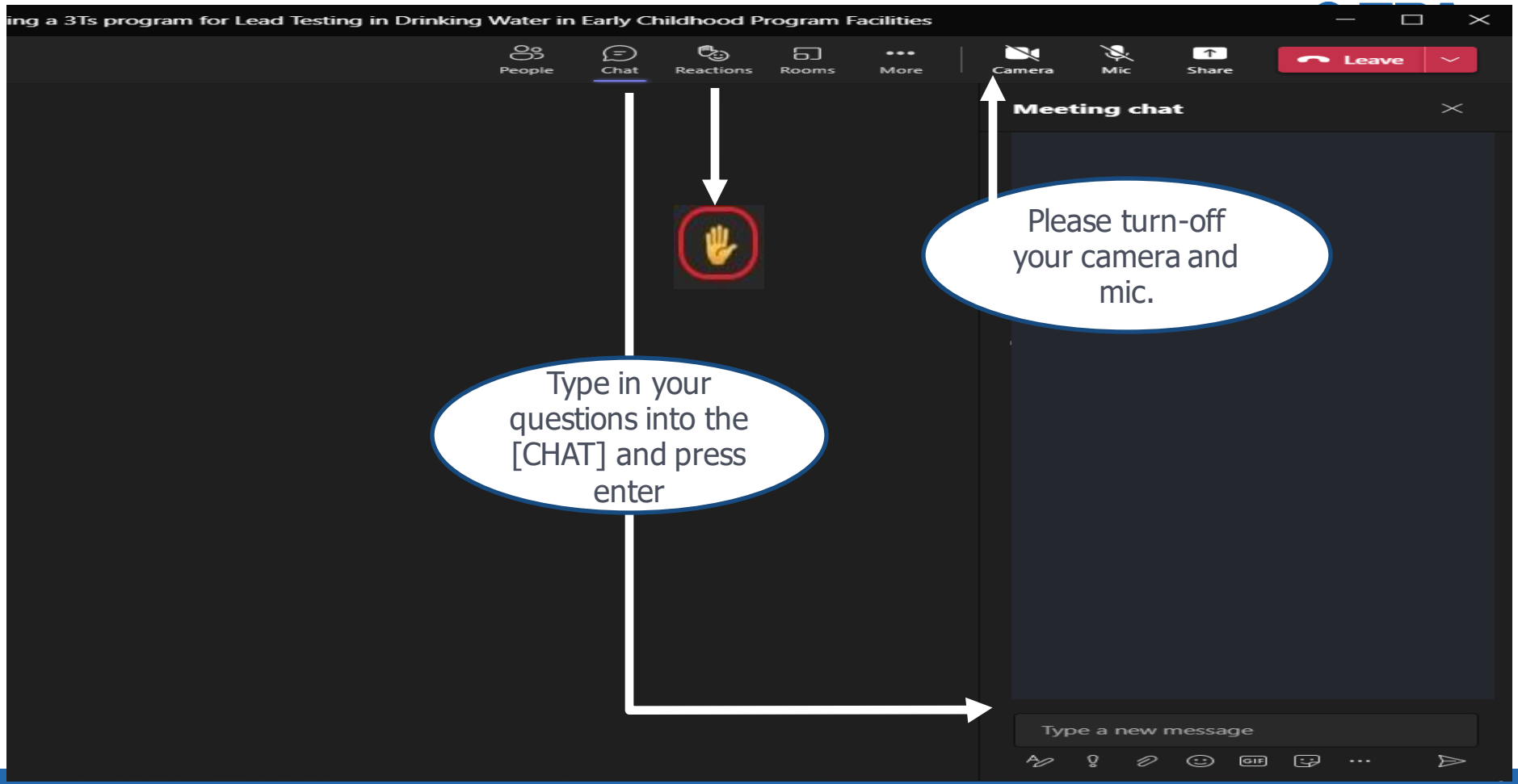
U.S. Environmental Protection Agency (EPA) and U.S. Health and Human Services (HHS) – Joint Training –

Part 3 of 3 - Taking Action: Implementing a 3Ts program for Reducing Lead Exposure in Drinking Water in Child Care and Early Childhood Facilities

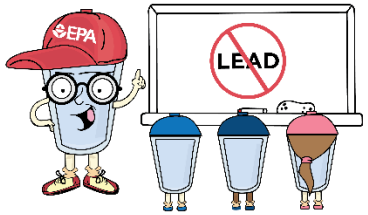
July 14, 2022 || 1:00 – 2:30 PM ET

Hosted by the US EPA Office of Water, Office of Ground Water and Drinking Water

Microsoft Teams Orientation



3-Part Joint Training Series



Training

Testing

Taking Action

June 14, 2022 (1:00 pm – 2:30 pm ET)

- **Part 1 -- Training**: Implementing a 3Ts program for Lead Testing in Drinking Water in Child Care and Early Childhood Facilities.

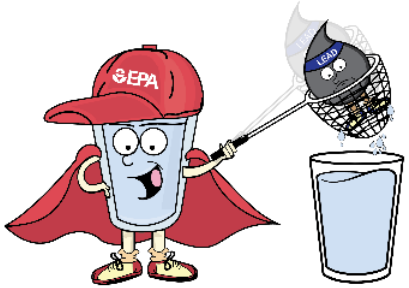
June 23, 2022 (1:00 pm – 2:30 pm ET)

- **Part 2 -- Testing**: Implementing a 3Ts program for Collecting Lead Samples in Drinking Water in Child Care and Early Childhood Facilities.

July 14, 2022 (1:00 pm – 2:30 pm ET)

- **Part 3 -- Taking Action**: Implementing a 3Ts program for Reducing Lead Exposure in Drinking Water in Child Care and Early Childhood Facilities.

Agenda – Part 3



Taking Action: Implementing a 3Ts program for Reducing Lead Exposure in Drinking Water in Child Care and Early Childhood Facilities

- ❑ EPA Program and Funding (10 min.)
- ❑ HHS – Office of Head Start Program and Funding (10 min.)
- ❑ HHS – Office of Child Care Program and Funding (10 min.)
- ❑ Case Study – Vermont Lead Testing Program (15 min.)
- ❑ Taking Action: Build the Plan and Remediation (30 min.)
- ❑ Q&A (10 min.)

Presenters: EPA and HHS

Cindy Mack
Environmental Health Scientist
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Program Manager, 3Ts on Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities

U.S. EPA/ Office of Water/Office of Ground Water and Drinking Water, Washington, DC

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Program Lead, EPA Water Infrastructure Improvements for the Nation Act (WIIN) Grant program Lead

U.S. EPA/ Office of Water/Office of Ground Water and Drinking Water, Washington, DC

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Head Start Program Management Specialist
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Presenters: Vermont Lead in School and Childcare Drinking Water Program

David S. Grass, PhD (he/him/his)
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Lead in School and Childcare Drinking Water Program/Division of Environmental Health/Vermont Department of Health/ Burlington, Vermont

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Lead in School and Childcare Drinking Water Program/Division of Environmental Health/Vermont Department of Health/ Burlington, Vermont

U.S. Environmental Protection Agency
Office of Water

Background

Presenter: Cindy Mack

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EPA

OFFICE OF GROUND WATER AND DRINKING WATER

JUSTICE 40 and Water Infrastructure


THE WHITE HOUSE

BRIEFING ROOM

The Path to Achieving Justice40

JULY 20, 2021 • BLOG

By Shalanda Young, Brenda Mallory, and Gina McCarthy

President Biden has made historic commitments to use every lever at his disposal to advance environmental justice and spur economic opportunity for disadvantaged communities. And within his first weeks in office, he established the Justice40 Initiative.

"Every person in the United States has the right to clean air, clean water, and a healthier life no matter how much money they have in their pockets, the color of their skin or their zip code."

Photo: Caroline Brehman/CQ Roll Call/bloomberg

EPA ADMIN. MICHAEL REGAN

This is an unprecedented opportunity to serve overburdened and vulnerable communities across the United States.

We value your feedback and want to make sure that our strategic plan makes sense, shows accountability, and achieves clear improvements on the ground.

3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities

Memorandum of Understanding - Partners -

EPA OFFICE OF GROUND WATER AND DRINKING WATER

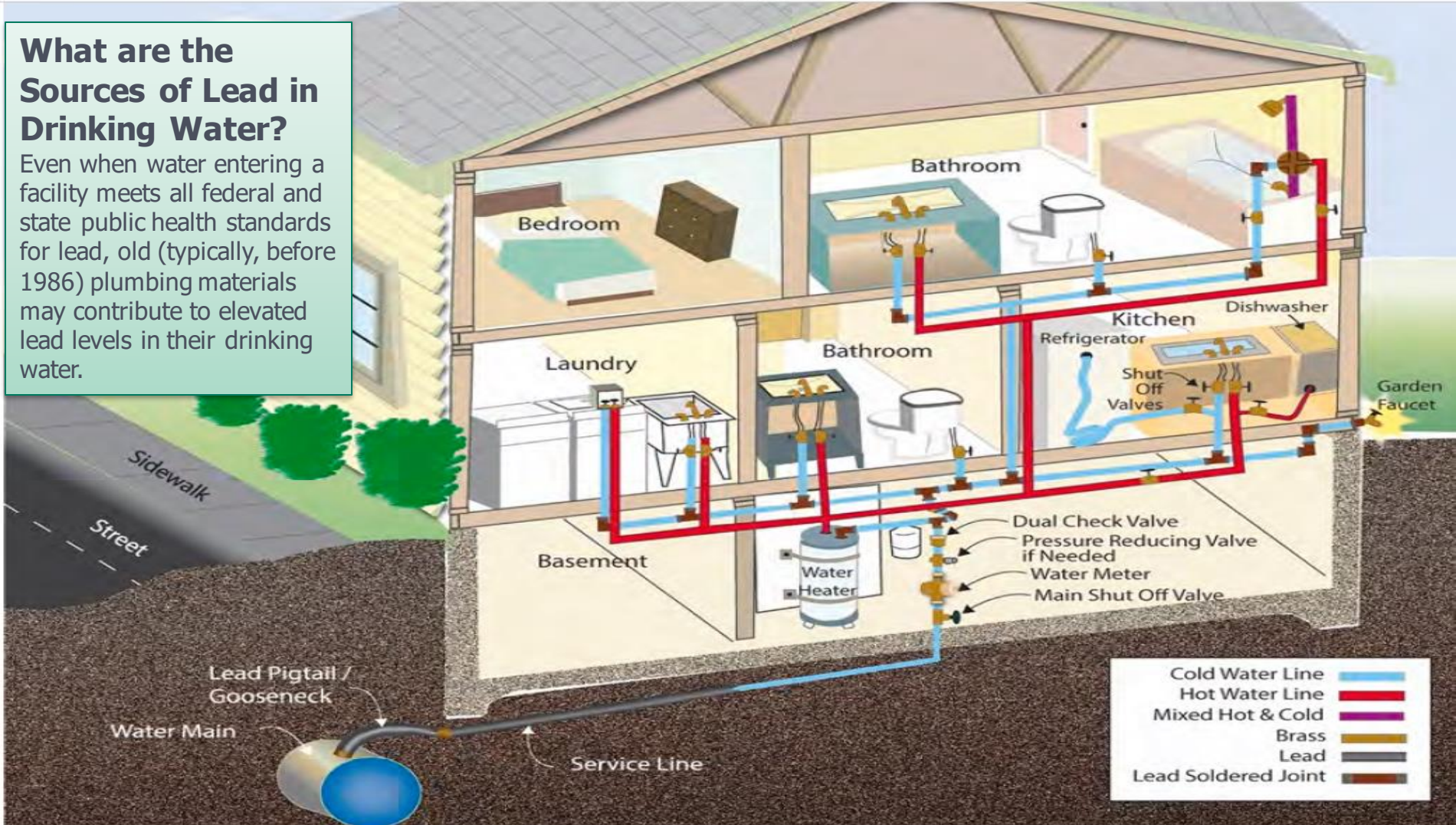
U.S. Environmental Protection Agency, Office of Water

