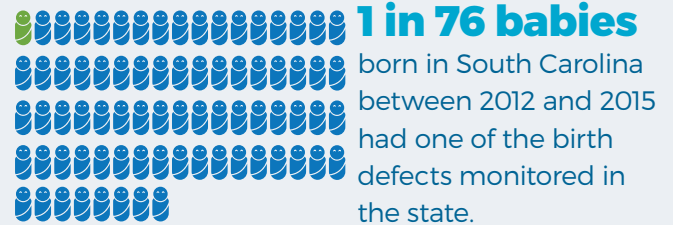




Background

- **Birth defects are a leading cause of infant mortality.** Babies born with birth defects have a greater chance of illness and long-term disability compared to babies without birth defects.
- Birth defects can be caused by either genetic factors (such as chromosomal anomalies), environmental factors (such as tobacco exposure during pregnancy), or a combination of genetic and environmental factors.
- The South Carolina Birth Defects Program (SCBDP) began in July 2006, pursuant to the [S.C. Birth Defects Act](#). This law mandates active surveillance of major structural birth defects identified before birth or during the first two years of life.
- **South Carolina monitors over 50 birth defects recommended by the Centers for Disease Control and Prevention (CDC) and the National Birth Defects Prevention Network.** Hospitals in the state alert the SCBDP of all instances in which these codes are billed for pregnant women or during a child's first two years of life. If a case meets initial inclusion criteria, the team reviews the medical record to determine whether it is a true case. If so, information is collected about the mother and baby to understand the possible causes of the birth defect.
- During the 2016 calendar year, the SCBDP gathered information on **2,912 total possible cases**, of which **1,630 were cases of birth defects** monitored by the program.
- The SCBDP is funded through South Carolina state funding, as well as through the federal Title V Maternal and Child Health Block Grant Program. In August 2016, the program received additional funding from CDC to gather information on microcephaly and other birth defects potentially associated with Zika virus infection.
- Program partners include the Greenwood Genetics Center, Help Me Grow, BabyNet, and PASOs.

Quick Facts



On average, **1 in 6 infant deaths** in South Carolina is the result of a birth defect.

The South Carolina Birth Defects Program is now monitoring the possible effects of the **Zika virus** on birth outcomes.



The SCBDP uses South Carolina birth defects data to: determine rates and trends of birth defects; better understand the causes, distribution, and prevention of birth defects; and develop public health strategies for prevention of birth defects.

Some Strategies for the Prevention and Treatment of Birth Defects:

- Health care providers should screen and treat all women and men of reproductive age for substance use, including alcohol and tobacco;
- Women of reproductive age should talk to their doctor and pharmacist about the medications they are taking to make sure they are safe during pregnancy; and
- All women who could become pregnant should take 400 micrograms of folic acid daily.

In 2015, the most commonly occurring birth defects in South Carolina were:²

1. Ventricular septal defect (a type of heart condition) - 213 cases;
2. Down Syndrome (a type of chromosomal anomaly) - 65 cases;
3. Atrial septal defect (a type of heart anomaly) - 45 cases; and
4. Congenital reduction deformities of brain (a type of central nervous system condition) - 42 cases.

| 2012–2015 South Carolina Birth Defects Program Data ² | | |
|------------------------------------------------------------------|--------|-----------------------------|
| Number of Cases by Organ System | Number | Rate per 10,000 live births |
| Cardiovascular | 1,898 | 83 |
| Central Nervous System | 414 | 18 |
| Musculoskeletal | 398 | 17 |
| Chromosomal | 372 | 16 |
| Orofacial | 332 | 14 |

From a parent of a child with microcephaly and chromosome deletion:

“Having a child with a birth defect has been challenging, but also rewarding. I feel that I am more attuned to the needs of both my children and have learned to slow down and take life one day at a time. Her diagnosis is just a small portion of who she is, and her big personality and love for life helps us get through more difficult days.”

—Family Connection of South Carolina Parent

Questions? Comments?

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The Zika Virus and Birth Defects: What We Know

- The Zika virus is spread by the bites of infected mosquitos, and through sexual contact and blood transfusions. As of May 2017, mosquitos in South Carolina did not carry the Zika virus.
- The Zika virus can be passed from a pregnant woman to her fetus.
- The Zika virus can cause serious birth defects, including:
 - microcephaly;
 - decreased brain tissue and brain damage;
 - damage to the back of the eye;
 - joint problems; and/or
 - muscle tone problems.
- Microcephaly has many causes other than the Zika virus, such as cytomegalovirus, malnutrition, and exposure to alcohol.
- In 2016, the CDC asked SCBDP to begin collecting information on additional birth defects that are potentially linked to the Zika virus.

Newborn Screening for Critical Congenital Heart Defects (CCHD)

- CCHD is life threatening and requires early detection and intervention.
- 18 out of every 10,000 babies born in the United States have CCHD.¹
- In 2013, South Carolina passed the Emerson Rose Act, mandating that hospitals use pulse oximetry screening (a non-invasive, low cost test) for early detection of CCHD.
- Between 2013 and 2015, seven CCHD and 31 other congenital heart defects that might otherwise have been missed were found through pulse oximetry.

¹ Newborn Screening for CCHD. Elk Grove Village (IL): American Academy of Pediatrics. <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/PEHDIC/Pages/Newborn-screening-for-CCHD.aspx>. Accessed May 16, 2017.

²DHEC SCBDP data; 2015 data are provisional.