

**Report 49:** Children's Environmental Health Research: Networks and More Bang for the Buck

**Convener:** Carol Stroebe

**Brief History:**

When we protect children, we protect others who are as vulnerable as well

To get to healthy adults, you need healthy children.

NIEHS has made children's environmental health a priority, supporting centers of excellence in research in children's environmental health and the National Children's Study.

**Why is this topic important now:**

The rising prevalence of children's diseases associated with environmental factors: asthma, autism, cancer.

We have activities now, such as the National Children's Study, research centers, PEHSUs. We realize that the structure is very complex, and we need a structure. Based on the experience we've gotten from the existing centers et al, the state of the science, etc., what should be the future role, activities, structure of NIEHS' children's environmental health focus?

**Discussion:**

NCS anticipates additional studies will be done to leverage the data. NIEHS perhaps should look at that mechanism to see if that's the best way to go. Will the other hypotheses be looked at by other investigators? If you want to study early life events, periconceptual, fetal, newborn, will you still be able to make it through the NCS process to get the additional data you need?

Lots of opportunities for cross-fertilization

Will there be adequate coordination between NCS study sites?

CEH research centers each do their own silo of research of CEH; it's different than NICHD which has linked studies go on in different sites. Is there a role for an EH children's research network?

Given the state of the science now, and what we've learned from current/past activities, do we need a structure so that the complexity of studying children's environmental health can be addressed? How do we build on what we've learned?

Community partnership: should it continue to be required? Yes

How to network communities? It can be done.

What about similarity to MCHB to emergency pediatrics. If, e.g., the PEHSUs or others could capture the children sickened by sick building syndrome, arsenic exposure. Could be source of similar subjects of studies.

Need to identify sick building as a disease.

Need good public communications to let people know about the work and findings.

Even with lead poisoning, you have to do a multi-site study to find enough children.

Not a lot of guidance of how to deal with incoming questions, eg, about problems dealing with exposure/health at schools, child cares, to PEHSUs or study sites.

Concerns about further harm to indoor environmental health due to weatherization and tighter buildings

Neonatal research centers would be a good source of samples; maternal fetal sampling network could be another source

**Recommendations:**

Children need to remain a priority; the existing programs need to be maintained, even expanded.

Just as other research fields have developed national research networks (eg, COG, NICHD NRN, MFM-RN, PECARN) to move their fields rapidly forward, NIEHS should invest in a national research network, where studies are conducted at multiple sites. PEHSUs could be used as the initial patient identification source. (Other potential high risk populations such as NICUs could be considered as well)

Existing research centers and their partner communities should be continued and networked (researchers networked, community leaders/groups/parents networked)

The Children's Environmental Research Centers are measuring a lot of the same health outcomes, exposures; NIEHS should require that this data be pooled.

Continue to require/expand requirement to partner with community (broad definition of community) in research, above and beyond "communication and outreach."

Require research centers to translate their research findings to the public and create central repository of these public information materials. Outreach should be done to AAP committee on environmental health, NAPNAP, AWHONN, physicians assistants, etc. about these materials and other information.

NIEHS should increase work on defining the exposome of children.

In the NCS, environmental sampling of school and child care facilities should be required.

NIEHS can better partner with other entities (eg, CDC, ATSDR) to assist in issues of notification of exposures, identifying risk

**Discussion Participants:**

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