1. U.S. Depart. of Agriculture, Rural Development Agency
2. U.S. Depart. of Education
3. U.S. Depart. of Health and Human Services, Agency for Children and Families' Office of Head Start and Office of Early Childhood Development
4. U.S. Depart. of Health and Human Services, Centers for Disease Control and Prevention
5. U.S. Depart. of Health and Human Services, Indian Health Service
6. U.S. Depart. of the Interior, Bureau of Indian Affairs and Bureau of Indian Education
7. American Water Works Association
8. American School Health Association
9. Association of Metropolitan Water Agencies
10. Association of State Drinking Water Administrators
11. Inter Tribal Council of Arizona, Inc.
12. National Association of Water Companies
13. National Rural Water Association
14. Rural Community Assistance Partnership
15. United South and Eastern Tribes

WHY IS THIS IMPORTANT?

What are the Sources of Lead in Drinking Water?

Even when water entering a facility meets all federal and state public health standards for lead, old (typically, before 1986) plumbing materials may contribute to elevated lead levels in their drinking water.



How is Lead Regulated in Drinking Water?

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- EPA regulates Public Water Systems (PWSs) – Safe Drinking Water Act.
- EPA does not have the authority to regulate schools and child care facilities, unless it is a PWS.
- **EPA provides funding and the 3Ts program to voluntarily test and remediate lead in drinking water in schools and child care facilities.**

1986 - The Lead Ban: A requirement that only "lead-free" materials be used in new plumbing and in plumbing repairs.

1988 - The Lead Contamination Control Act: The LCCA aimed at the identification and reduction of lead in drinking water at schools and child care facilities, including the recall of drinking water coolers with lead lined tanks.

1991 - The Lead and Copper Rule: A regulation by EPA to control the amount of lead and copper in water supplied by public water systems.

2011 - The Reduction Of Lead In Drinking Water Act: This act further reduces lead and redefines "lead-free" under the Safe Drinking Water Act (SDWA).

- **State Laws:** Some states, tribes and local jurisdictions established regulations for schools and child care facilities.

The Lead and Copper Rule Revisions (2021): For the first time, requiring PWSs to test schools and child care facilities in their customer base.

3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities

TRAINING – TESTING – TAKING ACTION

3Ts Manual (English and Spanish)

Training *school and child care officials to raise awareness of lead in drinking water.*

Testing *drinking water in schools and child care facilities to identify potential lead problems.*

Taking action *to reduce lead in drinking water.*

3Ts 7-Module Toolkit

View School-specific Resources

View Child Care-specific Resources

View Additional Resources

EPA 3Ts Webpage: https://www.epa.gov/safewater/3Ts

3Ts - TRAINING – TESTING – TAKING ACTION

Tools and Outreach Materials

OFFICE OF GROUND WATER AND DRINKING WATER

3Ts Tools

1) Ensuring Drinking Water Quality in Child Care Facilities During and After Extended Closures
2) Ensuring Drinking Water Quality in Schools During and After Extended Closures
3) Parent Communication Template Letter
4) Webinar: EPA & USDA Grants and Loans
5) Data eTrackers – Inventory to Actions
6) Toolkit (Manual) in Spanish

NEW!

Coming this summer!

1) Sampling Field Guide & video (7 mins.)
2) Sampling Poster for Child Care Facilities
3) Plan eBuilders
4) Factsheet: Interpreting Sample Results
5) Factsheet: Common Drinking Water Plumbing Materials (Lead vs. non-lead)
6) Factsheet: Federal Agency Funding

EPA 3Ts Webpage: https://www.epa.gov/safewater/3Ts

3

ampling eTracker for Child Care

3Ts: Training, Testing, Ta

WHO should use this Sampling e

This sampling eTracker is a recordkeeping a
facilities and small schools with ten (10) or
samples for lead testing. If more than 10 ou
Schools located at www.epa.gov/safewater/

If your facility is receiving funding from the
Improvements for the Nation (WIIN) Act gr
contains an auto-populating form (**Table 4**) that can be used to
you have questions, you can find your EPA Region and state pro
https://www.epa.gov/dwcapacity/wiin-2107-lead-testing-school
grant-program.

WHY should I use this Sampling eTracker?

- **For Recordkeeping:** This tool s
results with any level of lead dete
districts, or others that may requ
- **For Reporting:** This tool contain
facility or small school is receiving

HOW do I use this Sampling

This is a PDF file with fields to be fille
auto-populated and does not need to
copy, you can print out the form. Wh
orientation in the Print dialog box. **No**
fill this Sampling eTracker out electro
WIIN Grant Recipients to auto-po

Instructions or

Note: For WIIN grant recipients, an asteris

Forms	Inten
Table 1. Testing Table	All Fac
Table 2. Taking Action Table	Non-W
Table 3. Taking Action Table	WIIN (
Table 4. State Report	WIIN (
Glossary	All Fac

2

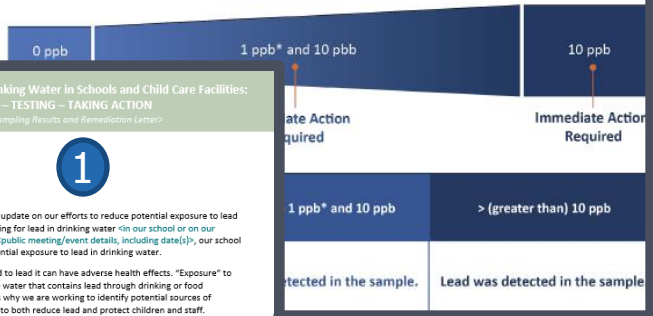
U.S. EPA 3Ts Program
Interpreting Lead Sample Results
For Schools and Child Care Facilities

EPA United States Environmental Agency

U.S. EPA 3Ts (Training, Testing, and Taking Action) Program developed this factsheet to provide guidance to schools and child care facilities on how to interpret drinking water lead sample results and offer recommendations for next steps after receiving sample results.

Interpreting Lead Results

There is no safe blood lead level in children. Use the flow chart below to guide you while interpreting your laborator
results. You can take next steps based on those results. Make sure all your lead results are in units of parts per billio
(ppb). You might need to first convert the results if they are reported to you in other units. Refer to the conversion c
on how to convert your results. For each result (in ppb), there is a brief description of what the value could mean,
possible reasons for that result, and next steps to consider.



State or School Logo

3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities:
TRAINING – TESTING – TAKING ACTION
<Template: Lead Sampling Results and Remediation Letter>

1

<Date>
<Point of Contact>
<School Address>

Dear <Parents, Caregivers, Teachers>:

<Enter school name/organization> would like to provide an update on our efforts to reduce potential exposure to lead from school drinking water by taking steps that include testing for lead in drinking water <in our school or on our campus> and sharing the sampling results. As discussed at <public meeting/event details, including date(s)>, our school has a <state required or voluntary> program to reduce potential exposure to lead in drinking water.

Lead is a toxic metal. When children and others are exposed to lead it can have adverse health effects. "Exposure" to lead in drinking water means that children or staff consume water that contains lead through drinking or food preparation. There is no safe level of lead exposure which is why we are working to identify potential sources of exposure and are communicating actions that can be taken to both reduce lead and protect children and staff.

As part of our program, <school/child care facility name> developed a plan to test for lead in <number or adjective (e.g., some, all)> drinking water fountains and other outlets where students and staff get water for drinking and cooking. The <state required or determined> program lead remediation level in drinking water samples is <# ppb>. When a lead sample is detected at or above this level, we take immediate steps to address the source of lead to protect children and staff.

The sampling results of our program and our next steps are as follow:

- On <date>, we tested <#> fixtures throughout our <school/child care facility>. This included <the hallway and classroom drinking water fountains, bathroom sinks, drinking water fountains in the gym and recreational fields, and all kitchen faucets>.
- Sample results show lead was detected at/above the remediation level in <#> fixtures. No lead was detected in <#> fixtures. For the remaining <#> fixtures, lead was detected below <# ppb>.
- In response to the sampling results, we are taking immediate action on the <#> fixtures that showed lead levels at/above the program remediation level of <# ppb>. **These fixtures have been removed from service, while more permanent measures are underway.**
- For the <#> fixtures that lead was detected below the remediation level, we are <installing filters, implementing routine flushing, removing the fixtures from service, replacing drinking water fountains> to further minimize potential exposure.

You can view the detailed sample results and remediation plans at the following link: <school/child care facility's website>. Protecting the health and wellbeing of your child(ren) is our top priority and we are committed to keeping you informed every step of the way as we implement our program at <school/child care facility>.

