

# Lead Sampling Program

for Public Schools

July 2018



## END OF PROGRAM

Thank you for your participation in the Indiana Finance Authority's (IFA) Lead Sampling Program for Public Schools. Water sampling for this program has concluded and all results letters have been issued. IFA is still available to answer any remaining questions concerning program test results and remediation efforts. In January of 2019, we will be providing the Indiana legislature with a Lead Sampling Program report and will share this program overview with you as soon as it is publically available.

Our primary goal was to provide you with more information about water quality within your buildings. Based on a preliminary review of the sample results, while the majority of schools in our program (61%) had at least one fixture over the EPA Action Level (15 ppb), only a few fixtures within each building (8% on average) tested above this remediation threshold. These trends are consistent with other statewide school lead sampling programs.

Sources of lead include lead-based paint, dust, soil and water. If parents have concerns about the level of lead their children may have been exposed to, the Indiana State Department of Health encourages them to get their child's blood lead level tested. Children under the age of six are at a higher risk than others. A blood lead test conducted either by the local health department or by a primary care physician is the only way to confirm current exposure levels but will not identify the source of the lead. Additional information about blood lead exposure and risks can be found by contacting your local health department or by checking out the Indiana State Department of Health's Lead and Healthy Homes Division website.

*Erica Walker*

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## PRELIMINARY FINDINGS

*57,000 samples were collected in total*

*915 school buildings were sampled*

*61% of schools had at least 1 fixture over 15 ppb*

*8% of fixtures (or 3-5 fixtures per school) were over 15 ppb on average*

*85% of fixtures over 15 ppb were faucets & bubblers*

*5% of fixtures over 15 ppb were kitchen kettles*

# Lessons Learned & Best Practices

*Ways to promote water quality throughout the school year*

## 1. Flush Fixtures

Many districts observed the importance of water use when infrequently-used fixtures tested high for lead. Stagnant water is more corrosive of lead and can promote bacterial growth. For this reason, schools could consider developing regular flushing programs before the start of each school year and directly following long breaks. Schools can reduce water quality risks by moving fresh water through the building.

## 2. Clean/Replace Aerators & Strainers

Faucet aerators and water cooler strainers can trap leaded-debris and serve as a long term source of lead in schools. Consider cleaning out or replacing these based on the manufacturer's instructions or every 1-2 years.



**Image:** Water cooler strainer clogged with leaded debris (Elfland, 2010)



**Image:** Debris in faucet aerator

## 3. Change Water Filters

Filtered water coolers and bottle fillers need to be periodically serviced. These devices typically have a light indication system to remind users when to replace the filter. Spent filters will no longer remove lead or other contaminants from drinking water, leaving students and staff with a false sense of security. To maximize the benefits of each filter, set internal replacement reminders based on the manufacturer's instructions.

## 4. Investigate Upstream Lead Sources

As some districts discovered during the program, lead sources can be found upstream of school fixtures. Until 2014, brass and bronze materials could contain up to 8% lead. This means any upstream component containing, brass, bronze, or solder may contain lead. Inline brass strainers, booster pumps, backflow preventers, and pressure-reducing valves are a few examples. Schools could consider testing brass, bronze, and soldered plumbing components with lead check swabs when developing plans to update building plumbing. Please contact us if you would like more information about lead check swabs.

## 5. Re-Test Water

Due to the variable nature of lead concentrations in drinking water, schools may want to put together a long-term monitoring plan using the sample plan maps and educational materials provided by this program. Water chemistry, temperature, and varying flow rates can all impact the amount of lead found at fixtures. Schools that do not provide their own drinking water are not currently legally required to test for lead. The following recommendations are purely voluntary and may not meet requirements set forth in future regulations. In determining which fixtures to re-test, we encourage you to review all the sample results for each school.