



CHILDREN'S ENVIRONMENTAL HEALTH NETWORK
110 Maryland Avenue NE, Suite 505
Washington, DC 20002
202.543.4033 www.cehn.org cehn@cehn.org

Testimony of Cynthia Bearer, M.D., Ph.D., FAAP
CEHN Board Chair
Environment and Public Works Committee
United States Senate
March 17, 2010

Thank you for the opportunity to testify before you today. My name is Cynthia Bearer. I am a pediatric neonatologist and I currently serve as the Mary Gray Cobey Professor and Division Chief of Neonatology at the University of Maryland. I am here today as the Chair of the Board of the Children's Environmental Health Network. We commend Senators Boxer and Inhofe for holding this hearing today and for your ongoing interest in environmental risks to children.

The Network is a national organization whose mission is to promote a healthy environment and to protect the fetus and the child from environmental health hazards. The Network's Board and committee members include internationally-recognized experts in children's environmental health who serve on key Federal advisory panels and scientific boards.

We at the Network recognize the long leadership that you, Madame Chair, have provided in protecting children from environmental hazards. You authored the first legislation in Congress to recognize children's unique vulnerabilities and susceptibilities to toxicants in their environment and to propose necessary improvements to our regulatory framework to protect our children. Your leadership in this field has not wavered.

I urge the Committee embrace its role in assuring that all children grow up in healthy environments.

One component of creating healthy environments for children is for the Committee to assure that the basic facts of pediatric environmental health are incorporated into all of the policies and programs in its jurisdiction. These facts, supported by sound science as well as a solid consensus in the scientific community, include:

- Children's bodies and behaviors differ from adults. In general, they are more vulnerable than adults to toxic chemicals.
- Children are growing. Pound for pound, children eat more food, drink more water and breathe more air than adults. Thus, they are likely to absorb higher doses of substances from their environment than do adults. Children have higher metabolic rates than adults and are different from adults in how their bodies absorb, detoxify and excrete toxicants.
- Children's systems, including their nervous, reproductive, digestive, respiratory and immune systems, are developing. This process of development creates periods of vulnerability when

environmental exposures may result in irreversible damage while the same exposure to a mature system may result in little or no damage.

- Children's behavior patterns can lead to different patterns of exposures. For example, they exhibit hand-to-mouth behavior, ingesting whatever substances may be on their hands, toys, household items, and floors. Children play and live in a different space than do adults. For example, very young children spend hours close to the ground where there may be more exposure to toxicants in dust, soil, and carpets as well as low-lying vapors such as radon, mercury vapor or pesticides.
- Children have a longer life expectancy than adults; thus they have more time to develop diseases with long latency periods that may be triggered by early environmental exposures, such as cancer or Parkinson's disease.

These concepts may be more important today than they were 50 or 100 years ago because the world in which today's children live has changed tremendously from that of previous generations. There has been a phenomenal increase in the substances to which children are exposed. According to the EPA, more than 83,000 industrial chemicals are currently produced or imported into the United States. Every day, children are exposed to a mix of chemicals, most of them untested for their effects on developing systems. Many of these chemicals are readily passed across the placenta to the fetus, to the infant via breast milk or through skin, or via food, toys and other children's products. Many of these chemicals are also ingested in food and water or through the lungs.

As epidemiologists see increasing rates of asthma, learning disabilities, and childhood cancers; as parents seek the causes of birth defects; as researchers understand more and more about the fetal origins of disease, policy makers must do a much better job of taking into account the role of environmental toxicants in affecting human health.

Emerging science shows the need to act with caution to protect children from toxics

Unfortunately, the traditional approaches used for setting standards, regulations and guidelines have been to use a one-size-fits-all template, and that template is usually the healthy adult male. The predominant assumption in our regulatory approach to environmental protection is that potential hazards are innocent until proven guilty.

One example is Bisphenol-A, or BPA. Bisphenol-A is widely used in consumer products such as plastic baby bottles, toys, plastic water bottles, in thermal paper production, and the linings of metal food cans. BPA, originally developed as a replacement for the female hormone estrogen, is an endocrine disrupter. More than a million pounds are manufactured in the U.S. every year. Yet, we only recently have seen the publication of independent studies that have found harm, most disturbingly alterations of neurological development in early life.

Studies indicate that Bisphenol A can be found in more than 90% of the U.S. population. BPA is just one chemical that is ubiquitous in our environment and in our bodies. Parents understandably ask: "How did we allow these substances to get into our children's bodies when we know so little about them?"