Sincerely,

<Principal or Administrator Signature>
<Title>

Considerations for Parents: The only way to determine an individual child's lead level is to have the child's blood tested. Please contact your health provider to learn more about blood lead testing. The degree of risk depends on the child's total exposure to lead from all sources in the environment – air, soil, dust, food, paint, consumer products, and water. If you

For <name of state> requirements or lead testing guidelines: <state website>. For U.S. Environmental Protection Agency (EPA) general information on lead: www.epa.gov/lead. For

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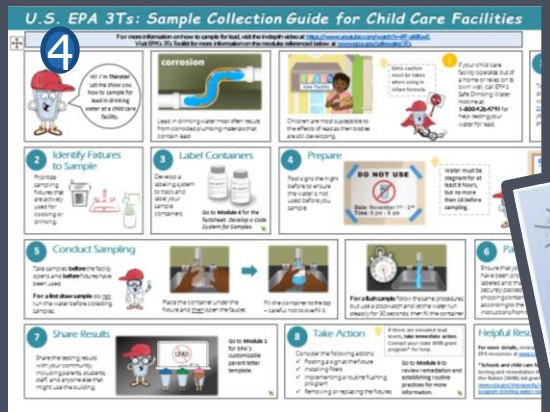


Common Drinking Water Plumbing Materials
Lead & Non-Lead in Child Care Facilities

EPA

7

WHY IS THIS IMPORTANT?

This factsheet is intended for child care facilities specializing in early care and education programs, including center-based and family child care homes, pre-kindergarten programs as well as Head Start and Early Head Start Programs.

Lead is toxic. There is no safe blood lead level in children. When children are exposed to lead it can have negative health effects that are physical and behavioral, including impaired growth and learning disabilities. This document presents common drinking water plumbing that are lead sources and non-lead materials.

DOES YOUR FACILITY HAVE A LEAD SOURCE?

Potential Lead Source Piping

Lead Pipe, Lead Connectors

A dull, gray, soft metal. Lead pipes are easily scratchable with a coin or butter knife and would show a silver color as a result of the scratch. Lead service lines can be connected to household plumbing using solder and have a bulb-like shape on the end. The bulb is a marker

Potential Lead Source

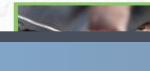
Galva
While
silver
dark b

Other Potential Sources of Lead

Lead in water can come from many other sources besides piping, such as:

Lead Solder

Silver in color, lead solder was commonly used to connect copper piping and plumbing together. Before 1987, lead solder may have had lead content up to 50% or more by mass.



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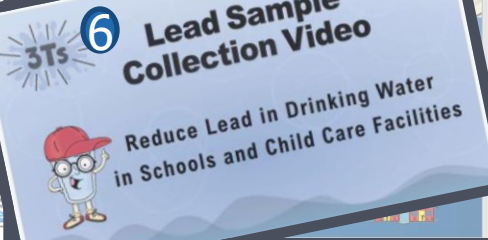

Potential Funding Sources for Reducing Lead in Drinking Water in Schools and Child Care Facilities

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- Assist schools and child care facilities identify potential funding sources for lead testing and remediation plus water quality-related projects
- Information on national foundations, corporations, state, and federal agencies that have a strong commitment to support school and child care improvement initiatives
- This guide includes:
  - 4 federal programs
  - 79 state programs
  - 115 foundations/companies providing funding opportunities

U.S. Environmental Protection Agency
Office of Water

Grants/Funding

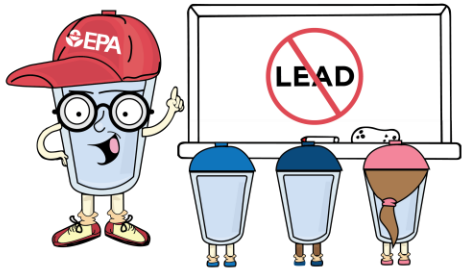
Presenter: Ying Tan

OFFICE OF GROUND WATER
AND DRINKING WATER

Water Infrastructure Improvements for the Nation Act (WIIN Act) Grants - SDWA 1464(d)

Overview:
The 2016 WIIN Act addresses, supports, and improves America's drinking water infrastructure and promote public health and the protection of the environment. **Each grant program has a tribal and state component.**

SDWA 1464(d) | Lead Testing in School and Child Care Program Drinking Water: Voluntary testing for lead contamination in drinking water at schools and child care programs.



Grant Program Priority Areas

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- Disadvantaged, low-income, and underserved communities (lack household water or wastewater services)
- Small communities (population of less than 10,000 individuals and lacks the capacity to incur debt sufficient to finance a project)
- Schools with at least 50% of the children receiving free and reduced lunch and Head Start facilities
- Older facilities that are more likely to contain lead plumbing
- Tribal elementary and child care facilities that primarily care for children six years and under
- Tribal communities and Indian Nations

Bipartisan Infrastructure Law (BIL)

EPA OFFICE OF GROUND WATER AND DRINKING WATER

- Also known as the Infrastructure Investments and Jobs Act,
- Signed by President Biden on November 15, 2021
- Historic investment in key programs and initiatives implemented by the U.S. EPA to build safer, healthier, cleaner communities.
- Includes $50 billion to EPA to strengthen the nation's drinking water and wastewater systems – the single largest investment in water that the federal government has ever made.
- Approximately $30 billion of this funding through the existing Drinking Water State Revolving Fund programs.

Bipartisan Infrastructure Law

OFFICE OF GROUND WATER AND DRINKING WATER

Voluntary School and Child Care Lead Testing and Reduction Grant Program

Expanded the program to allow funding for:

- ***Lead remediation*** (in addition to testing)
- Increases authorization of funding appropriations to approximately **~$200 million** for the coming five years of the program

What type of lead remediation efforts does the grant support?

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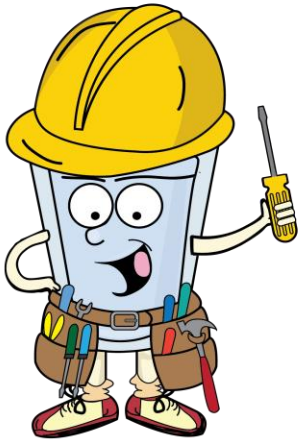
Use grant to replace, remove, install:



- internal plumbing
- faucets
- water fountains
- water filler stations
- Point-of-Use (POU) devices (e.g., NSF/ANSI certified filters)
- lead service lines
- other lead apparatus related to drinking water

Voluntary School and Child Care Lead Testing and Reduction Grant Program

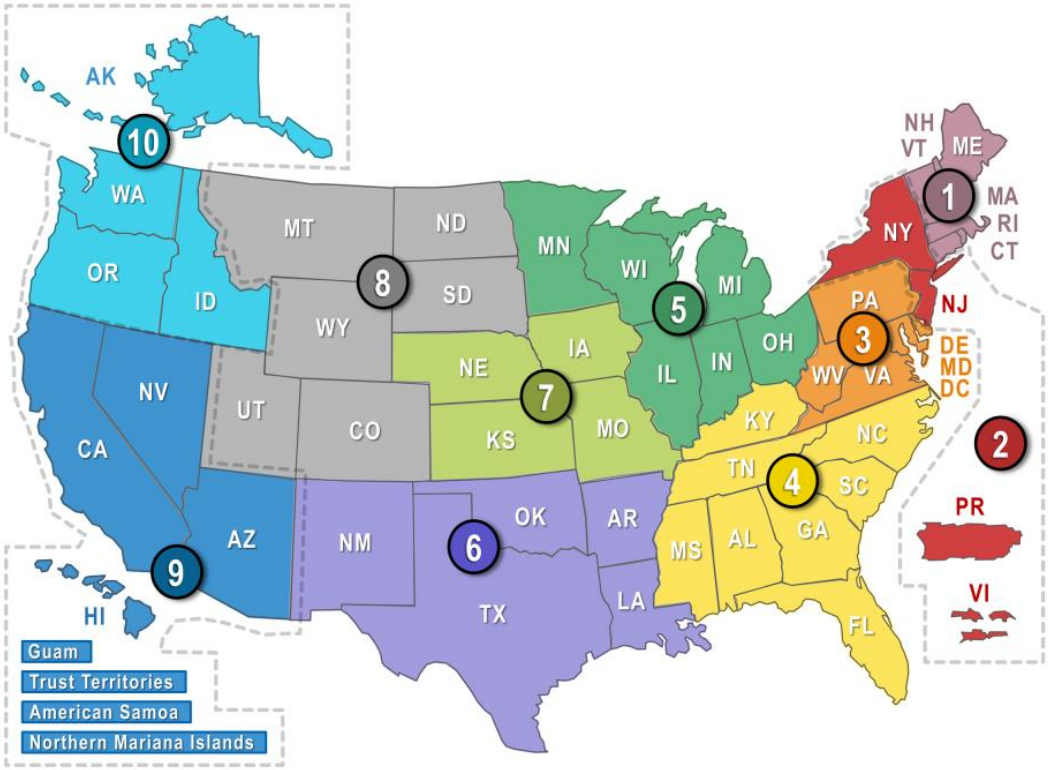
EPA
OFFICE OF GROUND WATER AND DRINKING WATER

- **Purpose of Grant**
  - Reduce children's exposure to lead in drinking water
  - Utilizing EPA's 3Ts (Training, Testing, and Taking Action) model or another model no less stringent to establish best practices
- **Who Receives Funding**
  - States & Territories that have identified participation through a call for a *Notice of Intent to Participate*

- **Total Funds Allocated**
  - ~$43 million in FY 2019
  - ~$26 million in FY 2020
  - ~$26.5 million in FY 2021
  - ~$36 million in FY 2022 (estimated)

Who is Eligible to Receive Grant Funding?

- All 50 states and DC, Puerto Rico, US Virgin Islands, and American Samoa
- Public/charter schools and **child care facilities**
  - Defined by the state
- Disadvantaged communities prioritization



How to Access the U.S. EPA Grant Funding?

