

# National Center on Birth Defects and Developmental Disabilities Annual Report Fiscal Year 2015

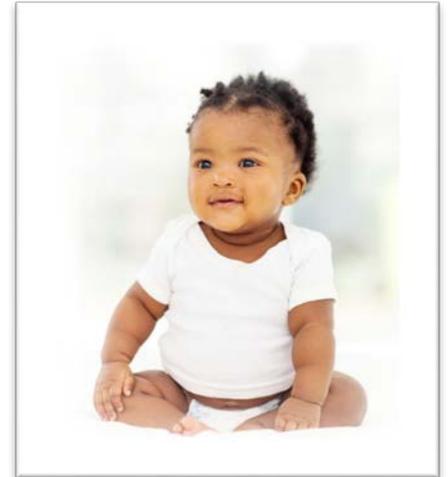
---



## SAVING BABIES THROUGH BIRTH DEFECTS PREVENTION AND RESEARCH

**CDC's National Center on Birth Defects and Developmental Disabilities (NCBDDD) made notable progress in our ongoing state-based birth defects tracking system and public health research, which continue to form the scientific foundation for preventing birth defects and helping people thrive throughout their lives.**

Every 4 ½ minutes, a baby is born with a major birth defect in the United States. That's 1 in 33 babies. Birth defects are structural changes in one or more parts of the body that are present at birth. NCBDDD identifies causes of birth defects, finds opportunities to prevent them, and improves the health of those living with birth defects. By applying a public health approach incorporating three essential elements—surveillance or disease tracking, research to identify causes, and prevention research and programs—we can rapidly translate scientific findings into appropriate public health interventions.



### Accomplishments

- Launched the Birth Defects Study to Evaluate Pregnancy exposureS (BD-STEPS) and began conducting interviews with families of babies born in 2014. Results from BD-STEPS will provide more knowledge about the factors that might raise or lower the risk of having a baby with a birth defect.
- Advanced global neural tube defects prevention efforts through Birth Defects COUNT. Collaborated with the World Health Organization's South-East Asia regional office to provide birth defects surveillance trainings, and to implement or improve surveillance programs in nine countries. Conducted multiple birth defects surveillance trainings in East Africa to increase capacity. Received CDC's prestigious Shepard Award for a publication that used red blood cell folate concentrations to predict population risk of neural tube defects.
- Expanded research and delivered reliable information about safer medication use in pregnancy through Treating for Two. Presented new information on the use of opioid medications among U.S. women and updated research on the relationship between certain antidepressant medications and birth defects.
- Initiated work with Fetal Alcohol Spectrum Disorders (FASD) Practice and Implementation Centers and National Partners to plan new strategies to achieve changes in clinical practice and systems-level change for the prevention, identification and treatment of FASDs. Released updated data on alcohol use and binge drinking among U.S. women of childbearing age.
- Advanced efforts to learn more about long-term outcomes and health care needs for adolescents and adults born with heart defects. Presented new findings on the importance of developmental screening among children with heart defects. This research will lead to a better understanding of health outcomes and needs of those living with heart defects, and can help inform resource planning for this growing population.

## Looking to the Future

Our ongoing state-based birth defects tracking system and public health research continue to form the scientific foundation for preventing birth defects and helping people thrive throughout their lives. This foundation will be further strengthened through enhanced tracking to better understand the causes of birth defects and the lifelong implications on cost and quality of life. Similarly, our prevention programs seek to translate this knowledge into actionable health promotion programs that change people's lives. Our public health programs continue to show promise and potential to help millions of Americans live healthier lives.

## Notable Scientific Publications

Ailes EC, et al. Opioid prescription claims among women of reproductive age — United States, 2008–2012. *MMWR Morb Mortal Wkly Rep* 2015;64(2):37-41.

Ailes EC, et al. Estimated number of infants detected and missed by critical congenital heart defect screening. *Pediatrics* 2015;135:1000-8.

Crider KS, et al. Population red blood cell folate concentrations for prevention of neural tube defects: Bayesian model. *BMJ* 2014 Jul;349:g4554.

Fox DJ, et al. Fetal alcohol syndrome among children aged 7-9 years – Arizona, Colorado, and New York, 2010. *MMWR Morb Mortal Wkly Rep* 2015;64:54-7.

Glidewell J, et al. State legislation, regulations, and hospital guidelines for newborn screening for critical congenital heart defects—United States, 2011-2014. *MMWR Morb Mortal Wkly Rep* 2015;64:625-30.

