

# The National Children's Study

2004  
EPA Science Forum

Healthy Communities and Ecosystems

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## What is the NCS?

The National Children's Study 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. The goal of the study is to improve the health and well-being of children.

The study defines "environment" broadly and will take a number of issues into account, including:

- Natural and man-made environmental factors
- Biological, chemical and physical factors
- Social factors
- Behavioral influences and outcomes
- Genetics
- Cultural and family influences
- Geographic locations

Researchers will analyze how these elements interact with each other and what helpful and/or harmful effects they might have on children's health. By studying children through their different phases of growth and development, researchers will be better able to understand the role of these factors on health and disease. The study will also allow scientists to find the differences that exist between groups of people, in terms of their health, health care access, disease occurrence, and other issues, so that the interaction of these differences or disparities with environmental factors can be addressed. The National Children's Study will be one of the richest information resources available for answering questions related to children's health and development and will form the basis of child health guidance, interventions, and policy for generations to come. It is anticipated that the preliminary results from the first years of the study will be available in 2008-2009.

## The NCS is expected to:

- Examine 100,000 children across the United States
- Measure health, development and environment across life stages
  - before birth
  - infancy
  - childhood
  - and into adulthood
- Evaluate effects of short-term, chronic and intermittent exposures
- Explore links between environmental exposures and children's health outcomes of public health concern.
- Evaluate health disparities

## Current NCS activities:

- Plans for launching the study in 2006 are underway
- Protocol development is underway
- Sampling strategies discussed in background papers at a recent workshop and by the NCS Advisory Committee in late June, 2004.
- Workshops, for example in May and June, 2004:
  - Cancer and the National Children's Study: Opportunities and Challenges
  - Methods for the Assessment of Asthma-Related Health Outcomes
  - Gene Environment Interaction and the Regulation of Behavior
  - Expanding Methodologies for Capturing Day-Specific Probabilities of Conception
- Pilot Studies, for example:
  - Collection of biological samples, including the feasibility of those in addition to ones collected during regular clinical visits
  - Evaluation and validation of accessible biological samples as surrogates for analyzing molecular and cellular events in inaccessible tissues
  - Biological and environmental exposure measurements in pregnancy and the fetal environment
  - Environmental precursors to asthma - e.g. early changes in immune function, environmental and genetic factors
  - The utility of frozen breast milk in accurate assessment of environmental toxicants or their metabolites, and metabolic, nutritional and genomic endpoints

## NCS is a Multi-Agency Effort

The NCS grew out of the President's Task Force on Environmental Health Risks and Safety Risks to Children, and was authorized in the Children's Health Act of 2000.

The Children's Health Act directed The National Institute of Child Health and Human Development (NICHD) to conduct the study along with a consortium of federal agencies, including the Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention (CDC) and the National Institute of Environmental Health Sciences (NIEHS).

Background information is available at [www.NationalChildrensStudy.gov](http://www.NationalChildrensStudy.gov)

For questions or further information about the National Children's Study, please send an email to: [nsc@mail.nih.gov](mailto:nsc@mail.nih.gov)