- **EPA → State → Child Care and Early Childhood facilities**

- Program participation varies with state administrations
  - Voluntary online sign-ups (e.g., MN – sign up form) https://120water.formstack.com/forms/minnesota_lead_in_schools_testing_program_application

- Contact your state agencies administrating the program on participation and information. State agency contacts are available at the following link:
  - https://www.epa.gov/dwcapacity/wiin-2107-lead-testing-school-and-child-care-program-drinking-water-state-grant-program

U.S. Health and Human Services
Office of Head Start

Presenter: Jesse Escobar

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EPA

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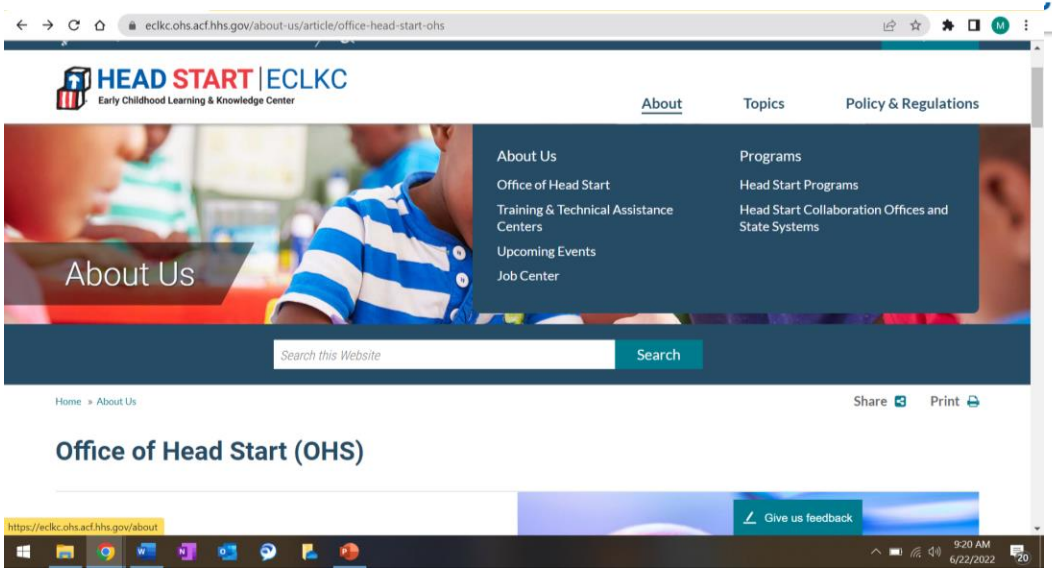
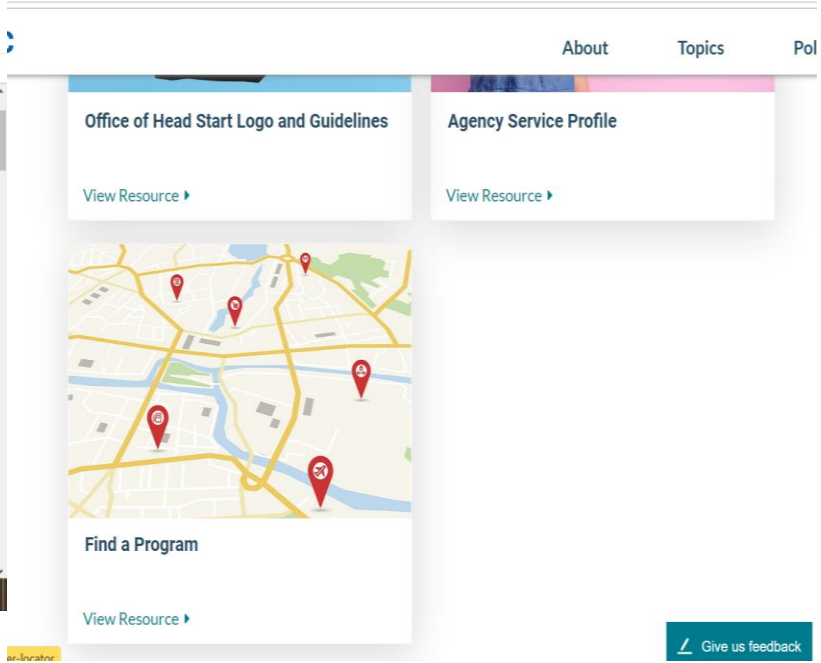
Office of Head Start

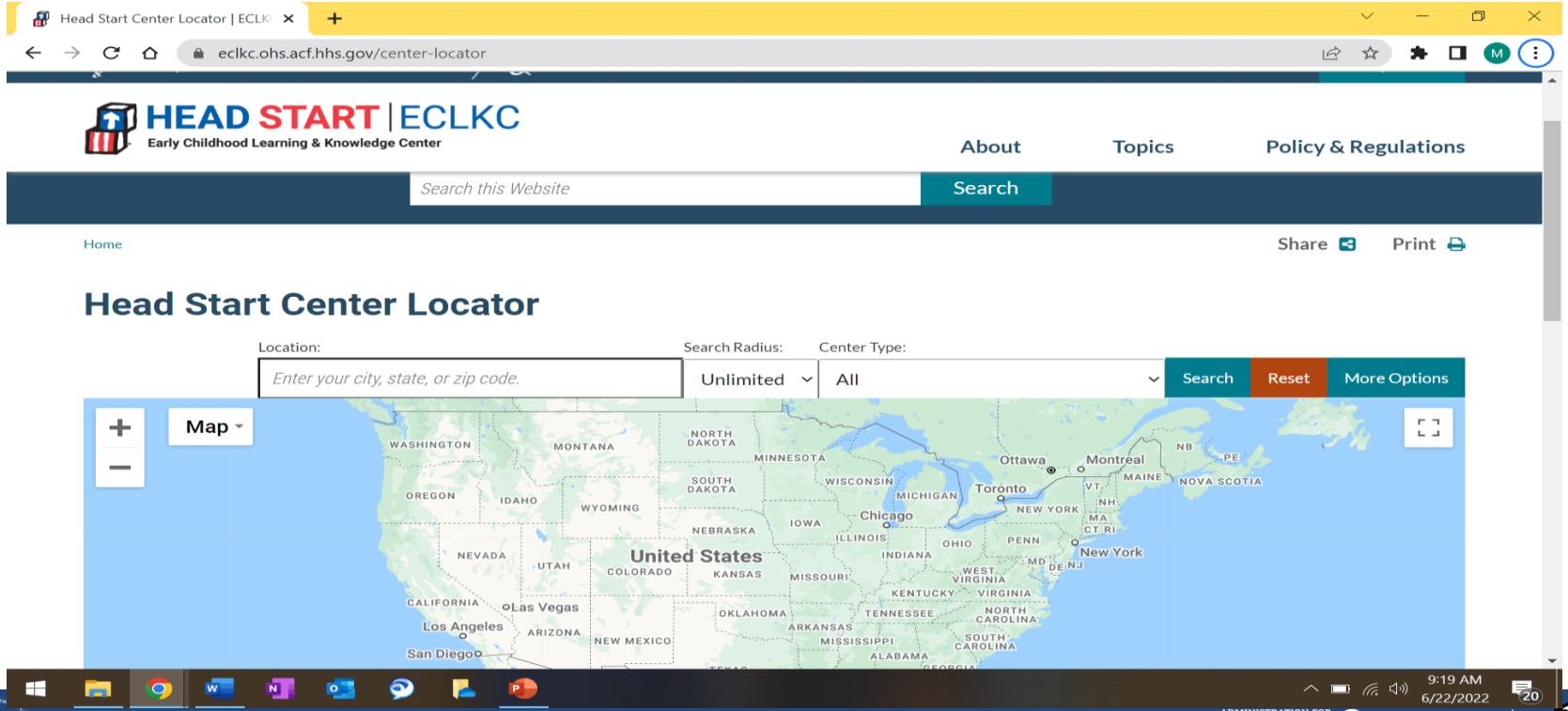
HEAD START | ECLKC
Early Childhood Learning & Knowledge Center





https://eclkc.ohs.acf.hhs.gov/

ADMINISTRATION FOR CHILDREN & FAMILIES
Office of Head Start


Head Start Center Locator | ECLKC
eclkc.ohs.acf.hhs.gov/center-locator
HEAD START | ECLKC
Early Childhood Learning & Knowledge Center
About
Topics
Policy & Regulations
Search this Website
Search
Home
Share
Print
Head Start Center Locator
Location:
Enter your city, state, or zip code.
Search Radius:
Unlimited
Center Type:
All
Search
Reset
More Options
Map
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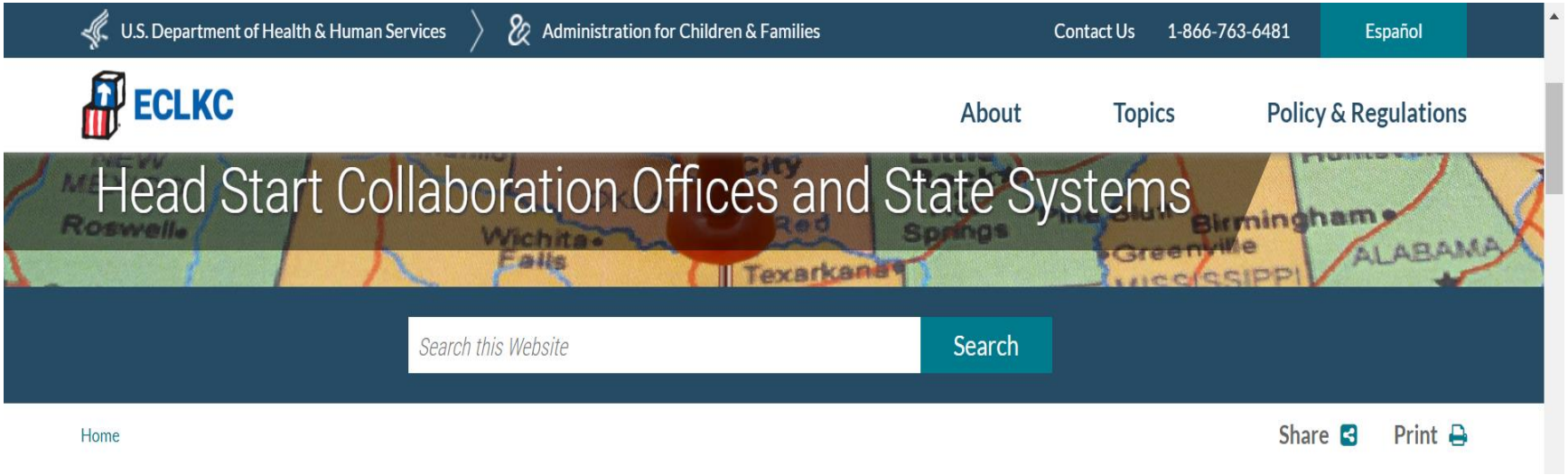
Head Start Collaboration Directors



https://eclkc.ohs.acf.hhs.gov/state-collaboration/article/head-start-collaboration-offices-state-systems

GAO Report:
Child Care Facilities

Recommendation 1

- The OHS director should require Head Start programs to document that water provided to children has been tested for lead.

