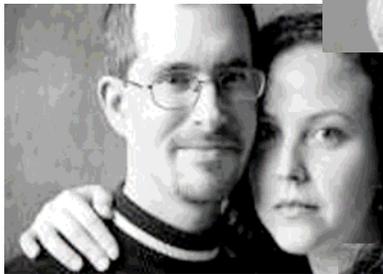




# Division of Genomics, Perinatal Health and Chronic Disease Epidemiology



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of Community Health



Jennifer M. Granholm, Governor  
Janet Olszewski, Director

**“Share and Learn” – Life course perspective**

**October 25, 2007**



# Mission

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To provide statewide leadership and expertise essential for integrating genomics and epidemiologic science into maternal, child health, chronic disease and other related public health programs.

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# Objectives

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- Assure screening and follow-up of individuals with heritable disorders
- Monitor population health through surveillance and case review systems
- Analyze risk factors to assess disparities in morbidity and mortality
- Evaluate the impact of health programs, interventions, and services
- Promote translation of research and evidence-based prevention strategies into public health policy and practice

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# Functions

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- Provide statewide leadership to coordinate the integration of genomics that encompasses newborn screening and births defects prevention and follow up into public health functions and other programs
- Provide statewide epidemiological leadership and expertise to maternal and child health and chronic disease programs to thus assure the translation of research and evidence-based prevention strategies into public health policy and practice

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# New Projects

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- The National Children's Study (NIH funded)
- Gestational Diabetes (CDC funded)

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# The National Children's Study (NCS)

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- A research venture that may revolutionize our understanding of which factors in the environment are responsible for childhood disorders such as premature birth, asthma and autism, and/or contribute to precursors of adult disease such as childhood obesity and hypertension.
- NCS will examine the effects of environmental influences on the health and development of more than 100,000 children across the United States, following them from before birth until age 21
- Study Goal: To improve the health and well being of children

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# The study defines “environment” broadly



Issues to be considered include:

- Natural and man-made environment factors
- Biological and chemical factors
- Physical surroundings
- Social factors
- Behavioral influences and outcomes
- Genetics
- Cultural and family influences and differences
- Geographic locations

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# The NCS' anticipated measures:

## Exposures:

- Environmental Samples: air, water, dust, soil
- Exposure biomarkers and genetic factors in blood, breast milk, hair, tissue, urine, etc.
- Interview and history, including occupation, diet/nutrition, medicines, etc.
- Housing & living characteristics
- Family and social experiences
- Neighborhood and community characteristics

## Outcomes:

- Fetal growth and outcomes of pregnancy
- Birth defects and newborn exam
- Growth and physical development
- Medical conditions and history
- Cognitive and emotional development
- Mental, behavioral, and other developmental conditions

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# The National Children's Study = one of the richest information resources available to:

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- answer questions related to children's health and development and
- form the basis of child health guidance, interventions, and policy for generations to come

## By when?

- It is anticipated that the preliminary results from the first years of the study will be available in 2008-2009

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# What makes this Study different from other U.S. health studies?



- Is national in scope
- Takes a broad approach to “environment”
- Is long-term in design – longitudinal study
- Makes the results public as the Study progresses
- Involves partners from multiple government agencies, as well as from public organizations and private companies
- Uses state-of-the-art technology
- Examines many questions

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# Study Sponsors

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- The **Children's Health Act of 2000** authorized the National Institute of Child Health and Human Development (**NICHD**) and a consortium of federal agencies to conduct the National Children's Study
- The National Institute of Environmental Health Sciences (**NIEHS**), the Centers for Disease Control and Prevention (**CDC**), and the U.S. Environmental Protection Agency (**EPA**) join the NICHD in planning and conducting this study
- These four agencies, **NICHD, NIEHS, CDC, and EPA**, are dedicated to working together to improve the health of our nation's children through the successful completion of the National Children's Study

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# Funds/Costs

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- The largest single study ever undertaken by NIH, with total costs expected to come close to \$3 billion dollars
- A congressional allocation of about \$10 million annually to NICHD since 2000 has supported hundreds of scientists and health professionals in planning efforts

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# The NCS projected timeline:

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- 2004: Circulate draft protocol to federal experts
- 2004-2006: Ongoing public comment and revisions
- 2004-2005: Release initial RFP
- 2005-2006: Selection of vanguard study sites
- 2006: Initial phase with vanguard sites
- 2007+: Additional sites added

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# Michigan's efforts

- Since 2002, a coalition of Michigan's researchers formed Michigan Alliance for National's Children Study (MANCS)
- MANCS steering committee and executive committee with members from five institutions:
  1. Michigan State University
  2. Wayne State University
  3. University of Michigan
  4. Henry Ford Health System
  5. MDCH

Both committees have been in close contact for the past years, with telephone conference calls, email correspondence and face-to-face meetings

- Recently, \$18.5 million awarded to Michigan to add Wayne county to NCS site.

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# Roles

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- UofM will be responsible for enrolling and interviewing study participants and assessing post-natal child development.
- WSU will oversee the assessment and care of pregnant women.
- Children's Hospital of Michigan will serve as the repository for biological samples.
- Henry Ford Health System will serve as the repository for environmental samples and will perform medical examinations of children.
- MSU will coordinate the overall work of the study, and house the project at its East Lansing campus. MSU Extension will help develop community support for the study.
- MDCH will provide information related to live birth characteristics and locations in Wayne County.

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# Gestational Diabetes

- The National Association of Chronic Disease Directors (NACDD) Women's Health Council and CDC's Division of Reproductive Health (DRH) have been working on a project to increase awareness and collaboration among PRAMS (Pregnancy Risk Assessment Monitoring System,) maternal child health (MCH), chronic disease, and health promotion programs.
- Surveys conducted early in 2006 with state chronic disease, health promotion, and PRAMS program directors indicate that less than 8% (7.5%) of chronic disease programs use PRAMS data for Diabetes Prevention and Control Program (DPCP) activities
- Women's Health Council collaboration with CDC/Division of Reproductive Health and Division of Diabetes Translation collaborative effort to identify, validate and catalogue routinely collected data about women of childbearing age at risk for or having diabetes, especially gestational diabetes. **Michigan is one of the six participating states.**

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# October 1: Child Health Day Bright Future



- Bright Futures, initiated by the Maternal and Child Health Bureau (MCHB) over a decade ago, is a philosophy and approach that is dedicated to the principle that every child deserves to be healthy, and that optimal health involves a trusting relationship between the health professional, the child, the family, and the community.
- As part of this initiative, *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents* was developed to provide comprehensive health supervision guidelines, including recommendations on immunizations, routine health screenings, and anticipatory guidance.
- The American Academy of Pediatrics (AAP) and the MCHB are committed to the multidisciplinary and multicultural nature of the Bright Futures initiative.
- The new guidelines will be released on October 27 and the promotion materials are available at <http://mchb.hrsa.gov/childhealthday/>

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# Questions !!!!

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