

**INSTITUTE FOR CHILDREN'S ENVIRONMENTAL HEALTH**  
**WASHINGTON STATE HEALTHY SCHOOLS ROUNDTABLE**

ICEH and the EPA Region 10 co-sponsored the invitational Washington State Healthy Schools Roundtable on March 26, 2001 at the Town Hall in Seattle. Almost forty participants attended, including public health administrators, teachers, parent activists, non-profit leaders, facility managers, medical researchers, and so forth. In addition, we had some media coverage that evening from local television stations. Below are the Notes from the meeting, including links with pertinent web sites.

As part of the follow-up to the Washington State Healthy Schools Roundtable, ICEH is working with a task force to define and raise awareness about the need for environmentally healthy schools that protect children from harmful exposures.

As this effort is refined, more information will be posted on this web site. In addition, ICEH has set up a listserv to facilitate communication among all those who participated in the Roundtable and circulate information on events, news articles and other materials related to healthy schools.

**WASHINGTON STATE HEALTHY SCHOOLS ROUNDTABLE**  
**MARCH 26, 2001 – TOWN HALL, SEATTLE**  
**CO-SPONSORED BY THE EPA REGION 10 AND**  
**THE INSTITUTE FOR CHILDREN'S ENVIRONMENTAL HEALTH**

**NOTES**

**Objectives:**

- To highlight a range of environmental concerns that can undermine the health of children while they attend school
- To review and coordinate existing resources and initiatives
- To identify resource gaps in funding, data, and programs and begin to identify how to address these
- To begin to devise a prioritized regional action plan for minimizing and preventing environmental health risks in schools

**Introductions:**

Things we would like to see to create healthier schools:  
(verbalized during first introductions)

- Better environmental health standards and enforcement
- Parent notification of pesticide use and good integrated pest management (IPM) training in schools

- Community engagement in kids' learning process and things that influence it
- Increased awareness of children's environmental health issues in the medical community
- Better funding
- CO<sub>2</sub> monitors for more schools
- Education for educators on IAQ
- Law requiring certification of contractors/builders who implement green practices (and a database of trained contractors)
- Involvement of school nurses
- General reduction of chemical use
- More cooperation between schools, parents, and agencies
- Pediatric environmental health standards in schools
- Policies that reflect current research findings
- Clear definition of school environmental health and safety

## **Keynote**

Claire Barnett, MBA, Executive Director, Healthy Schools Network, Inc.

The Healthy Schools Network (HSN) was founded in 1994 with the mission of assuring every child and school employee an environmentally healthy school that is clean and in good repair. HSN works toward this mission in New York State and nationally, through research, education, advocacy, and coalition-building.

While several Federal studies have reported a virtual epidemic of indoor air pollution in school buildings across the country, Barnett pointed out that no indoor air quality standards have been set specifically for children, recognizing their special vulnerabilities and that no requirements to track pupil illnesses exist. Even when school policies to protect children's environmental health are in place, she added, the challenge of implementing these policies remains.

The Healthy Schools Network worked hand-in-hand with schools, state and local groups in New York State to pass a Governor's environment bond act that included Clean Air In Schools. The bond measure provided \$125 million dollars for the elimination of coal boilers in school buildings. Before the antiquated boilers were removed, explained Barnett, it was not an uncommon practice for teachers, to place sheets and other make-shift filters over the heating ducts in their classrooms, in an effort to keep gritty coal dust particulates from entering their rooms. In a separate action, the State Department of Education endorsed Tools for Schools and provided training state-wide in its use.

The Healthy Schools Network has also helped win new funds, staffing and regulations: Comprehensive School Health and Safety Regulations in New York State. These new regulations require school districts to:

- Have preventive maintenance plans
- Conduct annual facilities and grounds inspections

- Appoint school health and safety committees
- Be accountable for school health and safety via annual report cards
- Protect health during school renovations

Barnett emphasized the important role of organized and insistent non-profit and grassroots organizations in achieving systemic change in a state, pointing out that local organizing and advocacy provides the political incentive and clout for state agency employees to champion change from within their agencies. She also underlined the need to highlight those actions that are money savers for schools and that at the same time, lead to better buildings and healthier kids, such as Integrated Pest Management (IPM). Not all environmental health actions like these cost money—some save money, she noted.