Recommendation 2

- The Assistant Secretary for the Administration for Children and Families should direct OCC and OHS to develop an agreement with the EPA on their roles and responsibilities in implementing a memorandum of understanding on reducing lead levels in drinking water in schools and childcare facilities.

Standards Used for Lead Testing Findings

1302.47(b)(1)**(iii)** and **(ix)**

(b) A program must develop and implement a system of management…that includes policies and practices to ensure all facilities, equipment and materials, background checks, safety training, safety and hygiene practices and administrative safety procedures are adequate to ensure child safety. This system must ensure:

(1) *Facilities*. All facilities where children are served…are, at a minimum:

[…]

(iii) Free from pollutants, hazards and toxins that are accessible to children and could endanger children's safety

[…]

(ix) Kept safe through an ongoing system of preventative maintenance.

Funding Guidance

❑ EPA-State-Child Care and Early Childhood facilities

- Contact your state agencies administrating the program on participation and information. State agency contacts are available at the following link: https://www.epa.gov/dwcapacity/wiin-2107-lead-testing-school-and-child-care-program-drinking-water-state-grant-program

❑ Head Start funds

❑ Program Improvement (One-Time) Requests

U.S. Health and Human Services
Office of Child Care

Presenter: Tatiana Tucker

U.S. Department of Health & Human Services
Administration for Children & Families
Office of Child Care

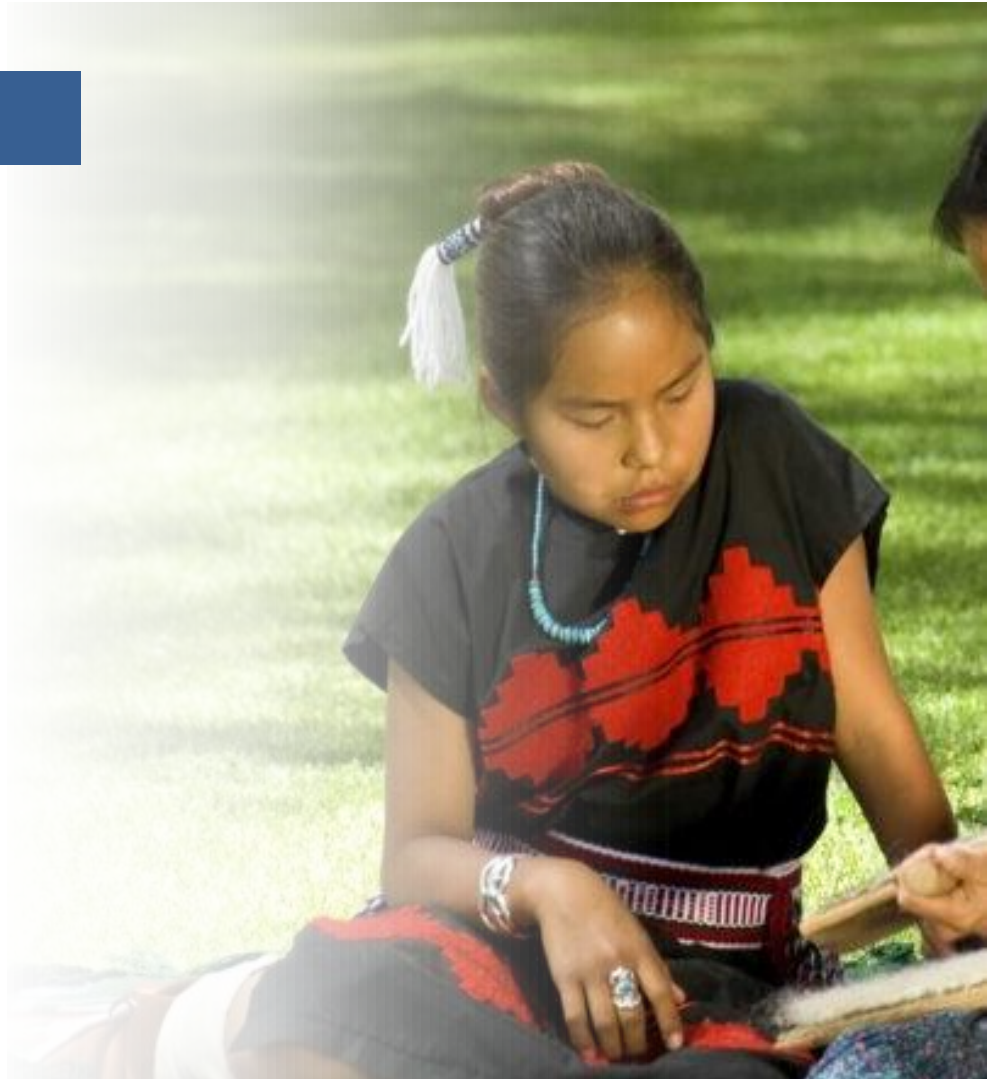
The Office of Child Care

Tatiana Tucker

Child Care Program Specialist, Office of Child Care

CCDBG

OCC is authorized through the Child Care and Development Block Grant (CCDBG) Act. Block grants provide flexibility to OCC's 321 state, territory, and tribal lead agency in terms of designing and implementing programs within specific guidelines



QUALITY ACTIVITIES

Activities to improve the quality of child care, (658G (b)) – Lead Agencies must spend 9%, plus an additional 3% for infants and toddlers, of their CCDF allocation on quality improvement activities. CCDBG requires that quality funds are spend on at least 1 of 10 specified quality activities, one of which is

Licensing and health and safety requirements

STATES MAY USE QUALITY FUNDS TO TEST DRINKING WATER

- First contact your State WIIN program. The State defines the criteria for allocating WIIN funds
- You can also look for other funding sources, one of which may be your State Child Care Office
- This is a **State Decision** – They may have obligated their quality funds in other directions, but at least two states are supporting water testing.

THE AMERICAN RESCUE PLAN ACT (ARPA)

- Every state, territory and Tribe received two pots of funding for their Child Care and Development Fund.
  - Child Care Stabilization Grants:

    Support child care programs to stay open or reopen

    Support development of new classrooms and programs
  - Supplemental Funds

    For uses authorized in CCDBG including improving the safety of drinking water

IMPORTANT WEBSITES FOR TESTING DRINKING WATER IN CHILD CARE

- https://www.healthvermont.gov/environment/children/lead-testing-drinking-water-what-child-care-providers-need-do
- https://www.elevatenp.org/leadcare-illinois/#:~:text=After%20completing%20training%2C%20child%20care,the%20lead%20in%20their%20water.
- https://info.childcareaware.org/blog/minimizing-lead-exposure-in-child-care

IMPORTANT WEBSITES FOR TESTING DRINKING WATER IN CHILD CARE

- https://www.acf.hhs.gov/occ/contact-information/state-and-territory-child-care-and-development-fund-administrators

Case-Study: Vermont Lead in School and Child Care Drinking Water Program

Presenters: Dr. Grass and Dr. Karimi

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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OFFICE OF GROUND WATER AND DRINKING WATER

Vermont Lead in School and Child Care Drinking Water

Findings from the First Round of Testing and Remediation

June 2019 – December 2021

Roxanne Karimi, PhD and David Grass, PhD
Division of Environmental Health
Vermont Department of Health

VT Environmental Public Health Tracking

VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DEPARTMENT OF HEALTH

Background

In 2019, the Vermont Legislature passed a law requiring schools and child care facilities to remove lead from drinking water

The Legislature established the Vermont Action Level at 4 ppb.

All schools and child care providers were required to test all taps used for drinking and cooking by December 31, 2021.

If levels were found at or above 4 ppb, schools and child care providers are required to remediate within 18 months of getting the results.

What lead levels are used as benchmarks in Vermont?

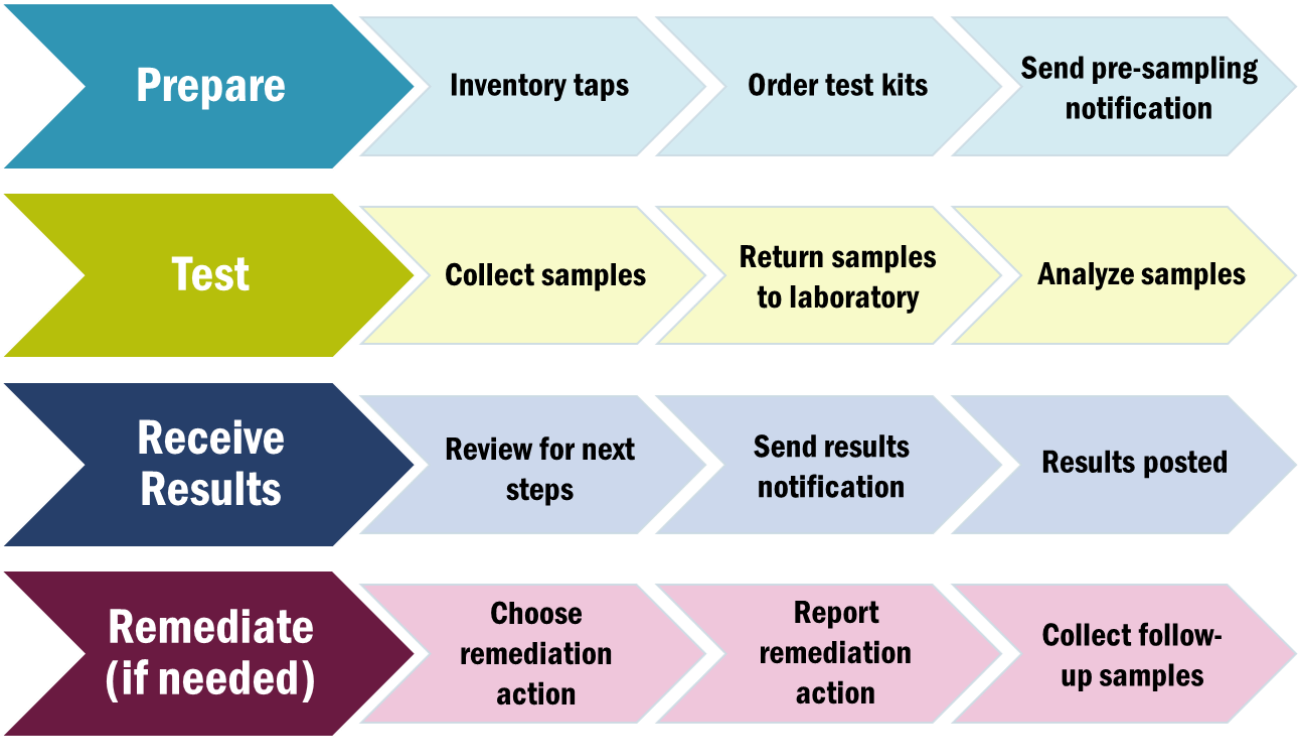
Both levels are more protective than federal law.

