U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Centers for Disease Control and Prevention

U.S. ENVIRONMENTAL PROTECTION AGENCY



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THE NATIONAL CHILDREN'S STUDY: AN INTERNATIONAL PERSPECTIVE

What is the National Children's Study?

he 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 America's children.

The Study will take a number of health factors into account, including:

- Natural and man-made environmental factors
- Biological and chemical factors
- Physical factors
- Social factors
- Behavioral influences
- 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 and development. 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. Findings from the Study will be made available continuously as the Study progresses. The Study will 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 these differences or disparities can be addressed.

The Study will facilitate multi-nation research collaborations and enable comparisons of different national experiences.

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 in the United States for generations to come. It is anticipated that the preliminary results from the first years of the Study will be available in 2009-2010.

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What makes this study different from other United States health studies?

The National Children's Study has a number of features that make it unique:

- The Study is national in scope—Unlike other health studies, the National Children's Study includes children and families from different areas of the country, from varied backgrounds, and of different family structures to allow investigation of issues important to the diverse United States population.
- The Study takes a broad approach to "environment"—This study includes the wide range of biological, physical, social, cultural, and other factors comprising a child's environment that can interact with genes and affect health and development.
- **The Study is long-term in design**—This study will collect information on the same people from before birth into adulthood. By following children and families for 21 years or more, the Study will collect information about health at different ages or stages of growth and in various situations, and will shed light on the factors that influence health and development as people grow.
- Results will become available as the Study progresses—Even though the Study will continue for more than 20 years, information will be available continuously as developmental stages are attained and as results are analyzed throughout the Study. These results may lead to opportunities for researchers to pose new questions about the interactions of children's well being and their environments.

The Study has broad input from multiple United States government agencies, as well as from public organizations and the private sector—The National Children's Study relies on unique, overarching partnerships with many components for advice and input about the design and conduct of the Study. Representatives of United States federal, state, and local agencies as well as national and international universities,

academic and professional societies, communities, advocacy organizations, and the private sector all play vital roles in these partnerships. The partners are involved in advising on various phases of the Study, from its design, to its conclusion, to ensure that the results are accurate, unbiased, and reliable.

• The Study uses state-of-the-art technology—By using the most up-todate data collection and communications methods available, the Study will provide the most accurate and reliable results possible. These technologies will help to track the progress of children and families, ensure that measurements are taken accurately, manage information collected in the Study, and maintain communication between all those involved in the Study for 21 years or more.

The Study examines many questions—Unlike other studies that are trying to answer a single question related to children's health, the National Children's Study addresses multiple questions on multiple issues, to provide as much information as possible on health and development. Some example questions are:

- How do sociocultural factors contribute to the risk of injury?
- Do household pesticides have adverse effects on neurodevelopment?
- How does one's genetic makeup affect asthma severity?

What is the progress of the National Children's Study?

The first phase of the National Children's Study was devoted to planning. Many questions were assessed and answered, such as: What aspects of health and life will be measured? How will the information be collected? What are the special population groups that need to be involved? How will the participants' safety and privacy be protected? These questions have been defined in the Study protocol. The implementation phase of the Study began when Vanguard Centers and the Coordinating Center were established in 2005, and will continue with recruitment of Study participants and the addition of more Study Centers.

What is the value of an international dimension to the National Children's Study?

The opportunity to coordinate the Study with other new and ongoing longitudinal cohort studies in other countries will provide an added value to all longitudinal cohort studies by enabling investigators and their countries to exchange information regarding the health and development of children. Structuring studies in different countries in a manner that will enable cross-cultural and cross-country comparisons will build on the wealth of results.



What are the opportunities for international parties, agencies, and investigators to interact with the National Children's Study?

The Study's International Interest Group is comprised of investigators who are currently working on or are interested in establishing longitudinal cohort studies on children's environmental health, as well as other interested parties worldwide. The group's goal is to facilitate communication and sharing of ideas in order to encourage a wider exchange of information on study design and on research results.

Additionally, the Study has spearheaded an International Childhood Cancer Cohort Consortium, an international alliance of child longitudinal studies focused on the role of various environmental exposures in childhood cancer. The Consortium members include investigators who are currently working on or are interested in establishing longitudinal cohort studies on children's environmental health, as well as childhood cancer researchers. The goal is to establish a combined effort and database large enough for prospective studies of childhood cancer and other infrequent diseases.

How can I get more information about the Study?

To learn more about the National Children's Study, contact: **The National Children's Study E-mail:** NCS@mail.nih.gov **Internet:** www.nationalchildrensstudy.gov **Mail:** 6100 Executive Boulevard, Room 5C01, Rockville, MD, 20892-7510, U.S.A. **Phone:** 011-301-594-9147 **Fax:** 011-301-480-1222

Study Sponsors

The U.S. Children's Health Act of 2000 authorized the National Institute of Child Health and Human Development (NICHD) and a consortium of U.S. federal agencies to conduct the National Children's Study. 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. The NICHD is part of the National Institutes of Health (NIH), the biomedical research arm of the U.S. federal government. Both the CDC and the NIH fall under the U.S. Department of Health and Human Services, the principal federal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves. The EPA is the arm of the U.S. federal government that protects human health and safeguards the natural environment — air, water, and land — upon which life depends. These agencies are dedicated to working together to improve the health of all children through the successful completion of the National Children's Study.

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