# The State of Environmental Health in Southwestern Pennsylvania Schools









A summary report by Healthy Schools PA, a program of Women for a Healthy Environment **September 2018** 

CO-AUTHORS: Michele Buford, MEd Chelsea Holmes, MS Hawa Mariko, MPH Molly Mehling, PhD Michelle Naccarati-Chapkis

REVIEWERS: Norman Anderson, MS Robert J. Kobet, AIA

EDITOR: Lynne Glover





# **Executive Summary**

A healthy school is one that is free of environmental hazards and fosters healthy learning. Children spend an average of 1,000 hours in the classroom each school year—where they can be exposed to environmental hazards, such as poor air quality, lead, radon, toxic building materials and pesticides. We must ensure that the time spent in school is free from exposures that could negatively impact children's health.

In order to gain a better understanding of environmental health hazards potentially facing the more than 330,000 children enrolled in public school districts across southwestern Pennsylvania, Healthy Schools PA— a program of Women for a Healthy Environment—requested information during the 2016-17 school year, via a Right-to-Know request, from 129 public school districts located in the 10-county region. All told, 72 percent responded partially or fully to the Right-to-Know request.

The main goal of *The State of Environmental Health in Southwestern Pennsylvania Schools* was to request information in a consistent manner to assess the types of environmental testing being completed in public schools; and then examine the levels at which these schools are taking action through practice or policy in addressing potential environmental hazards.

Specifically, information was requested of public school districts for a 10-year period, 2006 to 2016. Lab reports and answers to 13 questions were obtained concerning radon, water and lead testing, indoor air quality, artificial playing surfaces, cleaning products, construction and renovation projects, asthma rates, antiidling signage, pest management and polychlorinated biphenyls. During the 2017-18 school year, data from public school districts in the following counties was compiled and analyzed: Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington and Westmoreland.

The creation—and sustaining—of healthy schools is a public health issue and demands the involvement and attention of the entire community, including school personnel, parents, local, state and federal officials, as well as elected leaders. Ultimately, the findings in this report will be used to help assess funding needs to address these particular hazards in school buildings, while identifying key opportunities for additional technical assistance and policy change necessary to protect the health of school students in the region.

## **Key Findings**

The results indicate that potential environmental hazards exist in school districts throughout southwestern Pennsylvania. Here are the key findings from the school districts that responded to the Right-To-Know request:



**44%** did not answer whether they tested the school's **water supply for lead** or other contaminants or said no reports were available. **Six** school districts relied on the local water authority's reports as opposed to testing the schools' water themselves. **49%** indicated

that they tested the school's **water supply**, while **25%** tested for **lead**. Note: Healthy Schools PA firmly advocates that no amount of lead exposure is safe.



**22%** of the school districts indicated that they conducted **lead testing for paint.** 



Collectively in the study, **four of the 10 counties** in southwestern Pennsylvania are **above the state asthma rate** of **10.2%**. Asthma rates in **22** school districts **exceed the state average**.



Air quality testing was completed in 58% of the school districts (though many provided results for only one or two schools), while Indoor Air Quality Management Plans exist in 28% of the districts.



School districts use an average of **25** different **cleaning products**, while **14%** report using at least one type of **environmentally friendly cleaning product**.



**54%** of school districts reported that they do not have any **anti-idling signage**, as required by state law, at the time of the RTK request (the RTK request may have spurred at least two districts to order signs).



**34%** of the districts **tested for mold** in at least one of their school buildings, frequently as a result of a health complaint submitted to school administrators.



Testing for **polychlorinated biphenyls** (PCBs) was completed in **6%** of the school districts.



**78%** of the school districts reported at least one **pest management contractor**; a more thorough analysis is needed to investigate whether integrated pest management practices are being followed, as required by state law.



Radon testing was completed in
31% of the school districts, with 28% of those reporting radon overages above the acceptable limit.



On average, school districts have one synthetic field; studies have shown that known toxic substances are present in synthetic turf and comprehensive safety studies are needed.



The **average school building** was built in **1952**, with the **oldest** one in the study built in **1879**. During the study period, the largest federal funding increase for **school improvement projects** was in **2009**; the renovation projects in the RTK request reflect this escalation in available funding.

#### **Healthy Schools PA Recommendations**

Forming wellness committees and/or green and healthy school initiatives are among the best ways to create an integrated approach to environmental health in schools. This requires the involvement of the community—from school administrators, teachers, and parent groups, to transportation providers, custodial workers and contractors. Together, a well-formulated, comprehensive plan can be developed, implemented and reviewed annually.

There are many things a school district can do to create a healthy learning environment. This investment in the health of its occupants—our children—will ultimately lead to decreased absenteeism among students and staff, higher academic performance and provide an overall long-term return on investment.

To be sure, some of the serious health effects created by environmental hazards in schools can have life-long consequences, while others may be short-term. By taking pre-emptive measures, some health effects, such as lead poisoning (known to cause behavior and/or learning problems in children) and radon exposure (the second-leading cause of lung cancer deaths) can be preventable. Making smart environmental decisions and investments in school districts will protect the people they are meant to serve.

- Follow the EPA's "3Ts" toolkit to identify whether lead is present in drinking water.
- Use filtered water stations for drinking; install and maintain filters at cafeteria faucets used in food preparation; and remove access to fountains and classroom sinks that contain lead components.
- Daily cleaning to keep dust level to a minimum and regular inspections for chipped/peeling paint can reduce exposure to lead.
- Follow EPA's Lead Renovation, Repair and Painting Rule; use certified renovators for schools built before 1978.
- Adopt and follow an Indoor Air Quality Management Plan and become an "Asthma-Friendly School."
- Conduct a "checklist" in schools to identify cleaning products currently being used; identify safe alternatives by purchasing third-party certified green cleaning products.

- Work with wellness committees, Parent Teacher Associations (or similar groups), and school administrators to create an idle reduction policy. Install "idle-free zone" signage at student drop-off and pick-up locations.
- Replace old lighting systems manufactured with PCBs with energy-efficient systems and reduce the potential for PCBs in indoor air by maintaining a proper ventilation system.
- Educate staff by accessing Integrated Pest Management for Pennsylvania Schools: A How-To Manual.
- Test for radon using a certified individual or firm.
- Until national research studies currently underway determine whether using synthetic turfs are safe, opt for natural grass fields.
- During construction and renovation projects, adopt Strategies and Processes for Materials Selection and Techniques for Protecting Occupants from Renovation Pollutants, as recommended by the EPA.

### **Call to Action**

Just as the Pennsylvania Auditor General added safety components to school district audits in 2006, it makes sense that the environmental health of the public school buildings where 1.7 million children are enrolled is also routinely evaluated and reported upon. Here are practical steps that individuals and communities are encouraged to take in an effort to create healthier schools for our children:

- Engage with Women for a Healthy Environment's Healthy Schools PA Program and find incremental steps that can be taken to improve a school district's environmental health.
- Urge federal and state elected officials and agency leaders to prioritize funding for schools that invests in infrastructure and advances environmental health strategies.
- Advocate at the state level for long-term lead testing and more stringent requirements for schools, recognizing lead testing in drinking water became required in July 2018. In addition, insist on regulations requiring radon testing in all schools, as well as the use of third-party certified cleaning products.
- Participate in the "1,000 Hours a Year" program by applying for mini-grants to test for lead and radon in schools.

Together, we can help the region's children thrive and learn to their fullest potential in a healthy, toxic-free learning environment.





5877 Commerce Street Pittsburgh, PA 15206 412-404-2872 info@HealthySchoolsPA.org