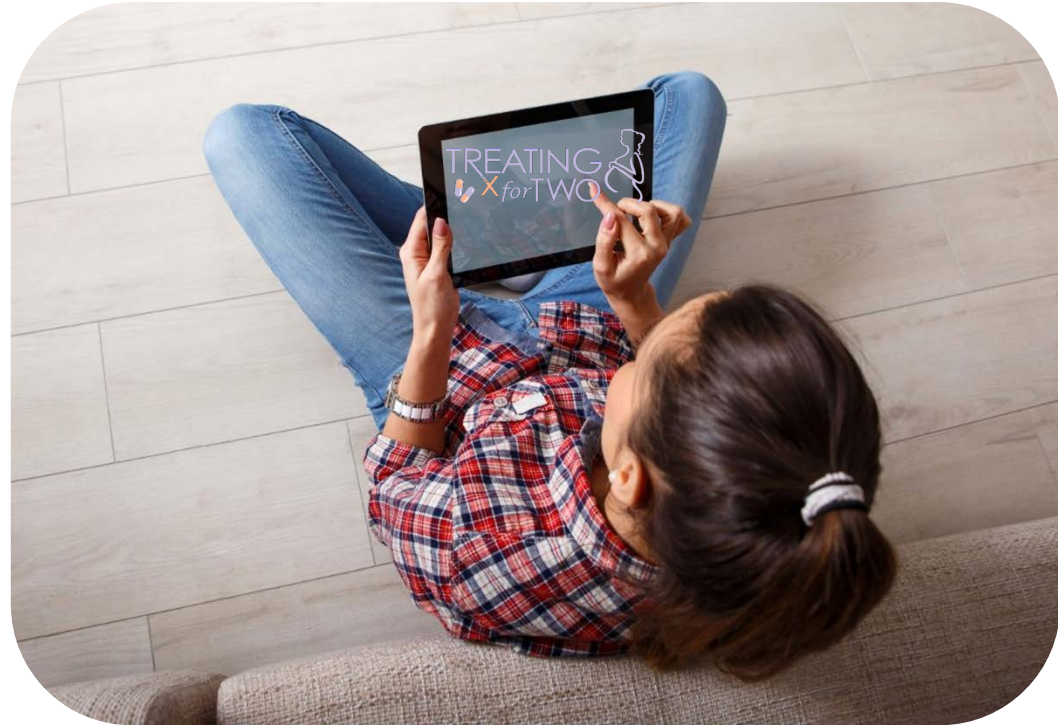
Reducing Alcohol Use during Pregnancy

- **Promoting Alcohol Screening & Brief Intervention (SBI)**
 - Alcohol SBI is recommended for all adults, including pregnant women
 - CDC promotes the implementation of alcohol SBI
 - In health systems providing women's health services to reduce risky alcohol use among women of reproductive age
 - By collaborating with SAMHSA and NCQA on a quality improvement learning collaborative to promote HEDIS measure, *Unhealthy Alcohol Use Screening and Follow-Up*
 - By targeting five healthcare disciplines to engage providers in alcohol SBI and message delivery to patients



Reducing Use of Teratogenic Medications during Pregnancy

- **Mobile App Development for Safer Medication Use in Pregnancy:
SBIR Phase I and II grants**
- www.cdc.gov/treatingfortwo



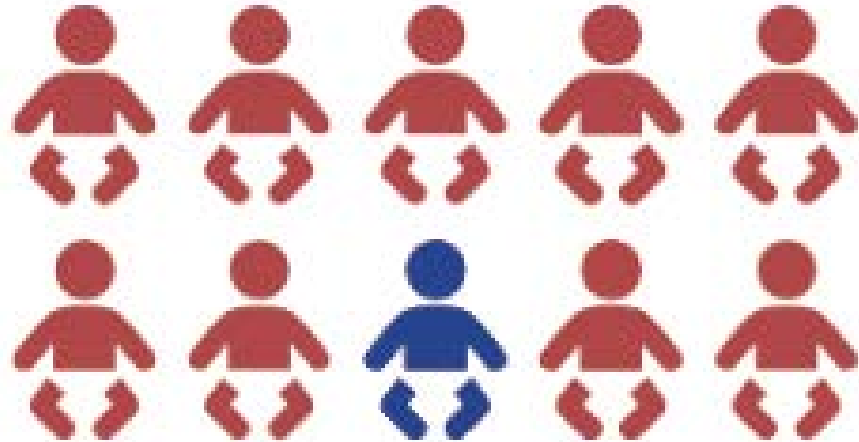
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Impact of Zika Virus on Infant Mortality

- Preliminary data from Brazil:

- **About 10%** of infants impacted by congenital Zika infection may die during infancy



Longitudinal Surveillance of Pregnant Women and Infants

■ CDC activities

- CDC-wide working group on longitudinal surveillance of pregnant women-infant dyads
- Public Health Grand Rounds held September 18, 2018
 - Highlighted opportunities for public health surveillance to address health threats that can impact infant mortality



Maternal Immunization Workgroup

- **CDC cross-center workgroup to collaborate on promoting maternal immunization for infant benefits**
 - **ACIP recommends**
 - **Influenza vaccine before or anytime during pregnancy**
 - **Tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine during each pregnancy, preferably from 27 through 36 weeks' gestation**
 - **Yet coverage among pregnant women is suboptimal**
- **Maternal immunization will also be considered for other current and emerging vaccines, including for Ebola and Zika viruses**

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Monitoring and Understanding Risk Factors for Fetal Death

- Annual number of fetal deaths in the US approximately equal to annual number of infant deaths
- CDC activities
 - Monitor fetal deaths in the US
 - Use data to better understand the causes and opportunities for intervention to prevent fetal deaths



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

