Funding Michigan's Filter First Bills: The First in the Nation to Provide Safe School Drinking Water

March 12, 2024 Elin Warn Betanzo, Safe Water Engineering

Lead is present in school plumbing, especially in buildings built before 2014

- Plumbing materials (pipes, fittings, and fixtures)
 - up to 8% lead through 2013
 - up to 0.25% lead beginning in 2014
- Lead solder (banned in 1988)
- Galvanized steel pipes
- Lead service lines, lead packed valves
- Plumbing materials not intended for drinking water use
- Pre-1988 drinking water coolers with leadlined tanks

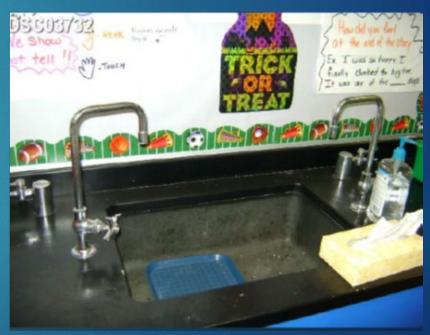


Photo: Birmingham Public Schools

Corrosion Control treatment reduces lead leaching but irregular water use in schools means it doesn't work as intended

2023-2024 Break Schedule

Aug. 28: First Day of school, half day

Sept. 1-4: Labor Day Recess

Nov. 23-24: Thanksgiving Recess

Dec. 22-Jan. 2: Winter Break

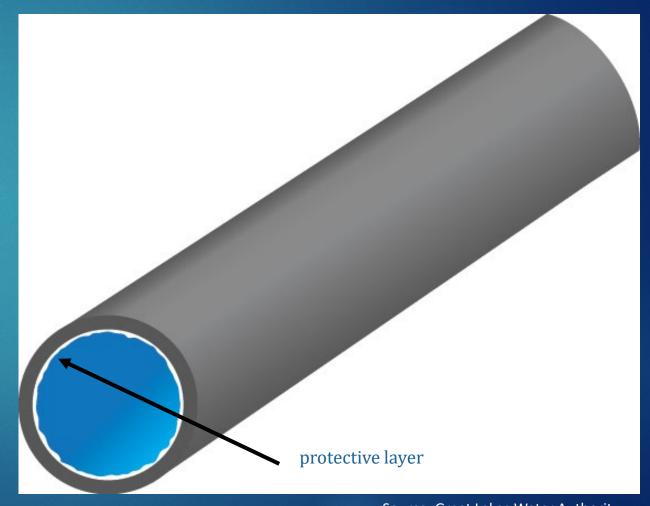
Jan. 15: No School, MLK, Jr. Day

Feb. 19-23: Midwinter Break

March 25-29: **Spring Break**

May 27: No School, Memorial Day

June 6: Last Day of School



Why address lead in school drinking water?

Lead is a potent irreversible neurotoxin

Lifelong multigenerational impacts

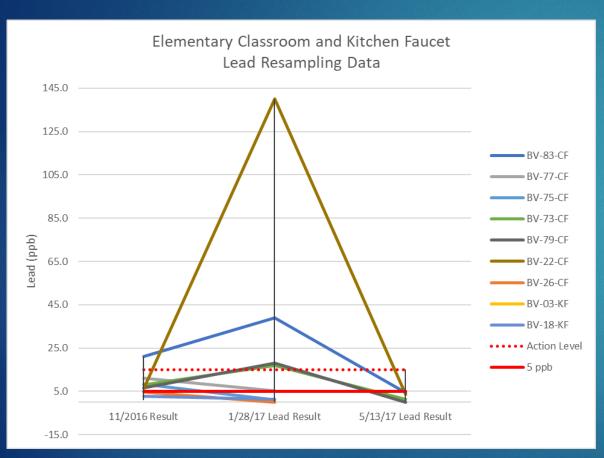
Young children are most vulnerable to lead exposure