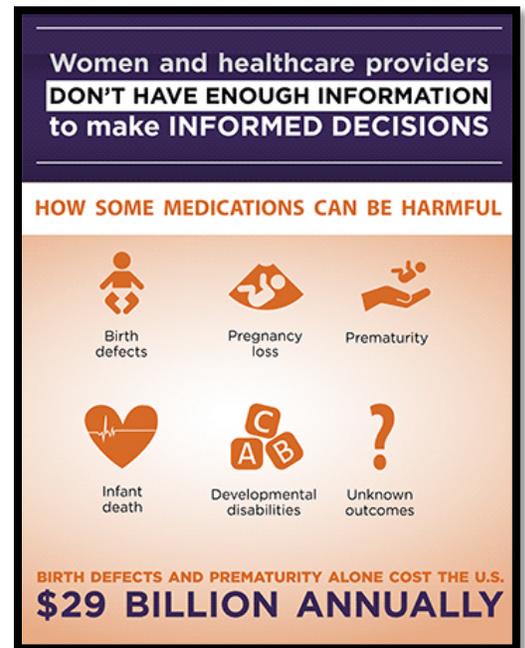
Reefhuis J, et al. Specific SSRIs and birth defects: Bayesian analysis to interpret new data in the context of previous reports. *BMJ* 2015 Jul;351:h3190.

Riehle-Colarusso T, et al. Congenital heart defects and receipt of special education services. *Pediatrics* 2015;136:496-504.

Tan CH, et al. Alcohol use and binge drinking among women of childbearing age – United States, 2011–2013. *MMWR Morb Mortal Wkly Rep* 2015;65:1042-6.

Wang Y, et al. Racial/ethnic differences in survival of United States children with birth defects: a population-based study. *J Pediatr* 2015;166:819-26.

Williams J, et al. Updated estimates of neural tube defects prevented by mandatory folic acid fortification — United States, 1995–2011. *MMWR Morb Mortal Wkly Rep*. 2015;64:1-5.



## Spotlight on: March of Dimes

This Spotlight was contributed by James Gelfand, Director for Federal Affairs at March of Dimes.

The March of Dimes was founded to fight the rising epidemic of polio, which was causing fear, paralysis, and death to far too many Americans, particularly children. The foundation established a polio patient aid program and funded research, including the first safe and effective vaccines developed by Jonas Salk, MD and Albert Sabin, MD. These vaccines effectively ended polio in the United States. In fact, polio is now almost completely eliminated globally, with small pockets remaining in Afghanistan and Pakistan.

The foundation next turned its focus to preventing birth defects and reducing infant mortality. March of Dimes led the way to discovering the genetic causes of many birth defects, promoting expanded newborn screening, and educating medical professionals and the public about best practices for healthy pregnancy. This includes supporting research for surfactant therapy to treat respiratory distress in babies born with underdeveloped lungs, and helping initiate the system of regional neonatal intensive care units for premature and sick babies. The March of Dimes Folic Acid Campaign, which included advocating for folic acid fortification of grain foods in the United States has helped achieve a dramatic reduction in the incidence of neural tube defects – serious birth defects of the brain and spine – and continues today with efforts to fortify corn masa to prevent these birth defects in Hispanic communities.

Since 2003, the March of Dimes fight to save babies has been most visible through its Prematurity Campaign. The rising incidence of premature birth since the 1980s demanded action, and the March of Dimes responded by initiating an intensive, multi-year campaign to raise awareness and reduce the rate of preterm birth. This includes the establishment of a nation-wide network of Prematurity Research Centers, where groundbreaking transdisciplinary research is conducted to find the unknown causes of premature birth and new ways to prevent it. Due in no small part to the Campaign's success in helping reduce early elective deliveries and disseminate other best practices and policies, the United States in 2013 hit the Healthy People 2020 preterm birth rate goal of 11.4 percent. But there is still much work to be done. Not all families or all communities in our country are sharing in this success. The March of Dimes is now focused on achieving a much lower U.S. preterm rate of 5.5 percent by 2030.

Meanwhile, the March of Dimes continues to champion newborn screening, healthy pregnancy, and safe medications for pregnant women and babies. And through this work March of Dimes ensures a fighting chance for every baby.

**To view the annual report online, please visit:**  
[www.cdc.gov/ncbddd/aboutus/annualreport2015](http://www.cdc.gov/ncbddd/aboutus/annualreport2015)

**For more information, please visit:**  
[www.cdc.gov/ncbddd](http://www.cdc.gov/ncbddd) or [www.friendsofncbddd.org](http://www.friendsofncbddd.org)

