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Tackling the Lack of School-Based Lead Testing

By Joseph Hedger

When EPA and Virginia Tech scientists found toxic levels of lead in the drinking water in Flint, Michigan, in 2015, the city's public schools struggled to address the risk to student health. "We couldn't tell parents that we can test their child's water," said Pamela Pugh, a Michigan State Board of Education member who also serves as chief public health advisor for the city. "We couldn't tell them that the schools who don't have adequate teachers are going to now have an adequate number of maintenance workers to test their water."

Despite the national attention Flint received, little has changed in requirements for lead testing in Michigan schools, Pugh said. Nor is Michigan alone. No federal law requires the testing of drinking water for lead in schools that receive water from public water systems, according to a 2018 report from the U.S. Government Accountability Office (GAO) on lead in school drinking water.[1] GAO asked a random national sampling of school districts in 2017 whether they had tested for lead in water in the preceding 12 months. GAO followed up in 2019 with a report on school districts' efforts to address lead-based paint in schools.[2] Both reports revealed a dearth of lead testing in water or paint in school buildings and problems with lead in schools that had tested for it.

Elevated blood lead levels in children—even at very low levels—contribute to learning deficits and behavioral and attentional problems.[3] There is no safe level of lead for children, particularly those six years old and younger. A Rhode Island study from 2018 links disparities in third-grade test scores to low levels of lead exposure in preschool-aged children, particularly among low-income and African American children. The study goes on to show how a one-unit decrease in average blood lead levels reduces the probability of scoring substantially below proficient in reading and math.[4]

Nationally, 44 states have adopted laws addressing lead hazards broadly.[5] But NASBE's State Policy Database on School Health shows only 13 states including the District of Columbia that require school-based testing of lead in drinking water.[6] None requires the testing of lead-based paint in all public schools, though policy varies on state action to prevent lead poisoning through exposure to paint in older buildings.

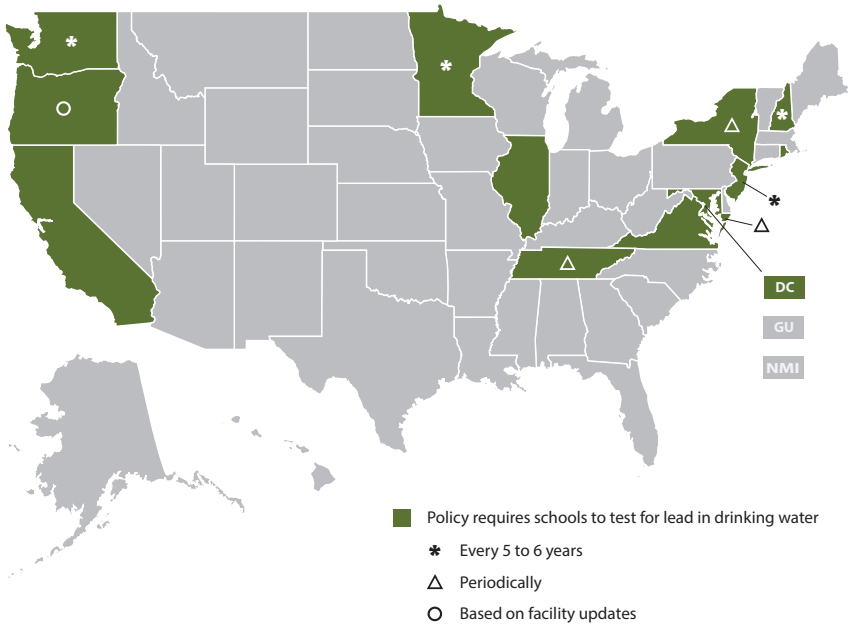
TESTING DRINKING WATER SYSTEMS

In 2016–17, an estimated 41 percent of school districts (serving 12 million students nationwide) had not tested for lead in school drinking water. Of the 43 percent of school districts (serving 35 million students) that did report on such testing, 37 percent found lead at levels above their selected threshold for taking remedial action.[7] While the EPA's Safe Drinking Water Act of 1974 prohibits the use of pipes or plumbing fixtures in facilities providing public drinking water that are not lead free,[8] federal regulation does not ensure that public schools, especially older schools, receive appropriate water testing to ensure that no student faces exposure.

According to NASBE's State Policy Database on School Health, 24 states require districts to address water quality in schools. However, only 13 states explicitly require districts or schools to monitor or test for lead in drinking water. Of these, four require school districts to test every five or six years, three require "periodic" testing, one requires testing whenever they conduct construction or maintenance projects, and five do not specify ongoing testing or only require it once (see map).

John Rumpler and Emma Dietz of the Environment America Research & Policy Center suggest actions to protect students

13 States Whose Policies Call for Testing Lead in Drinking Water



from lead exposure: installing and maintaining lead-removal filters on water sources, disclosing all available information about lead in water test results and remediation plans onsite and online, and requiring annual testing at all water outlets.[9]

Yet in most states, schools or school districts are at least partially responsible for the cost of testing and remediation. When implementing a state testing and remediation program, states must ensure that compliance is achievable with limited resources by a legislated deadline and that relevant state agencies are coordinating efforts.[10]

State policy should specify the levels of lead in public drinking water that will require remediation. "We talk about 15 parts per billion [in maximum acceptable lead levels], 12 parts per billion—we really should have zero parts per billion of lead in water," Pugh said. State boards need to also consider school water fixtures and piping, Pugh said, noting there were issues with disinfectants in water lines. "We need to know not just what's coming out from the distribution centers," she said, "but what's coming out of the tap."