As an issue of special concern, Barnett discussed school construction and renovation projects, underscoring that children are compelled to be on site during these projects and that it is precisely at these times when many environmental health hazards are created or exacerbated.

In a continuing effort to draw attention to the need for urgent school health and safety upgrades, HSN, along with a broad coalition of national, state and local groups, met with Secretary of Education Riley last fall and has spoken with the staff of the new Secretary of Education, Roderick R. Paige, Ph.D., urging him to include improving environmental health in schools among his top priorities. An unprecedented \$1.2 billion dollars are currently slated in the U.S. Department of Education budget for school health and safety repairs. This funding should be available to state departments of education by July 1, 2001.

Barnett highlighted the frustration of parents and community organizers with whom HSN works stemming from a lack of available information about environmental health conditions in schools and a lack of clear, transparent processes for getting questions answered. She noted that from a parent's perspective, there is no government agency to go to with concerns.

Barnett suggested that groups and individuals in Washington State do not need to do exactly the same things that New York State has done, but should think about starting simply by addressing just one or two key advocacy concerns, and to improve environmental health in their schools take advantage of related facilities initiatives, such as working to tie energy upgrades to health upgrades. She also offered a common sense answer to the recurrent question, “But how do we know/prove that it is exposures at school that are responsible for illnesses we see? . . . If the symptoms go away when the child is away from the school, that may be a good indication of where the root of the problem lies.”

Barnett closed by complimenting the groups and individuals present and note the terrific expertise already available at the conference.

## **Brief Overviews of Current Environmental Health Issues in Schools:**

### **Indoor Air** – Dave Blake, Northwest Air Pollution Authority

Blake highlighted consistent problems with HVAC systems in schools across the state, particularly inadequate maintenance and inadequate cleaning. He advocated for expanding the notion of “Indoor Air Quality - IAQ” to “Indoor Environmental Quality - IEQ”, in order to include the broad spectrum of environmental health issues threatening children in school buildings. Blake also underscored the importance of thinking about and planning for IEQ in the design phase of any building or renovation project. Several low cost / no cost approaches to improving Indoor Air quality were discussed, including careful upkeep of air filters and attention to maintaining positive air pressure.

### **Building Materials, Siting and Design Issues** –Dan Morris, Healthy Buildings, Inc.

Materials used in new school construction that emit VOC's are of particular concern. Morris also highlighted that design teams need to take into account the deterioration of building materials over time. “Caulk, for example, will fail, and that will mean moisture. . . which will mean mold,” Morris reminded us. Morris also mentioned that important issues to consider for school siting include: traffic, location of heavy industry or hazardous waste sites, location of agricultural land development or golf courses, and wet sites.

### **Chemicals used in Science Laboratories, Shops & Art Studios and Cleaning Supplies** - Elizabeth Jakab, Environmental Coordinator, Seattle School District

Jakab explained that there is no standardized list of approved chemicals for use in WA schools, and chemicals are not procured only from the districts’ main warehouse supplies, but are also brought to schools by individual teachers, parents and invited scientists or artists in residence. There is a need to set up a central control system for all incoming chemicals for each school. Coordinators for different areas (science, art, shops, and PTSA activities) need to work on eliminating highly hazardous chemicals that are inappropriate for that particular age group – this might be different from kindergarten to high school. The Seattle School District has a centralized purchasing system for the least hazardous cleaning products for custodians. The District is working on setting up similar systems for other areas.

Jakab also suggested that safe handling of all chemicals and related health and safety issues be integrated into students' curricula, in order to build their own skills in choosing the least toxic alternative in a given situation and also to develop critical analysis skills in deciding when the use of a chemical is or is not necessary. In addition, she shared her extensive lists of concerns that she uses when she does ‘walk throughs’ in schools and identified the need for prioritizing these lists/issues.

