

A report commissioned by the W.K. Kellogg Foundation and prepared by the Horsley Witten Group

### As school and childcare administrators, teachers, parents and community partners, we want to ensure children have access to lead-free drinking water.

Despite progress to reduce children’s lead exposure through federal policies and new practices, lead levels in water remain a problem, particularly in low-income communities and communities of color.

This toolkit will help you determine if this is a problem in your community. Follow these simple steps to find out if lead testing is necessary and how to take corrective actions.



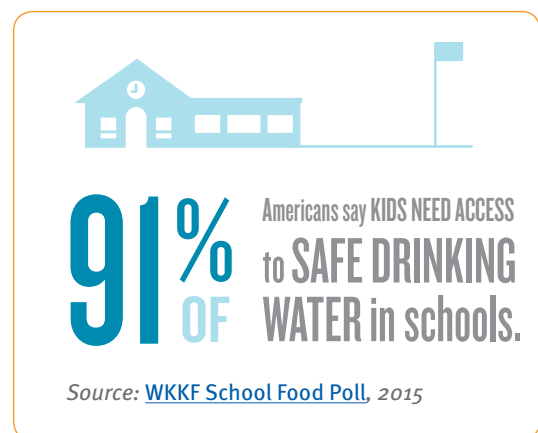
DOWNLOAD REPORT

The information in this toolkit is based on the “Managing Lead in Drinking Water at Schools and Early Childhood Education Facilities” report.



### WHY THIS MATTERS

**Children need clean, drinkable water to nourish and support their growing bodies.** Children spend much of their day at school or at early childhood education (ECE) facilities, so it’s important to make sure the drinking water at these facilities is safe and free from lead contamination. The W.K. Kellogg Foundation’s (WKKF) [school food poll](#) shows broad support for kids’ access to safe drinking water in schools and childcare settings, and that drinking water is a high priority for improving the health and well-being of students.



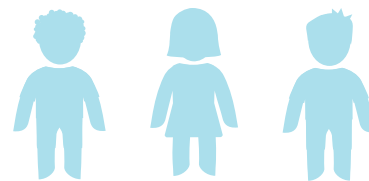
**Young children and infants are particularly susceptible to lead.** Childhood lead exposure can impair physical and mental development and have lifelong health impacts. It is linked to lower IQ levels, behavioral problems and learning disabilities. The Centers for Disease Control and Prevention (CDC) estimates about half-a-million U.S. children, ages 1 to 5 years, have above five micrograms of lead per deciliter in their blood – but, there is no safe blood lead level (BLL).

**Lead contamination in drinking water remains a health concern, particularly in low-income neighborhoods and communities of color.** According to the CDC, black children ages 1 to 5 have nearly three times higher blood lead levels than white children. Low-income children have more than twice the blood lead levels than median to higher income children.

**Lead contamination can occur from a school or ECE facility's plumbing, even when public water supplies are deemed safe.** In individual facilities, older water pipes, taps, solder and other plumbing components can leach lead into drinking water. The longer water sits in the plumbing, the higher the risk of contamination.

**Schools and ECE facilities can take steps to test their water and address contamination, if it's present.** Public water utilities and community organizations can partner with schools and ECE facilities to ensure children's drinking water is safe.

## LEAD POISONING IN CHILDREN



**3x HIGHER** among  
**BLACK CHILDREN**

**2x HIGHER** among  
**LOW-INCOME CHILDREN**

**as measured by blood lead levels**

Source: CDC

### Policy History

**1974:** *The Safe Drinking Water Act (SDWA) passes with the aim to protect public health through regulating the nation's water, including for lead contamination.*

**1986:** *SWDA Lead Ban requires the use of lead-free pipe, solder and flux in the installation or repair of any plumbing in any facility used for drinking water.*

**1988:** *Lead Contamination Control Act passes, reducing overall lead exposure by reducing lead levels in drinking water at schools and childcare centers.*

**1991:** *Lead and Copper Rule passes, requiring public water systems to monitor for lead, and establishing a lead action level.*

**1998:** *Plumbing fixtures without a lead-free designation are banned from sale.*

**2010:** *The Healthy, Hunger-Free Kids Act requires schools to provide access to drinking water where meals are served, but does not require lead testing.*

**2011:** *Reduction in Lead in Drinking Water Act takes effect, and all water systems providing water for human consumption must meet the lead-free requirement.*

### Terms To Know

**µg/dL** – *Micrograms per deciliter, the measurement used when testing for the presence of lead.*

**BLL** – *Blood Lead Level, the measure of lead in people's blood; an elevated BLL is above 5 µg/dL.*

**Lead action level** – *The level of lead, which if exceeded in more than 10 percent of sites, triggers treatment or other actions to reduce exposure. The EPA's recommended lead action level for schools served by a public water system is 20 ppb (µg/L) using a 250-mL first draw sample.*

**PWS** – *Public Water System is a regulatory term referring to certain utilities and organizations providing drinking water for human consumption.*

**Plumbing profile** – *An assessment of the piping, plumbing fittings, solder, fixtures and flux within a facility.*

# 5 STEPS TO PROVIDING LEAD-FREE WATER FOR KIDS

Taking these simple steps will ensure your school's or ECE facility's drinking water is safe for children.

## 1. Assess whether a lead-testing program is necessary.

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Review local health information to see if there are reported elevated *blood lead levels* (BLLs) among people in your community and check your *public water system's* (PWS) annual drinking water quality reports for potential lead contamination issues. Develop a *plumbing profile* of your school or ECE facility. This is an assessment of your facility's plumbing to map and identify potential locations and sources of lead.

## 2. Form a team to manage your program.

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It takes dedicated staff and community partnerships to implement and sustain a drinking water testing and remediation program. Make sure the principal or director is on board. Identify custodial, cafeteria, health care and teaching staff who can help pinpoint commonly-used water faucets and drinking fountains that might be tested. These people also can possibly help in the testing of water, and become allies in communicating program details to children and parents. Seek out community partners too. Your local health department and/or public water utility can help by providing data or identifying potential funding sources for lead testing.

## 3. Prepare for and test the facility's drinking water for lead.

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Review the plumbing profile you have compiled and, with your partners and staff, agree upon a *lead action level*, which is the level at which a school will take remediation steps. The EPA has several useful tools, which can help in guiding this decision. Next, prioritize when and where testing will occur. You also will need to decide which method you would like to use when testing for lead. EPA-certified labs or your local public water utility can serve as a resource for testing.

## 4. Develop and implement a remediation plan.

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If lead is present in your drinking water, you can take steps to remediate it. Addressing water contamination is not one-size-fits all, so it's important schools or ECE facilities develop the best options for their situation. Outline key questions you may have, as well as potential fixes, and the benefits, challenges and considerations of each. Work with your local water agency to help determine corrective actions. Possible solutions may include installing point-of-use devices, flushing affected piping and outlets, replacing drinking fountains, running plastic piping to drinking fountains from water mains and specifying lead-free solder for all new construction.

## 5. Communicate with the community.

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It's essential to inform parents, local officials, organizations and other community stakeholders about lead testing and remediation strategies, ideally before they are reported in the media. You might use this opportunity to educate people about the risks of lead exposure, testing for lead in drinking water and potential remedies. As lead exposure may also occur in the home, it's helpful for people to learn how to safeguard their families.