
Facilities for Special Education: Learning the Harder Way

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Healthy Schools Network

Founded in 1995, HSN's mission is to assure every child and school employee an environmentally safe and healthy learning environment—through research and data analysis, information and referral, advocacy, and coalition-building. HSN coordinates the national ad hoc Coalition for Healthier Schools, and with its partners, developed state and national policies, regulations, and funding for school facility environments; it has also won national recognition for its model prevention program that works primarily with health-affected school users, a program now being replicated in states across the country. At its core, HSN addresses two crucial issues: securing environmental protections in the design and operations of children's "workplaces"—schools; and developing new systems that address child environmental health in regulated environments. HSN's [Healthy Schools/Healthy Kids Clearinghouse](#) has provided direct assistance to parents, personnel, and schools in nearly every state, helping some schools to win EPA awards, and helping local advocates establish new priorities.

Are Children with Special Needs at Greater Risk?

[Facilities for Special Education: Learning the Harder Way](#) raises questions about what we think we know and the new systems that need to be in place to ensure that every child has an environmentally safe and healthy "workplace"—a school that is clean and in good repair. Like Vermont's Green Mountains or the High Peaks of the Adirondack Mountains in northern New York State that lack the buffering capacity to offset their disproportional exposures to acid rain, do students in special education have the buffering capacity to offset the effects of poor environmental conditions at school, and/or do they have disproportional exposures to toxics in the school environment? That is, are environmental conditions and toxics making education even harder and making optimizing health harder yet for students with special needs? A few cases will illustrate the complex issues of students and school environmental exposures:

A distraught father of a student with multiple disabilities in a 12-month program called HSN to learn why his son's health was failing. The father visited the summer school site, only to see barrels of construction chemicals filling the halls along with demolition dust and fumes hanging

in the air. The school was under total renovation. All students and staff were daily exposed to multiple pollutants.

Miriam, the grandmother of a wheelchair-bound student in special education at one of New York City's Schools of Ground Zero, helped evacuate students on September 11, 2001. Because of the fumes and particulates in the air, school personnel and many students who returned to the facility became ill. While personnel took their cause to city and federal agencies, no agency protected students. Indeed, Miriam chose not to advocate: she feared losing her grandson's placement and losing her own job at the same school which allowed her to provide the daily personal care the city schools could not guarantee.

The director of a new special education pre-school called HSN to find out how to force carpet cleaning. But the story was more complex. After years of advocacy, she had won a pre-K classroom in a local school, only to find it was the worst room in the most decayed wing of a pest-infested building. Animal urine dripped from the moldy ceiling tiles. When asked about the children's health, she said they arrive with so many health problems, it is hard to know if they are getting worse. Advocating for a healthy, cleaner classroom could result in putting the pre-K children back onto diesel buses for a two hour ride to a regional special education facility, or possibly losing her job.

How Safe Are Our Schools?

More than a third of America's public schools need major repairs or total replacement according to a state-by-state study published in 2000 by the National Education Association. In addition, 26 percent of schools reported ventilation as unsatisfactory, 20 percent reported poor heating, indoor air quality, acoustics, noise control, and physical security, and 12 percent reported unsatisfactory lighting conditions in another nationwide survey. A 1995 U.S. GAO study benchmarked conditions in all the states. EPA considers indoor air pollution a top human health hazard since indoor air is 5 to 100 more polluted than outdoor air.

While schools are locally operated and regulated, they are truly our children's workplaces. Generally at least four times more densely occupied than adult commercial office spaces, these workplaces have a profound and far-reaching impact: there are over 50 million children currently enrolled in our schools, spending as many as 40 or more hours each week in school facilities—and an estimated 30 percent of all school children—17 million in all, or more than the population of all but a few states—are in schools that daily erode health and learning. Asthma accounts for an estimated 10 million missed school days. One-third of Washington, DC teachers surveyed recently reported missing school due to facility impacts on their health. Asthma is a common occupational hazard for school personnel.

Children suffer from a wide range of health and behavioral effects linked to these poor school environments, and specifically to environmental pollutants—including asthma, nausea, dizziness, vision and perceptual problems, learning disabilities, irritability, developmental delays, and such long-term illnesses as leukemia and cancer. (Institute of Medicine of the National Academy of Sciences; American Academy of Pediatrics; U.S. Environmental Protection Agency - Status of Children Report 2003.)

These conditions also affect the well being of teachers and other school personnel. Unlike children, however, school personnel can turn to their unions, invoke OSHA in 26 states, and everywhere look to bargaining contracts on their behalf. The National Institutes of Occupational Safety and Health can study the health and exposures of 5 million adults who work in schools; by contrast, for students, no comparable system of research, standards, or protection exists.