Vermont Action Level for Schools and Child Care Facilities: the level at which action must be taken to reduce lead in drinking water at school and child care facilities

Vermont Health Advisory Level: based on the lowest reporting level, which is supported by the American Academy of Pediatrics recommendation that lead in school drinking water not exceed 1 ppb

What We Did

The process for testing drinking water for lead in school and child care facilities include four steps



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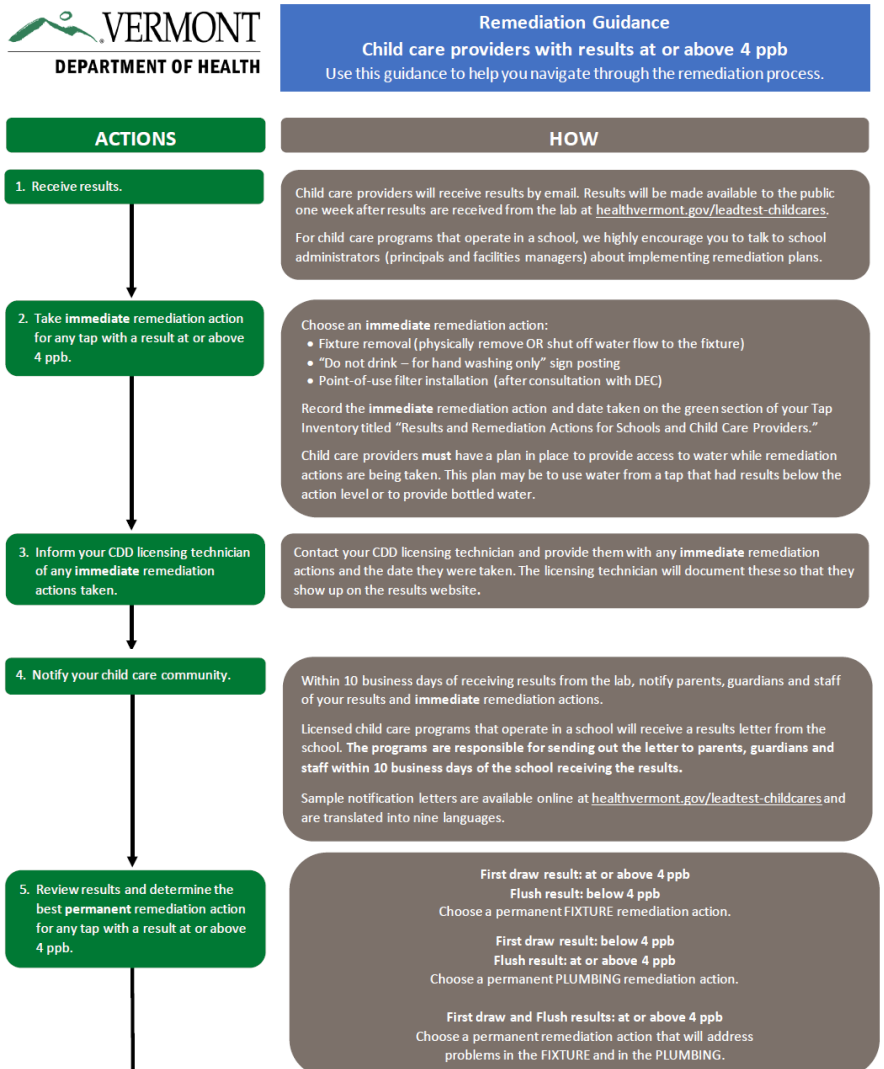
A closer look at the remediation steps providers need to take:

- ✓ **Immediately stop using taps with results at or above 4 ppb for consumption (e.g. drinking, cooking, food preparation, making bottles, and brushing teeth).**
- ✓ **Provide access to safe water while remediating. Use water from a tap that had results below the action level or provide bottled water.**
- ✓ **For taps with results at or above 4 ppb, review the remediation guidance to determine the best permanent actions to take. Document remediation actions online.**
- ✓ **Share the test results with parents, guardians and staff.**
- ✓ **Re-test taps after permanent remediation to make sure lead levels are below 4 ppb.**



Testing Results

Thousands of taps *in schools and child care facilities* had lead levels at or above the action level

98% of schools and child care facilities **completed testing**

15,366 taps were tested

1 out of every 5 taps was at or above the Vermont Action Level of 4 ppb

Results ranged from not detected to more than 25,000 ppb

Lead results for non-school based child care programs

Child Care Facilities

3

was the average number of taps (up to 24 max)

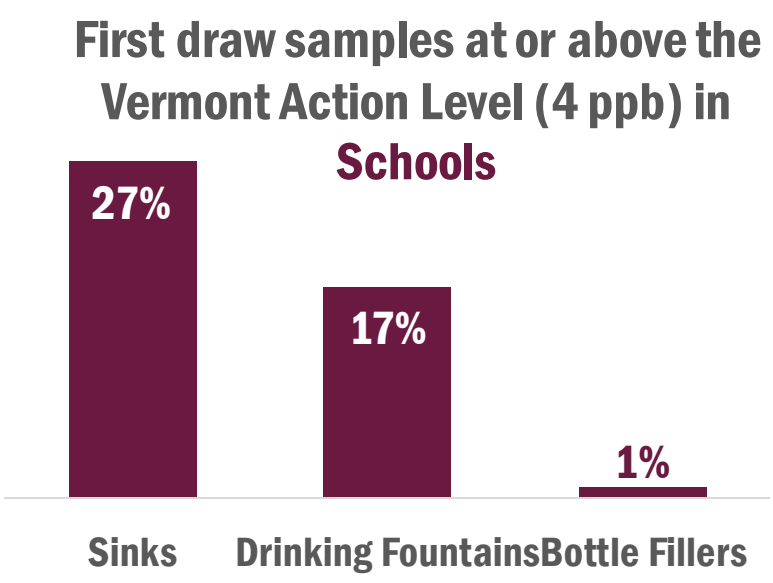
14%

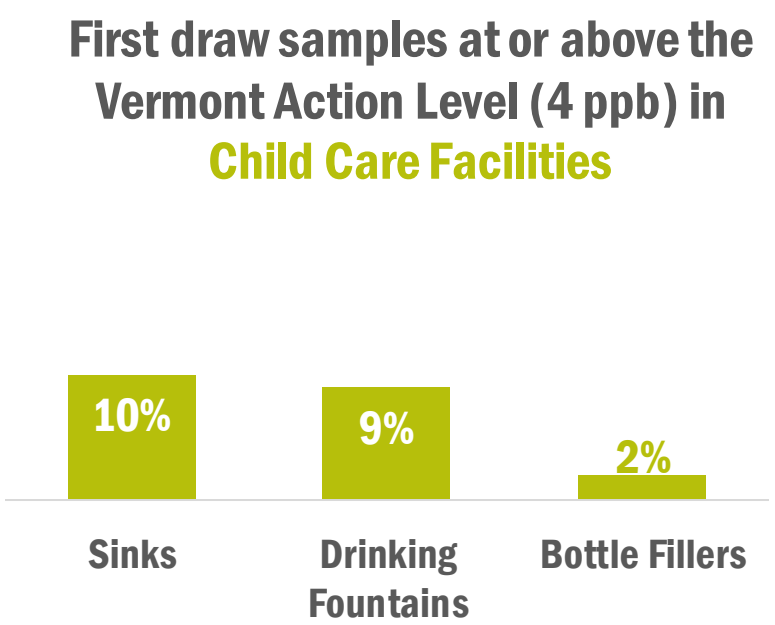
of child care facilities had at least one tap at or above 4 ppb

