ECHO
Environmental influences on Child Health Outcomes
A program supported by the NIH

Study Summary

ECHO Program Collects Valuable Data on Nutrition During Pregnancy and Early Life

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Who sponsored this study?

The Environmental influences on Child Health Outcomes (ECHO) Program, Office of the Director, National Institutes of Health supported this research.

Why was this study needed?

Improving nutrition during pregnancy and childhood is a key focus for public health in the United States. Many pregnant people and children face deficiencies in essential vitamins and minerals coupled with excess salt, saturated fats, and sugars in their diets. Socioeconomic factors may affect access to nutritious food, contributing to disparities in rates of diet-related chronic disease that could affect pregnancy outcomes and child growth and development. Currently available nutrition data provide only a snapshot of participant diets and cannot track how early-life diet affects later child health outcomes. The ECHO Cohort Consortium is addressing these challenges by gathering information over time about the dietary habits of individuals during pregnancy and childhood from a large, diverse group of participants. This study examines the types of diet information collected from the ECHO Cohort and provides examples of how researchers can use this data to learn more about the role of nutrition in child health outcomes.

What were the study results?

This study aimed to describe dietary intake data available in the ECHO Program as of August 2022, from pregnancy through adolescence, including estimated sample sizes, and to highlight the potential for future analyses of nutrition and child health. As of that date, 66 ECHO Cohort Study Sites across the country had collected diet information using a variety of methods, including dietary recalls, food frequency questionnaires, and questionnaires about supplement use. Diet information from these study sites is especially useful because it has been collected from a large group of diverse people, and because many families provided information more than once over the course of pregnancy and childhood.

Footnote: Results reported here are for a single study. Other or future studies may provide new information or different results. You should always consult with a qualified healthcare provider for diagnosis and for answers to your personal questions.

What was the study's impact?

This study highlights the large amount of diet information already available from the ECHO Cohort and the opportunities for researchers to access this publicly available resource to answer important questions about nutrition and child health outcomes.

Who was involved?

This study examined data from pregnant people and children at 66 ECHO Cohort Study Sites in 34 U.S. states who answered questions about their diets by August 2022. Data about more than 26,000 pregnant people and 27,000 children is publicly available.

What happened during the study?

Researchers examined the diet information that study sites collected from pregnant people and children through August 2022, including questionnaires and medical records. Researchers sorted this information by the type of questionnaire and whether it was from a pregnant person or a child. Many participants contributed data from both the pregnant person and the child and reported on their diet more than once.

What happens next?

The ECHO Program will continue to collect diet information from participants. Information from over 33,000 pregnancies and more than 31,000 children in the ECHO Program is now accessible to researchers. This de-identified data is publicly available to researchers through the National Institute of Child Health and Human Development Data and Specimen Hub (DASH) to encourage broad use to answer important questions about nutrition and child health.

Where can I learn more?

Access the full journal article, titled "Opportunities for examining child health impacts of early-life nutrition in the ECHO Program: Maternal and child dietary intake data from pregnancy to adolescence" in *Current Developments in Nutrition*.

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