Children Are Especially Vulnerable

The lack of protection for children is even more worrisome in light of their special vulnerability to environmental health hazards. Children are particularly at risk because: (1) their bodies are still developing; (2) they proportionately eat, drink, and breathe more per pound of body weight than adults; (3) they are exposed to more environmental threats; and (4) they are less able to protect themselves from hazards. (U.S. EPA; American Academy of Pediatrics; National Academy of Sciences.) The chart below is adapted from Agency for Toxic Substances and Disease Registry (ATSDR).

WHAT ARE THE VULNERABILITIES OF SCHOOL AGE CHILDREN?

AGE	DEVELOPING SYSTEMS	WHAT TO LOOK FOR
Young child (2-6 yrs)	Brain, lungs, small intestines, Immature detox capacity	Pesticides, floor level air pollutants, lead, mercury, allergens
School age (6-12 yrs)	Brain, lungs	Air pollutants, arts & crafts, pesticides
Adolescent	Brain, lungs, rapid growth sexual maturation	Occupational hazards, drug abuse, air pollutants, arts & crafts, trade school hazards, pesticides

For a more detailed discussion of school environmental hazards, we recommend "Learning the Hard Way," Environmental Health Perspectives, June 2002. When considering the questions below, keep in mind that no state has a student illness or injury reporting system; there is no baseline data on the health of any set of students.

National Efforts to Improve School Safety

Recognizing the crisis at hand, Congress passed the federal “healthy and high performance schools” (HHPS) provisions of Leave No Child Behind Act of 2001 that requires the U.S. Department of Education to conduct a study on the impacts of decayed schools on child health and learning, and report to Congress by July 2003. The education department engaged an outside consultant to scope out a larger study in cooperation with U.S. Environmental Protection Agency and Centers for Disease Control and Prevention, but has provided no report to date (July 1, 2003).

Another feature of HHPS authorized the department, in consultation with EPA and U.S. Department of Energy, to set up grants to the states for creating their own local HHPS programs. Healthy and High Performance school facilities can be described as “green buildings for kids,” that is, facilities with environment and health attributes such as superior air quality and energy efficiency. Healthier schools improve occupant health and productivity, and can elevate test scores. Congress did not fund this initiative, but Congressional action has motivated U.S. EPA, CDC, and other federal agencies to set up a federal inter-agency committee on school environments. The first step was undertaken by U.S. EPA which formed a school environments work group in October 2001. The work group's recommendations are now reshaping EPA's work on schools and with the states.

One finding of the EPA work group was that school administrators and officials have no training or background in environmental health issues, and since there is no public system to track or provide oversight of these issues locally or nationally, identifying problems where they exist and targeting them for remedial action is impeded. Another finding is that EPA should evaluate its voluntary programs for schools based on child health and learning measures, and should work more closely with the state agencies to ensure that EPA's programs support and enhance state efforts.

Stressing the need for child health protection at school, the U.S. Senate Committee on Environment and Public Works held a hearing on school environments on October 1, 2002 chaired then by Vermont's Senator Jim Jeffords who has since issued a report to Congress urging action on HHPS, setting standards for school air quality, and other measures.

Questions for Wingspread Discussion

1. What are the environmental characteristics of facilities and instructional materials used by students in special education? How much time, by hour and in years, do students in special education spend in school facilities and on buses?
2. What do we know about the biological effects of pollutants and toxic chemicals on children 0-18 years old who are developmentally delayed from

birth, or who later acquire developmental disabilities? Are they more susceptible to environmental conditions and toxicants?

3. What do we know about the behavior characteristics of individuals with mental retardation? Are they are greater risk for exposures to toxicants?
4. What do we know about the discrete learning problems of individuals with mental retardation: do they have a greater or lesser need for specific facility environmental standards in acoustics, lighting, air quality, heat or humidity?
5. What do we know about the specific health care or health support needs of individuals with mental retardation? How do these needs affect the characteristics of school facilities?
6. Should the IDEA referral and assessment process incorporate a new environmental health evaluation and recommendation for individual education plans and placements?
7. How should the identified environmental protection needs of students in special education be incorporated into school building construction guidelines or codes?
8. What federal and state agencies should assure a student and parent/guardian right to know about school environmental health hazards, in what form, and what agency should be authorized to intervene on behalf of health-affected individuals? What recourse should students or parents/guardians have to illness or injury at school?