9%

of all taps were at or above 4 ppb and required remediation

Sinks had the most lead, bottle fillers had the least



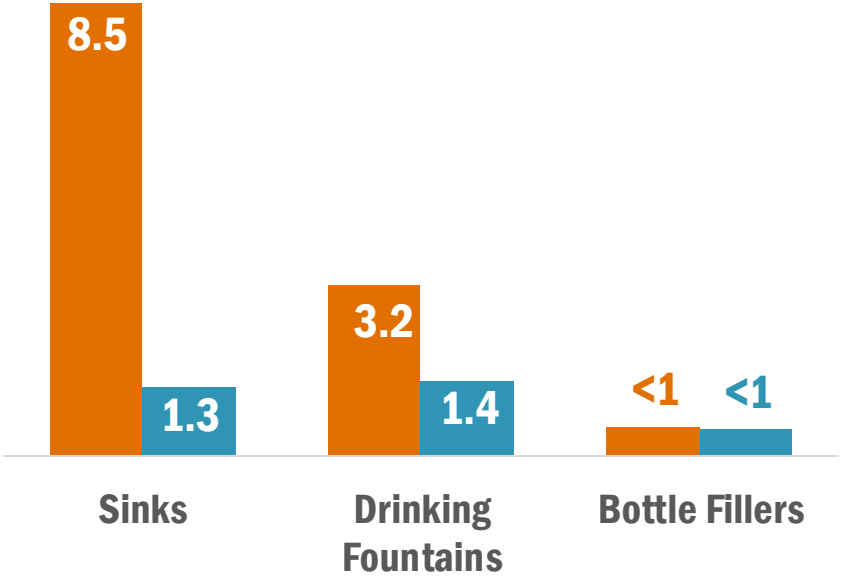


Lead was more frequently found in the fixture, not the plumbing

First draw samples had more average lead (in ppb) than **flush samples**

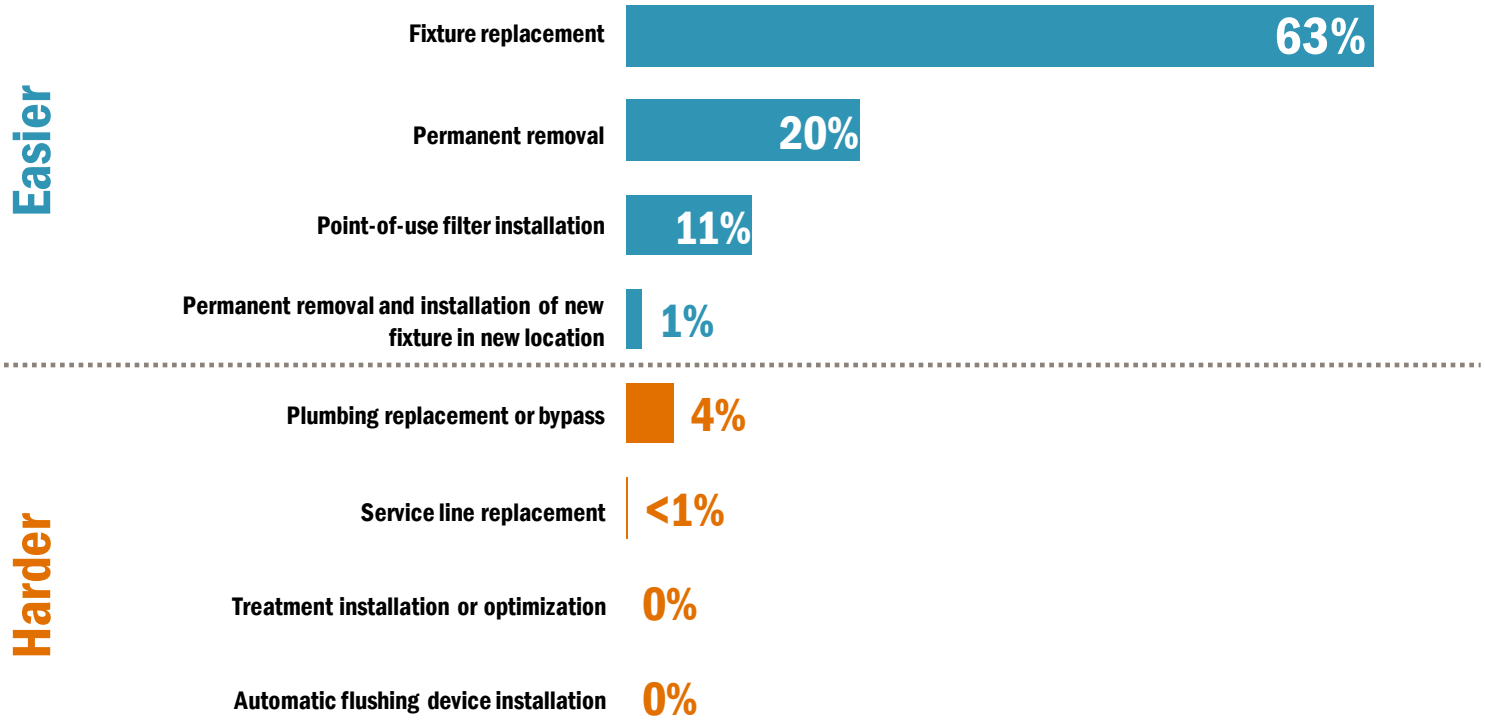
First draw samples test water coming from the fixture

Flush samples test water coming from the plumbing



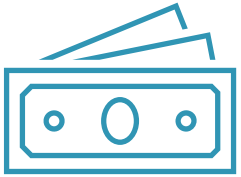
Remediation Results and Costs for Schools and Child Care Facilities

96% of remediation actions were easy



Note: Percentages are rounded to the nearest whole number.

On average, remediation costs per tap were low



90%

Of reimbursed remediation costs were less than $500*

The actual cost of fixture replacement, including parts and labor, was reimbursable up to maximum amounts.

$1,800	Public drinking fountains and ice machines
$650	Taps used for cooking
$400	All other taps in child care facilities
$350	All other taps in schools

*Costs are based on remediation reimbursement requests as of February 8, 2022.

Recommendations and Lessons Learned

Simple steps can help keep lead levels as low as possible

- ✓ Remove redundant or seldom-used fixtures.
- ✓ Encourage the use of bottle fill stations.
- ✓ When possible, permanently remediate fixtures. Try not to rely solely on flushing programs or filters.
- ✓ There is no safe level of exposure to lead. Lead levels in water should be as close to zero as possible.

Lessons learned to simplify the process for providers

- ✓ Use tap names that clearly distinguish between fixtures (e.g. “Room 12 Sink” not “Classroom Sink”).
- ✓ Identify one person responsible for testing at your facility.
- ✓ Flushing taps post-remediation is very important and often overlooked.
- ✓ Communicate before you test, and whenever you receive new results.

Lessons learned to simplify the process for state administrators

- ✓ Provide easy-to-follow instructions and materials.
- ✓ A tap inventory management system can help organize and manage changes in tap usage.
- ✓ Post results on a public website for transparency.
- ✓ Clear standards for defining taps that are “used for consumption”.

Resources and More Information

- Vermont Lead in School and Child Care Drinking Water program website including instructions for school staff and child care providers.
- Results Website including lead results and remediation status of individual schools and child care facilities.
- Vermont Department of Environmental Conservation website including a description of remediation options.
- Remediation guidance for child care providers.
- More details will be available in a full **2022 Progress Report**.

For more information, please contact us at LeadChildCare@vermont.gov or LeadSchool@vermont.gov.

U.S. EPA

Taking Action

Presenter: Cindy Mack

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Plan: Use the eBuilder

Build Your Remediation Plan

Use this section to build your plan for taking action after receiving lead testing results. You will consider immediate, short-term, and long-term actions to remediate lead in your drinking water and determine which actions could be best for your facility and community. Solutions to lead problems need to be implemented on both a short-term and a long-term basis.

Remember, there is no level of exposure to lead that is without risk to children; taking actions on all outlets that show a detected lead level can reduce exposure. These remediation actions could be as easy as shutting off the outlet as an interim measure, putting up signage noting that lead was detected at a very low level, and/or providing instructions to let the water run for a set amount of time to flush the lead out.

1. *Identify Program Remediation Trigger*
2. *Identify Remediation Contractors*
3. *Determine Immediate Actions*
4. *Determine Short-term Actions*
5. *Determine Long-term Solutions*
6. *Establish Routine Practices*

Recordkeeping: Use the Data eTracker

3Ts Sampling eTracker for Child Care Facilities and Small Schools

3Ts: Training, Testing, Taking Action

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WHO should use this Sampling eTracker?

This sampling eTracker is a recordkeeping and reporting tool. It is intended for child care facilities and small schools with ten (10) or fewer outlets when collecting drinking water samples for lead testing. If more than 10 outlets exist, use the *Sampling eTracker for Schools* located at www.epa.gov/safewater/3Ts.

If your facility is receiving funding from the state under the Water Infrastructure Improvements for the Nation (WIIN) Act grant to test for lead in drinking water, this tool contains an auto-populating form (**Table 4**) that can be used to submit reportable information to the state. If you have questions, you can find your EPA Region and state program at https://www.epa.gov/dwcapacity/wiin-2107-lead-testing-school-and-child-care-program-drinking-water-state-grant-program.

WHY should I use this Sampling eTracker?

- **For Recordkeeping:** This tool serves to track testing results and any action taken following sample results with any level of lead detected. It is especially helpful for communicating to staff, parents, school districts, or others that may request this information.
- **For Reporting:** This tool contains the data elements needed for reporting to the state if the child care facility or small school is receiving funding from the state under the WIIN Act grant.

HOW do I use this Sampling eTracker?

This is a PDF file with fields to be filled in manually for **Tables 1, 2, and 3**. **Table 4** is auto-populated and does not need to be filled in manually. If you prefer to fill out a hard copy, you can print out the form. When printing, choose the "auto" option under orientation in the Print dialog box. **Note:** It is recommended that WIIN grant recipients fill this Sampling eTracker out electronically in order for **Table 4. State Report for WIIN Grant Recipients** to auto-populate.

Instructions on How to Use the Forms in this eTracker Tool

Note: For WIIN grant recipients, an asterisk (*) indicates that the data field is used to auto-populate fields in **Table 4. State Report for WIIN Grant Recipients**.

Forms	Intended For:	Description

How to determine the Program Remediation Trigger?

EPA 3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities recommends:

- ***Take appropriate action for each*** drinking water fixture with a detected lead level
- ***Take immediate action (typically 24 hours) on fixtures with results that exceed*** your PRT (level of concern) and prioritize highest lead levels
- ***Contact your state and determine the appropriate PRT/level of concern***
  - The level may be set by the facility and/or state, depending on existing state regulations and funding support.
  - Many states have regulations that require taking action at specific levels of lead detected in drinking water in schools and child care facilities.
  - ***If you are a recipient of funding from your state's Water Infrastructure Improvements for the Nation (WIIN) Act***, the state will provide the lead level detected in a sample that will result in you taking immediate follow-up, remediation, or replacement actions. Find your state program at https://www.epa.gov/dwcapacity/wiin-2107-lead-testing-schooland-child-care-program-drinking-water-state-grant-program.

Benchmarks for determining PRT

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There are many benchmarks for the amount of lead (recommended or allowed) in drinking water; however, EPA has a **maximum contaminant level goal (MCLG) of 0.** The table below compares EPA's benchmark to other organizations.

