Monday, February 23, 9:00AM-11:00AM Plenary Session

National Birth Defects Prevention Study: Exploring the Risk Factors

Moderator: Margaret (Peggy) Honein, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, Atlanta, GA

Jennita Reefhuis, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, Atlanta, GA

Andrew Olshan, University of North Carolina, School of Public Health, Chapel Hill, NC

Marlene Anderka, Massachusetts Department of Public Health, Boston, MA

Mary Jenkins, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, Atlanta, GA

The National birth Defects Prevention Study (NBDPS) is the largest population-based case control study even conducted in the U.S. on the causes of birth defects. The study was established to help identify genetic and environmental risk factors for major birth defects, and work quickly to translate these findings into prevention and intervention efforts. The study entails three steps; the first is ascertainment of birth defects via population based surveillance systems. Second an extensive maternal interview with detailed questions on exposures and timing of exposures ranging from medications and family history to occupation. Lastly the family is asked to provide buccal swabs that enable us to extract DNA and conduct genetic research. The NBDPS has been collecting data for more than 10 years and has interviewed over 30,000 mothers. We will provide an overview of recent accomplishments, key priorities for 2009, and key findings from a number or recent analyses.

- Jennita Reefhuis will first give you a brief overview of the study including some of the accomplishments in the past years which include publications on genitourinary infections and gastroschisis, ART and birth defects and diabetes and birth defects.
- Andy Olshan will show you an overview of our work on occupational exposures. Through a collaboration with the National Institute for Occupational Safety and Health, industrial hygienists assessed the exposure to various chemicals for the jobs the mothers reported. Epidemiologic studies linking these exposures to birth defects have just started.
- Marlene Anderka will highlight work on maternal medication use during pregnancy. This study provides a unique opportunity to study the risk and safety of medications during pregnancy.
- Mary Jenkins will share the progress we have made on the laboratory analyses of the genetic samples we have collected and some early results of epidemiological analyses of these samples.