### **Pesticides** - Cheryl Holzmeyer, Washington Toxics Coalition

Holzmeyer noted that a lack of baseline data on the quantity and types of pesticides used in WA State schools leads to a lack of available information for concerned parents. Currently, school districts aren't required to report their pesticide use to parents or state agencies, or to notify parents in advance of applications. A parent notification bill that would address some of these concerns is currently making its way through the WA State legislature. Another concern, Holzmeyer described, is the use of pesticides linked to serious long-term health problems such as cancer and nervous system damage. A few school districts have adopted policies ending the use of the most hazardous pesticides, but so far there are no state-wide standards for school pesticide use that are more progressive than for other jurisdictions.

### **Food Quality Issues - Trudy Bialic, PCC Natural Markets**

Bialic emphasized the need for more nutritious, healthy food in schools and the impact poor food has on students' learning capacity and behavior. She noted that though she would like to see schools adopt programs that include organic and foods not laden with pesticides and other synthetic chemicals, there are also small steps schools can take to provide students with highly quality food. For example, she described a school where there were lots of soda pop machines (and the school made money by selling certain brands of sodas). Some parents at that school decided that they wanted to convert the soda machines to juice machines because juice would be more nutritious. They were able to make this shift and work with the school to ensure the school would still receive funds from the juice company—a win-win situation for everyone.

### **Overview of Current Regulations**

Rich Ellis – Washington State Department of Health

Ellis first noted that many different groups addressing environmental health in schools use different languages, and we need to come up with a standard definition of environmental health in order to ensure we are all on the same page. He also emphasized that regulations are no help unless they are enforced and that we need to go further upstream to underscore preventive measures.

Ellis then talked about the WA State Board of Health's rule-making power for health and safety in schools. In exercising this authority, the Board of Health has adopted school rules WAC 246-366. These rules were last updated in 1991 and cover the following areas: 1) site approval; 2) construction plan review and school inspections; 3) basic building specifications; 4) plumbing, water supply, and fixtures; 5) sewage disposal; 6) ventilation; 7) heating; 8) temperature control; 9) sound control; 10) lighting; 11) food handling; 12) general safety. Chapter 246-366 of the Washington Administrative Code states: "These rules and regulations are established as minimum environmental standards for educational facilities and do not necessarily reflect optimum standards for facility planning and operation." Several of the sections under these rules are particularly pertinent to concerns about children's environmental health in schools:

**Site Approval (WAC 246-366-030)**

“(1) Before a new school facility is constructed, an addition is made to an existing school facility, or an existing school facility is remodeled, the board of education shall obtain written approval from the health officer that the proposed development site presents no health problems. The board of education may request the health officer make a survey and submit a written health appraisal of any proposed school site . . .” This section goes on to specify sound and size requirements for new school sitings.

**Plan Review and Inspection of Schools (-040)**

“(1) Any board of education, before constructing a new facility, or making any addition to or major alteration of an existing facility or any of the utilities connected with the facility, shall:

- (a) First submit final plans and specifications of such buildings or changes to the jurisdictional health officer;
- (b) Shall obtain the health officer's recommendations and any required changes, in writing;
- (c) Shall obtain written approval from the health officer, to the effect that such plans and specifications comply with these rules and regulations.

(2) The health officer shall:

- (a) Conduct a preoccupancy inspection of new construction to determine its conformity with the approved plans and specifications.
- (b) Make periodic inspections of each existing school within its jurisdiction, and forward to the board of education and the administrator of the inspected school a copy of his findings together with any required changes and recommendations.”

**Buildings (-050)**

“ . . . (4) The floors shall have an easily cleanable surface.

(5) The premises and all buildings shall be free of insects and rodents of public health significance and conditions which attract, provide harborage and promote propagation of vermin.