REDUCING LEAD-BASED PAINT EXPOSURE

While the consumer use of lead-based paint was banned in the United States over 40 years ago, problems with lead-based paint in schools persist.[11] Lead in old paint and contaminated dust, especially in older homes and buildings, is the leading cause of elevated blood lead levels in children.[12] In 2016–17, an estimated 12 percent of school districts inspected for lead-based paint, and lead was found in about half of those school districts. While every school district that tested positively reported remediating the issue or planning to do so, three quarters of districts (serving approximately 22.4 million students) had not inspected paint.[13]

"The U.S. school building infrastructure is on average 50 to 60 years old," said Erika Eitland, program leader for Schools For Health. "Therefore, it predates many of the important environmental regulations, including the removal of lead from paint." The main issue, she stated, is that there is not enough funding to remediate the problem in all schools.

And there are many other environment issues that schools contend with: poor ventilation, air quality, thermal health, moisture, dusts and pests, and safety and security. "Properly designed, maintained, and operated school buildings that address these environmental factors have been shown to prevent cognitive deficits, optimize student and teacher performance, and create a thriving learning environment within the school," wrote Eitland and coauthor Joseph Allen in a recent report.[14]

Four states' policies or regulations mention exposure to lead-based paint:[15]

- In Maine, the Bureau of General Services' Division of Safety and Environmental Services is required to provide asbestos, lead, and indoor air quality assessment and mitigation oversight services for public schools and state facilities.
- Under Minnesota statutes, to qualify for long-term facilities maintenance revenue, a school district must have a 10-year facility plan adopted by the school board and approved by the commissioner that includes provisions on complying with health, safety, and environmental regulations and best practices, including air quality management and remediation of lead hazards.
- The Oregon State Board of Education requires school districts to create Healthy and Safe School Plans, which must include a plan to reduce exposure to lead paint that includes compliance with the EPA's Renovation, Repair, and Painting Rule.
- West Virginia's Policy 6200, "Handbook on Planning School Facilities," calls for monitoring, maintenance, and a risk assessment in buildings built before 1978 where a child age six or younger is located for at least three hours per day twice a week.

CONCLUSION

State boards looking to take preventative and active measures on lead in water or paint should ask the following:

- Have your school districts' water systems ever been tested?
- What type of routine testing do you plan?
- Who can do monitoring and maintenance?
- How can you advocate for allocation of funding to make sure the school's environment is conducive to learning and that it is not producing learning disabilities in children?

Children require healthy and safe learning environments to succeed in schools, and as long as classrooms and school buildings go untested for lead, public school students remain at risk.

Joseph Hedger is NASBE's associate editor.

NOTES

1 U.S. Government Accountability Office, "Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance," GAO-18-382 (Washington, DC: GAO, July 2018).

2 U.S. Government Accountability Office, "School Districts' Efforts to Address Lead-Based Paint," GAO-19-461R (Washington, DC: GAO, July 2019).

3 Healthy Schools Network et al., "Eliminating Lead Risks in Schools and Child Care Facilities: A United and Urgent Call to Action for Children," collaborative workshop report (Washington, DC: The Pew Charitable Trusts, 2018).

4 Anna Aizer et al., "Do Low Levels of Blood Lead Reduce Children's Future Test Scores?" *American Economic Journal: Applied Economics* 10, no. 1 (2018): 1–36.

5 National Conference of State Legislatures, "Lead Hazards Project," web page (Denver: NCSL, November 2017), http://www.ncsl.org/research/environment-and-natural-resources/lead-hazards-project.aspx#2.

6 Additional data gathered from author's research and Ajay Kunapuli et al., "Perspectives on State Legislation Concerning Lead Testing in School Drinking Water" (Washington, DC: U.S. Green Building Council, 2018), https://www.usgbc.org/sites/default/files/2018-Lead-in-School-Drinking-Water-Full-Final-20181108_0.pdf.

7 GAO, "Lead Testing of School Drinking Water."

8 Mary Tiemann, "Safe Drinking Water Act: A Summary of the Act and Its Major Requirements" (Washington, DC: Congressional Research Service, March 2017).

9 John Rumpler and Emma Dietz, "Get the Lead Out: Ensuring Safe Drinking Water for Our Children at School" (Denver, CO: Environment America, March 2019).

10 GAO, "Lead Testing of School Drinking Water."

11 In 1978, the Consumer Product Safety Commission banned lead-containing paint in 42 Fed. Reg. 44,193 (September 1, 1977).

12 Healthy Schools Network et al., "Eliminating Lead Risks."

13 GAO, "Efforts to Address Lead-Based Paint."

14 Erika Eitland and Joseph Allen, "School Buildings: The Foundation for Student Health and Success," *State Education Standard* 19, no. 1 (2019), http://www.nasbe.org/our-resources/publications/the-state-education-standard/.

15 State Policy Database, "Physical Environment," web page (Alexandria, VA: NASBE), https://statepolicies.nasbe.org/health.

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