Introduction

Reports of lead contamination in drinking water have emerged in schools and communities across the country. Drinking water is important for proper hydration and oral health and can serve as a substitute for sugary drinks in order to help children grow up at a healthy weight. But water must be safe to drink.

This Research Brief summarizes select characteristics of state-level policies and programs established in 24 states and the District of Columbia (25 states) to conduct testing for lead in school drinking water (see Figure 1). It is based on a study from the Harvard T. H. Chan School of Public Health and the Nutrition Policy Institute at the University of California. The study examined water testing policies and programs that were in operation between January 1, 2016 and February 28, 2018. The full results, study methods, and state profiles are available at: https://www.hsph.harvard.edu/prc/projects/school-research/early-adopters.
Findings

To identify and summarize the features of state policies and programs, researchers conducted online searches using a search engine and scanned state legislative and department websites and existing resources from public health organizations. Researchers communicated with state government agencies to verify their policy or program and to request relevant documents and up-to-date data on water quality test results for lead. They analyzed data from 12 states that provided water testing results or had publicly available data between March and May 2018 (see Figure 2).

This study shows that:

- States lack uniformity in creating and overseeing programs to test for elevated lead in school drinking water.
- State action levels (i.e., the levels of lead found in drinking water samples at which states recommend that action be taken) vary from state to state.
- States do not have uniform protocols for testing school drinking water for lead and for sharing their findings.
- State protocols offer a variety of approaches that schools can take in response to finding lead in tap water.
- There is considerable variation in the ways states maintain data on water quality.

In 12 states, the research team also found that:

- 12 percent of all water samples tested had a lead concentration at or above the state's action level.
- 44 percent of schools tested had one or more water samples with a lead concentration at or above the state's action level.
- Schools that collected and tested water from a greater number of taps were also more likely to identify a sample with elevated lead concentrations.
- Use of lower action levels by a state program would increase the proportion of schools that would need to take steps to address the content of lead in the drinking water.

Policy and Practice Implications

- Standardized practices for school tap water sampling for lead, along with financial and technical assistance for both testing and remediation, could support more states in adopting effective practices to limit lead exposure in school drinking water.
- Up-to-date electronic data management guidance could standardize practices for data collection, database development, and reporting, which could improve timely identification of elevated lead levels in school tap water and limit exposure to lead.
- Federal and state agencies must ensure that all children have easy and appealing access to safe school drinking water and support the promotion of drinking water as a healthy beverage of choice.
Conclusion

Some states are newly adopting and modifying policies and programs for testing lead in school drinking water. Over the project period, four of the 25 states made modifications to their water testing programs. Since March 1, 2018, at least two additional states have adopted a policy or program to test for lead in school drinking water.

However, further research is needed to determine a health-based standard for regulating lead concentration in school drinking water. There is also a need to study the optimal approaches for initial assessment and ongoing monitoring of lead content in school drinking water in a way that is most protective of children’s health. Such research could also identify effective and economical remediation strategies for reducing lead – and the likelihood of lead – in school drinking water.

Suggested Citation


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