(6) All poisonous compounds shall be easily identified, used with extreme caution and stored in such a manner as to prevent unauthorized use or possible contamination of food and drink. . . .”

**Ventilation (-080)**

“(1) All rooms used by students or staff shall be kept reasonably free of all objectionable odor, excessive heat or condensation.

(2) All sources producing air contaminants of public health importance shall be controlled by the provision and maintenance of local mechanical exhaust ventilation systems as approved by the health officer.”

**Safety (-140)**

“(1) The existence of unsafe conditions which present a potential hazard to occupants of the school are in violation of these regulations. The secretary in cooperation with the state superintendent of public instruction shall review potentially hazardous conditions in schools which are in violation of good safety practice, especially in laboratories,

industrial arts and vocational instructional areas. They shall jointly prepare a guide for use by department personnel during routine school inspections in identifying violations of good safety practices. The guide should also include recommendations for safe facilities and safety practices. . .”

### **Exemption (-150)**

“The board of health may, at its discretion, exempt a school from complying with parts of these regulations when it has been found after thorough investigation and consideration that such exemption may be made in an individual case without placing the health or safety of the students or staff of the school in danger and that strict enforcement of the regulation would create an undue hardship upon the school.”

The WA State legislature has delegated the responsibility to implement these rules to local health agencies and the State Department of Health. The Health and Safety Guide for K-12 Schools in Washington, published jointly by the Office of Superintendent of Public Instruction and the WA Department of Health in December of 2000, is meant to be used by Health Department personnel during routine school inspections to identify violations of the above outlined rules. The Guide also contains recommendations for health and safety practices that are not required by the rules but that, when applied, would further reduce injury and illness.

## **Some Model Initiatives – Parent Activists**

### **Bainbridge Island - Ka'ren Ahern and Maria Mason**

Due to the work of their active and committed parent group, Coalition for Environmentally Safe Schools, Ahern and Mason mentioned that Bainbridge Island school district has adopted a strict IPM policy, banning the use of pesticides on school grounds. Instead, district schools make use of alternative methods of pest control, including flame weeders. The WA Toxics Coalition worked closely with parents on Bainbridge to develop this policy. Mason also expressed ongoing concern about other environmental health issues in schools (in addition to pesticide use), for example, the safety of using CCA-treated wood on playgrounds. She urged that where alternatives to toxic chemicals exist, they should be used. Both Ahern and Mason emphasized the importance of being persistent and the frustration they felt and continue to feel at not having any government agency to turn to for dependable assistance. They indicated that educating the media about their concerns for children's environmental health protection in the district helped them achieve their goals.

### **Seattle - Diane Cortese**

Cortese founded and leads the Environmental Council at her child's school. The Council has focused their energy on inventorying the art and cleaning supplies used in the school. They are also working to change the protocols used to select and order supplies to include potential environmental health implications as criteria, in addition to cost criteria. Additionally, they are working to design an IAQ policy that would articulate how to

implement Tools for Schools and what to do after the initial check-list step has been completed.

### **McKnight Middle School - Mary Keech**

Keech explained that she first became involved in School Safety Issues in 1994 when my children's elementary school underwent massive renovation during school hours. She was very concerned about the volume and severity of the hazards and spent countless hours in the library researching and finding numerous gaps in current laws. Her frustration mounted when she found nothing on the Internet and called many advocacy groups, who had ever heard of a school renovated during school hours. She also met with many agencies and discovered they could not set a precedent and enforce safe practices they did not have regulations, expertise, personnel, or budget for. In addition, she met with school officials who acted on some of our recommendations but: 1) Did not want to fully inform because that would alarm the parents 2) Did not believe the risk of construction during school hours outweighed what they perceived to be the cost of safety measures, so they were unwilling to pursue it further.

Keech then acted on the advice of legislators and presented her concerns to the school board. She said the board briefly looked at the surface of the issue, and said, "Everything looks fine. So what if there aren't any regulations? No one has been hurt."