The U.S. Environmental Protection Agency (EPA) regulates thousands of industrial chemicals through the Toxic Substances Control Act (TSCA) (15 U.S.C. s/s 2601 et seq.). This statute was adopted by Congress in 1976.

As far back as 1994, the then-General Accounting Office (GAO) concluded that EPA regulates few chemicals under TSCA, listing only five (PCBs, chlorofluorocarbons, dioxin, asbestos and hexavalent chromium).

One of these -- PCBs -- was required to be regulated by the statute and led to one of the only two cases in which the EPA used TSCA to attempt a comprehensive approach to the regulation of chemicals.

The other Agency effort to undertake a comprehensive approach to the regulation of a chemical was for asbestos. After 10 years of building its case, the courts ruled that EPA was unable to make a supportable finding under TSCA for regulating asbestos -- a known human carcinogen which has caused at least 200,000 deaths in the U.S.

Some of the concepts that must be adopted if we are to replace TSCA with a statute that protects children include:

- Health protection of children as the basis for chemical regulatory decisions.
- A strong safety standard.
- A high priority on protecting children's health and that of other vulnerable populations.
- Don't allow exposure to chemicals that do not meet core information requirements.
- Shift the burden of proof to industry to demonstrate safety of a chemical.
- Establish a process with deadlines and commitment to timeliness.
- Reward the development of science-based information about chemicals and exposures.
- Provide an additional safety margin for children, pregnant women, the fetus, nursing women, and women of child-bearing age.
- Prohibit health information from being declared as "confidential business information"

A reformed TSCA should protect children from chemicals that interfere with their hormone systems, such as BPA, and from unknown or emerging threats to health such as nanotechnology and perfluorinated chemicals. The Agency must also be at the forefront of using promising new scientific methodologies, such as epigenetics, genomics and metabolomics, to more expeditiously and accurately protect the health and development of our most vulnerable. When we protect the most vulnerable, we protect everyone.

Children's health and healthy children must be an on-going priority for this and every Administration

Since the Network's creation in 1992, great leaps forward have been made.

Most recently, the EPA has taken many steps that will move us toward healthier environments for children and we commend Administrator Jackson for her leadership. This includes better protections for farmworkers and farmworker children from pesticides and improving pesticide

labeling as well as initiatives to improve environmental health in schools. We believe that the Agency will continue to make strides forward to better protecting children.

However, Administrator Jackson and her Agency face a difficult challenge of regaining lost momentum.

In 1997, President Clinton issued Executive Order 13045, to protect children from environmental health and safety risks, resulting in notable successes and promising initiatives, most notably an effective interagency task force. Since 1995, EPA has a policy requiring the Agency to consistently and explicitly evaluate environmental risks of infants and children in all risk assessments, risk characterizations, and in setting environmental and public health standards. Since 1997, the Office of Children's Health Protection (OCHP) has led the Agency's efforts to protect children from environmental hazards.

Over a number of years, the Executive Order was weakened and its inter-agency task force is now moribund. The EPA policy has not been followed routinely and consistently. For example, the Agency's updated cancer supplemental guidance is not applied across-the-board, as EPA's own Science Advisory Board (SAB) recommended and which would result in better protecting children from carcinogens. Once highly effective and well-regarded, the OCHP has struggled with staffing and funding issues as well as the dilution of its mission.

The interagency task force established under the Executive Order engendered collaboration across agencies critical to addressing children's environmental health and safety issues like asthma, lead poisoning, childhood cancer, injury prevention and establishment of the National Children's Study. These have involved a myriad of agencies (e.g., EPA, HHS, HUD, Education, CPSC and others). Leadership of the task force by the EPA Administrator and the Secretary of HHS catalyzed efforts across the government.

First, the Network believes that key components of this Executive Order, such as the interagency task force, should be put into statute and would be very valuable in protecting children.. Doing so would make it more difficult for agencies to ignore it in the future

Such legislation must also assure that other agencies with jurisdiction over environments where children spend much of their time -- most notably the Department of Education -- are active and engaged partners. This also includes those offices handling child care and related issues.

As you know, leadership at senior levels is critical to making changes and getting things done. Thus, the knowledge of and commitment to children's environmental health should be an important qualification for all political appointees to relevant posts, as well as those in career posts. We commend you, Madame Chair, for using confirmation hearings to put appointees on the record regarding these concerns. We hope that this becomes a tradition for this Committee and among your colleagues.