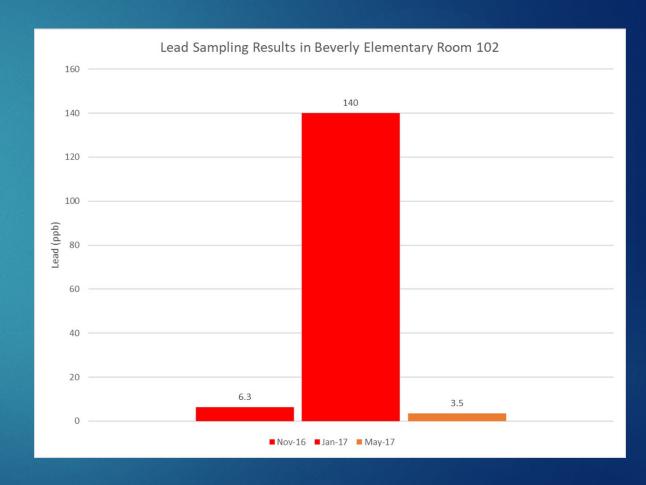
Lead has no useful purpose in the body

Health effects from acute and chronic exposures



Test and Chase approach does not provide safe water





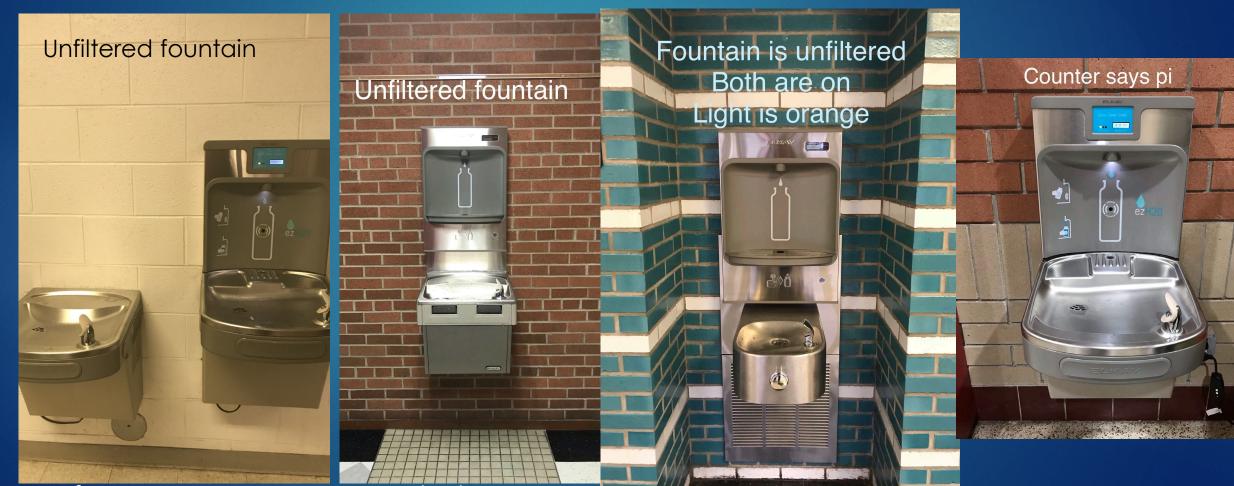
Data from Birmingham Public Schools, 2016-2017

Michigan's Filter First law provides safe drinking water first, then tests to verify filters are working.

- ▶ The bills require:
 - A drinking water safety plan for each school
 - Filter station installation and maintenance on designated drinking water sources
 - Filters certified to meet ANSI/NSF Standards 53 (lead removal) and 42 for particulate removal
 - ▶ Testing once per year after filters are installed
 - Remediation if filtered water still contains lead



Requirements and best practices are needed to ensure filter stations are properly installed and maintained

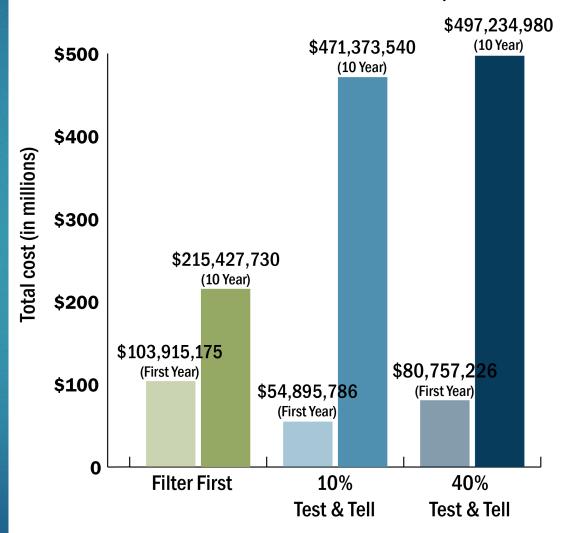


Photos: Safe Water Engineering, 2019-2020 school year

Full Funding is Necessary to Achieve Filter First Requirements in Every School

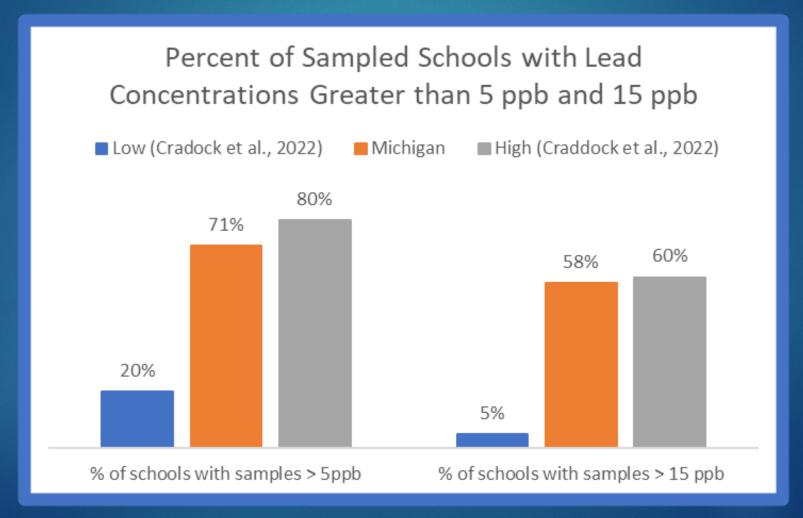
Michigan Projected Costs

Filter First versus Test & Partial Fixture Replacement



Voluntary Michigan School Lead Sampling Data 2020-2022

- 1,967 Michigan schools may have lead > 15 ppb
- 2,414 schools may have lead > 5 ppb
- 3,040 schools may have lead > 1 ppb





All filtered samples collected after installing filter stations in the BPS school district meet the AAP Recommended Action Level of 1 ppb.

There is no detectable lead in any of the samples.