She is now focused on air quality issues at McKnight Middle School. She has written a letter to the teacher's union president, and has assisted teachers and parents with understanding the issues and what questions to ask school administrators and agencies.

Keech then noted several things she has learned:

1. Schools don't have to inform parents regarding health and safety issues. Parents usually get blanket reassurances and no data. If you don't know what's going on, how will you know what to ask? Even if you know what to ask, there are loopholes in the Public Disclosure Law that may prevent you from getting the information.
2. How many school administrators and parents do you know that are capable of recognizing chemical or construction safety hazards? The hazard has to be recognized in order to prevent or avoid it. In my experience the principal is tasked with protecting the children – each principal has different degrees of understanding safety and health, and therefore you have different degrees of protection at each school.
3. Schools typically don't want to call an agency for help, and they don't have to. They "don't want to alarm the parents". Even if agencies become involved, the students are not always surveyed for symptoms.

Keech pointed out that unlike adult safety protocols, much of which is developed due to accidental exposures, pediatric safety protocols are not being developed: 1) Lack of data collection by a national agency responsible for safety and health of children in school; and 2) What parent in their right mind would willingly allow their child to undergo exposure research?

She closed by saying that, “We have triumphs yet we remain far from our goal of pediatric safety standards – because we know our success is an isolated case amidst thousands of unsafe acts and unhealthy environments children across America are exposed to every day at school.”

### **General discussion followed these briefings:**

Several participants mentioned that the common argument that the 'health risk [caused by given practice] does not outweigh the cost of the safety measures'. They said that school boards are often resistant to new rules and regulations in the absence of data on human harm, and meanwhile, humans are being harmed (particularly children) in the absence of enforced rules. Two additional questions were raised: 1) How can parents get equal time and equal funding to implement alternative approaches to health and safety (i.e.: weeding vs. pesticide use for pest control)?; and 2) How can a centralized (parent-approved) list of chemicals acceptable for use in schools (cleaning products, pest control, art supplies, science labs, etc.) be established?

The discussion also highlighted that chemicals and pesticides can be dangerous in more ways than just by influencing IAQ. Chemicals can enter our body by absorption through skin, by ingesting dust while touching our mouth or eating in the vicinity of chemicals and through injection (being poked, scraped or hurt in any other way by an object contaminated with chemicals). Toxic dusts are also carried home on clothes and shoes. For these reasons, it is important to expand the discussion to general environmental health and safety issues, that include not only IAQ, but these other concerns.

### **Summary of recommendations from small groups regarding next steps:**

#### ***Funding***

Develop financial resources dedicated to environmental health in schools, including new Federal funding and state Public Health Improvement funds with contract language at D4 stage. (This should include targeted support for HVACs, carpet replacement, duct and coil-cleanings, asbestos abatement, new roofs, filter and gasket upgrades.)

#### ***Comprehensive Assessments and On-going Monitoring***

Undertake comprehensive assessments of schools, using a proactive plan review, by local health, environmental engineers, etc. in concert with the school district and funders by a variety of sources, including the Department of Health, Local Health departments, School districts and OSPI. (For example, this should include an Indoor Air Quality walk through in every school and gear to do this including CO<sub>2</sub> and moisture meters as well as particulate counters that are owned centrally and loaned locally.) These assessments should include annual reevaluation of inventories and a top to bottom review of products sold to schools. Furthermore, there should be ongoing monitoring required of all environmental health concerns in classrooms, science labs, art studios, etc.

### ***Environmental Health and Safety Committees***

Require the establishment of Environmental Health and Safety Committees at every school. Washington State Department of Health could provide support for these groups (leveraging pt: this could save significant insurance money in school districts)

### ***Better Regulations***

Push for better regulations on pesticides, building materials, siting issues, etc. Example: Change low-bidding law for construction and design and create database of contractors, engineers, architects on their performance. Another example is to push for notification to parents regarding pesticide use.

