Opportunities for Birth Defects Research and Prevention: National Birth Defects Prevention Study (NBDPS) and Beyond

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The National Birth Defects Prevention Study (NBDPS) is the largest population-based case control study ever conducted in the U.S. to examine birth defects etiology. Currently, centers in Arkansas, California, Georgia, Iowa, Massachusetts, New York, North Carolina, Texas and Utah are collaborating on this study. The NBDPS was established to identify environmental and genetic risk factors for major birth defects, and to translate these findings into prevention and intervention efforts. The study consists of 3 main components. First, birth defects cases are ascertained via population-based surveillance systems and clinically reviewed for eligibility. Second, an extensive maternal interview in English or Spanish is conducted with detailed questions on exposures and timing of exposures ranging from medications and nutritional intake to occupation. The interviews are completed between 6 weeks and 2 years after the estimated date of delivery. Lastly the family is asked to provide buccal swabs for genetic and gene-environment research. The NBDPS has been collecting data for more than 12 years, interviewed over 37,000 women, and collected buccal swabs from more than 21,000 families.

The plenary session will focus on NBDPS recent accomplishments and key priorities for 2011. Additionally, it will include NBDPS research areas that can be explored at the state level and how the study findings may be translated into prevention and intervention activities.

- Dr. Jennita Reefhuis will first provide a brief overview of the study, including major accomplishments in the past years and current priorities for both environmental and genetic analyses.
- Dr. Marlene Anderka will highlight analyses that are being conducted using NBDPS data on variables that also may be collected as part of a state surveillance system, such as twinning and interpregnancy interval.
- Mrs. Julie Mayberry will share her experiences as a mother of a girl with spina bifida and provide her perspective on birth defects research, education and service provision.
- Dr. Robert Meyer will discuss findings from NBDPS in the context of what is known in the literature and discuss whether the identified exposures may be ready for translational work.
- Lastly, Ms. Katherine Wilson, from CDC’s Division of Cancer Prevention and Control, will discuss CDC’s work in translating knowledge to action, practical advices, and examples from chronic diseases.