The Network believes that the OCHP and its advisory body, the Children's Health Protection Advisory Committee (CHPAC), has been and should continue to be the conscience for children's health protection in EPA, as well as a spotlight to highlight accomplishments, shortfalls, and

opportunities. Thus, the CHPAC and possibly OCHP itself might be created in statute, with assurances that a substantial portion of CHPAC appointees be independent experts in pediatric environmental health.

In sum, the Network urges the Committee to direct the Agency to assure that all of its activities and programs -- including regulations, guidelines, assessments and research -- specifically consider children. The Agency's work must always assure that children and other vulnerable subpopulations are protected, especially poor children, minority children, farmworker children, and others at risk.

Protecting Children's Environmental Health, Indoors

A focus on the home environment, including the pollutants and products to which children are exposed, is necessary. Young children spend hours close to the ground where there may be more exposure to toxicants in dust, soil, and carpets as well as in low lying vapors such as radon or pesticides. Normal child development includes a great deal of hand-to-mouth behavior. This behavior provides another potent avenue for exposure to a variety of environmental chemicals.

Millions of preschoolers enter care as early as six weeks of age and can be in care for more than 40 hours per week. Yet little is known about the environmental health status of our child care centers nor how to assure that they are protecting this important group of children. Environmental health is rarely if ever considered in licensing centers or training child care professionals. The Network is one of the few entities who conduct educational and assessment activities at child care centers, often supported by some EPA regional offices. Much more needs to be done to assure that this environment is a healthy one.

The EPA and many others are working to improve school environmental health, though, again, much more needs to be done. Each school day, about 54 million children and nearly 7 million adults —20% of the total U.S. population—spend a full week inside schools. Unfortunately, many of the nation's 121,000 public and private K-12 school facilities are shoddy or even "sick" buildings whose environmental conditions harm children's health and undermine attendance, achievement, and productivity. In 1996 GAO reported that more than 13 million children were compelled to be in schools that threatened their health and safety.

Most people do not know that **no** agency is authorized to intervene to protect children from environmental hazards in schools. The Occupational Safety & Health Administration does not protect schoolchildren. It also doesn't cover a school employee unless the employee's job description specifically mentions the handling of hazardous chemicals. Thus, every day we require our children to spend hours in an environment where they and their parents have no options, alternatives or recourse if the environment is not healthy.

Thus, Madame Chair, we commend you for the leadership you have shown in fighting for healthier school environments, such as monitoring for air toxics around schools and addressing contaminants found in drinking water at some schools.

The Network also commends the EPA for its existing healthy schools activities, such as the Indoor Air Quality Tools for Schools program and other voluntary activities. We are especially supportive of the proposed Clean, Green and Healthy Schools Initiative in the EPA's FY 2011 budget. Under this initiative, EPA will co-lead an interagency effort in integrating existing school programs including asthma, indoor air quality, and enhanced use of integrated pest management. Among other activities, there will be increased air toxics monitoring for schools.

The Network believes that further steps to improve the school environment require examining other environmental hazards in school, such as pesticides, cleaning solutions, and other products.

For all indoor environments -- home, child care, and school -- indoor air quality is an ongoing challenge. The air within homes and other buildings can be more seriously polluted than the outdoor air in even the largest and most industrialized cities. Since children spend between 80 and 90 percent of their time indoors, poor indoor air quality may post a greater risk to their health than exposure to outdoor air pollution.

Yet parents, caregivers, teachers, and facility managers have no guidance as to when the line between healthy and unhealthy indoor air is crossed. The Network acknowledges that the challenge is great, but believes that the Agency should be directed to work toward standards for indoor air quality.

In brief, in order to be healthy you have to live in a healthy place. If we work to assure that the many environments that make up our children's world are healthy, we will improve the health of our children.

In conclusion, the ultimate question is: are we committed to protecting our children from environmental health threats?

Waiting for certain evidence of harm means that a generation or more of children would be placed unnecessarily at risk of life-long, irreversible damage. For every exposure to a potentially harmful chemical that we eliminate, we reduce the risk of disease or disability, and help to assure that our children will have long, healthy and productive lives.

Thank you for the opportunity to testify on these critical issues, and thank you for your outstanding leadership on behalf of children. I would be happy to answer any questions you may have.