### ***Community-based Network***

Build a network of parents, community groups, PTAs, etc to put pressure on legislators and administrators to establish and implement safe guidelines and regulations.

### ***Centralized Communication, Clearinghouse, and Steering Committee***

Create a central database, contact list and best practices that would be easily accessible. Establish ongoing committee to serve as environmental health clearinghouse to address issues as they arise using the available expertise of many disciplines represented at the Healthy Schools Roundtable and to catalyze the development of a comprehensive plan. And promote resource sharing between diverse groups, agencies, etc. (Institute for Children's Environmental Health to foster this?)

### ***Trainings***

Require trainings for health environmental specialists who could then train local school maintenance staff, school administrators, health professionals working in schools, etc. Trainings should cover everything from Indoor Air Quality to Integrated Pest Management as well as how to save money by reducing waste and restructuring purchasing practices. Training films could be developed using local parents and their local experiences, plus key technical experts. Help increase the numbers of professional architects and builders dedicated to using healthy building practices (including certification).

### ***Exemplary Schools***

Create and highlight exemplary “green” schools (including model IAQ and IPM protocols, etc) and track results on learning scores of kids (examples: Oregon superintendent of schools in Beaverton and other locations--also, in Minnesota)

### ***Next Steps***

Elise Miller will organize a conference call in April to debrief and determine priorities for an ongoing working group. Pam Emerson and Elise Miller will be co-sponsoring another Healthy Schools Roundtable in Portland in June, 2001.

## **Additional Existing Resources**

### ***Information on Websites***

American Lung Association of Washington - [www.alaw.org](http://www.alaw.org) :

- Asthma Management in education settings
- Open Airway for Schools - teaching 4 -6 graders asthma management
- A is for Asthma - Pre K & Kindergarten asthma management program

Washington State DOH-OSPI K-12 Health & Safety Guide:

<http://www.k12.wa.us/facilities/healthsafetyguide.asp>

Washington State DOH-OSPI School Indoor Air Quality best management practices manual: <http://www.doh.wa.gov/ehp/ts/iaq.pdf>

Healthy Schools Network, Inc. for comprehensive fact sheets, model legislation, etc. - [www.healthyschools.org](http://www.healthyschools.org)

Poisoned Schools - report from the Center for Health, Environment, and Justice on siting issues and pesticide use in schools: [www.chej.org](http://www.chej.org)

National Coalition Against Misuse of Pesticides - [www.beyondpesticides.org](http://www.beyondpesticides.org)

Washington Toxics Coalition [www.watoxics.org](http://www.watoxics.org) :

- fact sheets on cleaning products and pesticide use
- model Integrated Pest Management policy
- Weed Wars - overview of pesticides use in WA schools
- Purchasing Environmentally Preferable Cleaning Products - a review of models

Tools for Schools and Student Performance and IAQ - EPA document – [www.epa.gov](http://www.epa.gov)

Minnesota Sustainable Design Guide: [www.sustainabledesignguide.umn.edu](http://www.sustainabledesignguide.umn.edu)

### ***Other Guides and Materials***

*Artist Beware* - book on art products in schools - Michael McCann

*The Artist's Complete Health & Safety Guide* - Monona Rossol

Canadian Mortgage & Housing Corporation - many indoor air quality publications and ongoing research protocols on same topic

*The Healthy School Handbook* – National Education Association published, 1995 - Norma Miller, editor

*Is This Your Child's School? Schools and Homes that are Making your Children Sick* - Doris Rapp, MD

*Living With Multiple Chemical Sensitivities: Narratives of Coping* - Gail McCormick

*Pesticides in the Diets of Infants & Children* - National Academy of Science publication, 1993)

Seattle School District ( 206-252-0527 ):

- list of resources on hazardous waste
- list of 'problem chemicals' divided by category

Washington Education Association Indoor Air Quality materials

*Yes! A Journal of Positive Futures* - magazine from Bainbridge Island  
(206) 842-0216 fax (206) 842-5208 - Issue Summer 1998 "A Non-Toxic Future"