

Proposed children's study needs refinement, report finds

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A study that would track the health of 100,000 babies to age 21 has been put on hold following the release of an assessment report issued June 16 by the National Research Council and Institute of Medicine (IOM).

While the congressionally mandated report endorses several aspects of the proposed study design of the National Children's Study (NCS), the authors – including Sara McLanahan, the William S. Tod Professor of Sociology and Public Affairs at Princeton University's Woodrow Wilson School of International and Public Affairs – are critical of the sampling design and study content.

Authorized by the Children's Health Act of 2000, NCS originated after a request by Congress to examine how environmental factors, like social settings and pollution, influence the long-term health of children. The study, managed by an office at the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), will recruit 100,000 women and their unborn babies and follow them through age 21. In March 2013, Congress requested that IOM write an assessment of the study design.

While the authors support many aspects of the proposed design, they particularly do not endorse the study's plan to recruit half of the children at birth. Doing so would skew the data obtained, the authors say, due to the scientific importance of prenatal exposures on child development. Instead, the authors recommend recruiting all 95,000 mothers during pregnancy, which can be done for the same cost – if 10,000



"convenience samples" are dropped.

"Collecting data on mothers-to-be during the prenatal phase is important and could provide information of paramount importance related to the health, growth and development of U.S. children," said McLanahan, who also directs the Bendheim-Thoman Center for Research on Child Wellbeing. "If carried out successfully, the survey has the potential to be the most comprehensive study of child-health and development in the world."

The report authors endorse several of the design features, however, including:

- The use of a national equal probability sample for a large cohort of births
- The concept of the study as a data collection platform with a focus on health and development guided by exemplar scientific hypotheses
- The inclusion of siblings born within a four-year window
- The collection and storage of biological and environmental samples to permit subsequent analysis

Among its recommendations, the report urges the NICHD to enhance the scientific expertise of the NCS program office by recruiting and contracting with experts in relevant fields from within the National Institutes of Health, other federal agencies and organizations outside of government.

In addition, NICHD should establish an authoritative multidisciplinary oversight structure to review the program office's decisions and establish a mechanism for regular, independent outside review by the qualified organization or a study section like those in NIH.



"Asthma, ADHD and obesity are all on the rise in this country, and probably caused by environmental factors," said McLanahan. "The NCS is designed to collect an unprecedented volume of data on the kinds of environmental and psycho-social exposures both before and after children are born. Moreover, its large size enables the NCS to support analyses of the underlying causes of health disparities across groups defined by race, ethnicity and socioeconomic status, which is an important national health problem identified in the Children's Health Act of 2000."

More information: The report, "The National Children's Study 2014: An Assessment," was first made available June 16. View the original report: www.nap.edu/catalog.php?record_id=18826

Provided by Princeton University

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