

Concept Clearance

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Concept Title: A Translational Lens for Children's Environmental Health: A New Vision for 2020

Introduction

For more than 20 years, the NIEHS has developed and sustained a strong-base of Children's Environmental Health (CEH) research projects through both its unsolicited program and the NIEHS and EPA Children's Environmental Health Centers (CEHC). The emphasis of the CEHC to support transdisciplinary research teams and science has provided demonstrable evidence that this approach for addressing major CEH problems at the local, regional, and national level is contributing to the protection of our children. The 2017 Impact Report provides many specific examples. https://www.epa.gov/sites/production/files/2017-10/documents/niehs_epa_childrens_centers_impact_report_2017_0.pdf.

In 2018, NIEHS supported more than 308 research projects for \$89,721,501.00 in children's environmental health from mechanistic to population-based studies. In addition to the unsolicited portfolio, this support includes targeted programs such as:

- Children's Health Exposure Analysis Resource Program
- Maintain and Enrich Resources for Existing Environmental Epidemiology cohorts (R24).
- Preconception Exposure Window and Health of the Offspring,
- Environmental Influences on Placental Origins of Development,
- Environmental and Autism Spectrum Disorder,

At the same time, NIH OD is directing the Environmental Influences on Child Health Outcomes (ECHO) Program (2016-2023) where over more than 20+ NIEHS pediatric cohorts are active awardees and NIEHS CEH grantees and program staff play an active leadership role in the program. The program objective is to improve the health of children and adolescents by conducting observational and interventional research that will inform high-impact programs, policies, and practices as well as provide the tools for researchers to work collaboratively to improve child health.

Capitalizing on this strong base of fundamental knowledge and active research opportunities and program about the effects of a variety of environmental exposures on children's health, NIEHS is interested in establishing a new CEH program that will facilitate translation of the research into tangible tools, methods, messages, and activities to protect and improve children's health from environmental threats.

Program Goals and Scope

The Program Goals are to:

1. Facilitate interaction among experts in children's environmental health science, health and risk communication, behavioral and social sciences, as well as engaging stakeholder to move the science into public health and clinical practice.
2. Synthesize and translate extant CEH research into tangible communication tools, dissemination methods, health messages, and educational activities that can be used by stakeholders including at-risk populations, affected communities and the clinical or public health community to improve children's health.
3. Stimulate pilot projects that address emerging environmental health concerns/exposures, as well as test new tools, methods, and/or intervention/prevention strategies.

Mechanism and Justification

NIEHS is proposing the use of a center-like mechanism to create a collaborative network of Children's Environmental Health Translation Centers across the US to achieve its goals. Each center will support a diverse base of subject matter expertise in CEH and health communications (e.g., health behavior, health education, risk communication, health policy) to accelerate the research findings into practice and policy to protect children's health. Centers will be encouraged to look outside their academic institution to bring in the right balance of subject matter expertise and disciplines to support research translation efforts and activities.

Each center will be managed and directed by two Program Directors, an established CEH investigator and a Health Communication Researcher. The center would be comprised of three components:

- Research Translation Core
- Development Core
- Administrative Core

The most significant component for these centers will be the Research Translation Core (RTC) with a focus on curriculum development, CEH messaging, dissemination efforts and opportunities to expand the translation of the extant CEH research. The RTC will have the primary responsibility of developing and implementing dissemination strategies for their target audiences. They will work with subject matter experts within the Center program in developing a strong communication plan and prioritizing the types of messages, curriculum and campaigns to be created, evaluated and disseminated.

The Developmental Core (DC) would be responsible for the development and management of a Pilot and Feasibility program to support projects directed at emerging and time-sensitive issues relevant to CEH, generation of preliminary data for testing new intervention/prevention strategies; or the testing or evaluation of communication and messaging strategies. The DC would also provide professional development and career advancement for the next generation of CEH scientist by engaging them in the pilot projects and mentorships through interdisciplinary collaborations and intellectual exchange.

The primary aim of the Administrative Core (AC) would be to provide the leadership and the organizational framework for the management, direction, and coordination of the program including center operations, communication services such a center website, and evaluate established performance metrics for each of Center Cores. The core will also be encouraged to offer CEH events and jointly sponsored workshops and conferences with other Center(s) members and affiliates to seed innovation and foster intellectual exchange.

Our goal would be to create a new translational centers program that would function as a regional and national resource in CEH; to facilitate research training, to encourage partnerships and collaborations with top experts nationally; and to provide a means to respond to emerging threats and new ideas through pilot projects. We hope the centers will be able to accelerate the translation of the rich body of existing research and knowledge and move it into the hands of our key stake holders such as affected communities, health practitioners and policy makers.

We are proposing a Center (P or U) mechanism for this RFA, application cost, and timeline as follows:

June 2019 Present program concept to NAEHS Council, If approved.

October 2019 Publish FOA (coincide with Children's Health Month)

February 2019 Receipt of applications

June/July 2020 Review

Sep 2020 Present program plan to NAEHS Council

December 01 2020 start date

Anticipated number of awards: 5 awards at 1 million total cost per year for five years.

Total Cost for program- \$ 5 million annually