Through synergistic collaborations, the Arkansas Center for Birth Defects Research and Prevention combines surveillance, research and prevention to make a difference in the lives of children and their families. The Arkansas Center participates in the National Birth Defect Prevention Study, conducts local research studies and collaborates with researchers and public health experts across the country to develop public health programs to help prevent birth defects.

The Center’s work touches the lives of many and offers hope for a brighter future. The Arkansas Center staff are:

- Identifying how a woman’s intake of micronutrients and the way in which her body uses folic acid may affect the risk for heart defects
- Investigating how babies’ and parents’ genetic factors may modify risks of birth defects
- Searching for the causes of Trisomy 21 or Down Syndrome
- Studying cost and quality-of-life outcomes of birth defects to inform decisions about the economic value of birth defects prevention
- Exploring options for medical treatment of children with birth defects to provide the best care possible
- Leading the Arkansas Folic Acid Coalition to empower Arkansas women of childbearing age to take daily folic acid to optimize their chance of having healthy babies

**KEY ACCOMPLISHMENTS**

- Major contributor in the National Birth Defects Prevention Study, the largest population-based study conducted on the causes of birth defects
- Established a DNA Bank for Congenital Malformations for “cutting-edge” research in human genomics
- Established a state-of-the-art Birth Defects Genomics Laboratory to perform genetic studies
- Identified genetic and metabolic factors related to tobacco use that may increase the risk of heart defects
- Determined that exposure to oxidative stress may impair the normal development of babies
- Played a leading role in statewide neural tube defect prevention efforts

**EXPERTISE**

- Clinicians experienced in pediatrics, neonatology, pediatric cardiology and clinical genetics
- Experts in human genetics, biostatistics, biochemistry, nutrition, developmental biology, bioinformatics/computational biology, health economics, health services research, and genetic and molecular epidemiology

**BENEFITS TO ARKANSANS**

- Provides a means to monitor the occurrence of birth defects and to evaluate prevention activities that can impact Arkansas families
- Offers hope that one day birth defects can be prevented and fewer families will know the heartache that comes with learning that a baby has a serious birth defect

**GROWTH & CAPACITY BUILDING**

- Translation of scientific research findings into clinical and public health intervention and prevention programs
- Funding to further investigate the causes of congenital heart defects and other birth defects among the Center’s study populations
- The Birth Defects Genomics Laboratory and its faculty and staff comprise an invaluable asset, reinforcing the competitive position of the Center for continued acquisition of long-term funding