Common Benchmarks for Lead in Drinking Water	
Amount (ppb)	**Source**
0	EPA MCLG
1	American Academy of Pediatrics
5	Bottled Water Standard
10	World Health Organization Provisional Guidance

National Landscape

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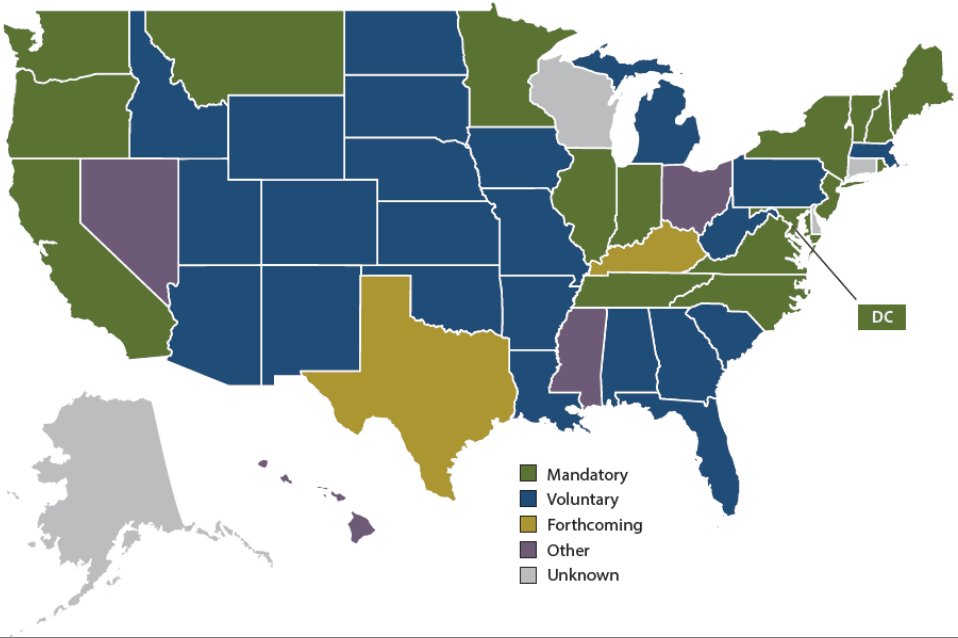
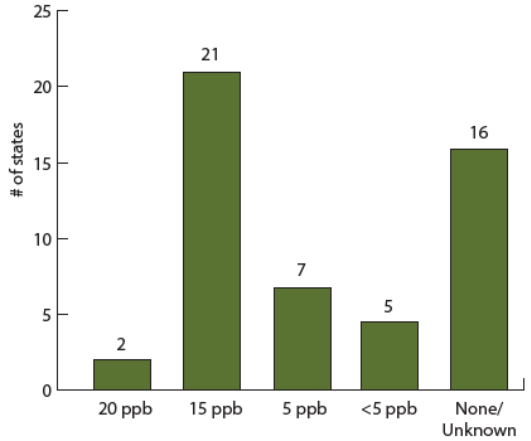
[MAP 1]

Lead in Water Testing Efforts, April 2021 to August 2021



[FIGURE 3]

Required or Suggested Action Levels for Addressing Lead in Water, April–August 2021



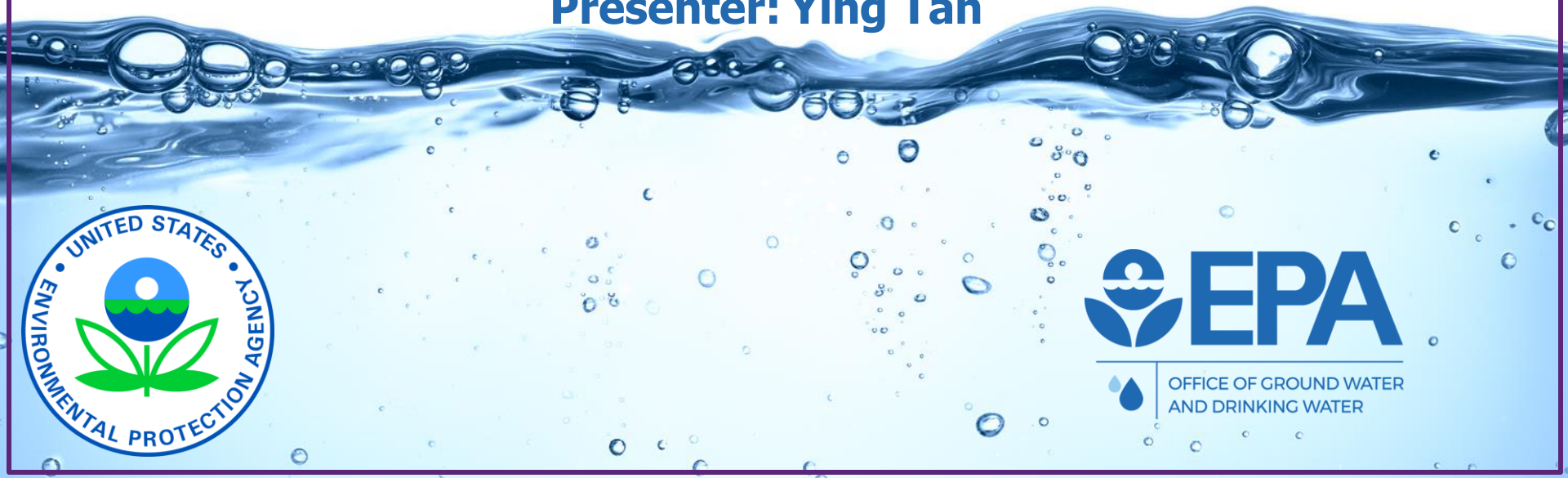
Note: If a state had multiple action levels, we used the lowest for grouping purposes.

Source: National Association of State Board of Educators -- https://www.nasbe.org/how-states-are-handling-lead-in-school-drinking-water/

U.S. EPA

Lead Test Results Interpretation & Taking Action

Presenter: Ying Tan



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Lead Test Results Example (1 of 2)

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Date Sampled	Date Analyzed	Collection Type	Tap	Result
Feb 28, 2020	Jul 23, 2020	Initial Flush	Classroom Combo: Sink / Fountain Sink	<1 ppb
Feb 28, 2020	Jul 23, 2020	Initial First Draw	Kitchen Sink Left	<1 ppb
Feb 28, 2020	Jul 23, 2020	Initial Flush	Kitchen Sink Left	<1 ppb
Feb 28, 2020	Jul 29, 2020	Initial First Draw	Kitchen Sink Right	6 ppb*
Feb 28, 2020	Jul 28, 2020	Initial Flush	Kitchen Sink Right	5 ppb*

Lead Test Results Example (2 of 2)

Dear :

The water samples collected from your property from September 25th-29th were analyzed for lead as you requested. The result of the test is enclosed. The "first draw" sample was taken after the water had been stagnant in the pipes for at least for six hours. The "flushed" sample was collected after 2 – 3 minutes of flushing following the first-draw sample. The test result for lead is as follows:

Site	Lead Results (parts per million)*	EPA Action Level**	EPA MCLG***
Master Bthrm (first draw)	<0.002	0.015	0
Master Bthm (flushed)	ND	N/A	N/A
Basement Bthrm (first draw)	0.00950	0.015	0
Basement Bthrm (flushed)	ND	N/A	N/A
Kitchen (first draw)	ND	0.015	0
Kitchen (flushed)	ND	N/A	N/A
Kid's Bthrm (first draw)	ND	0.015	0
Kid's Bthrm (flushed)	ND	N/A	N/A

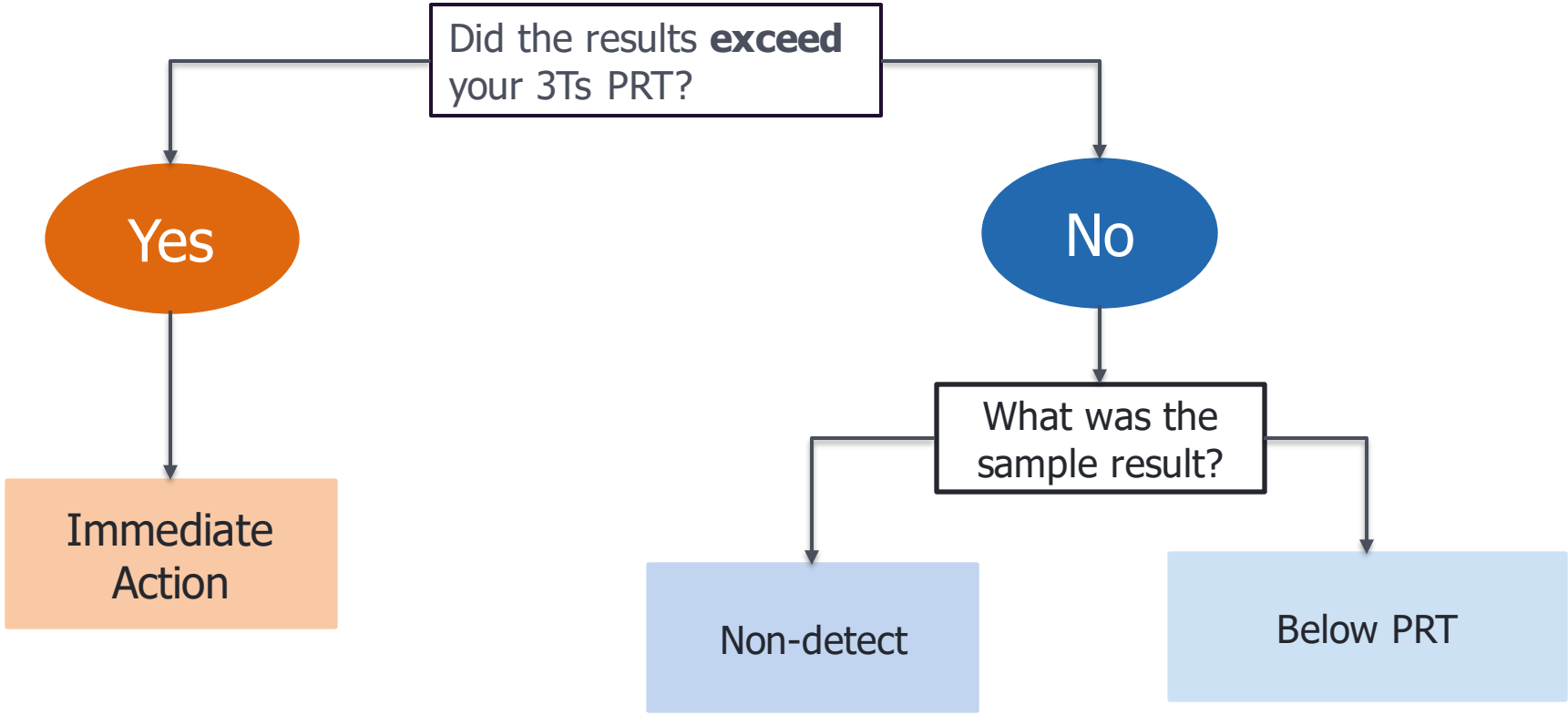
*Parts per million: equivalent to milligrams per liter (mg/L)

**Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Unit Conversion
1 ppb = 0.001 ppm = 1 µg/L = 0.001 mg/L

- Common units for lead concentration
  - ppm & ppb
  - mg/L & µg/L
- ND – Non-detect
- Program Remediation Trigger

Action Decision Tree

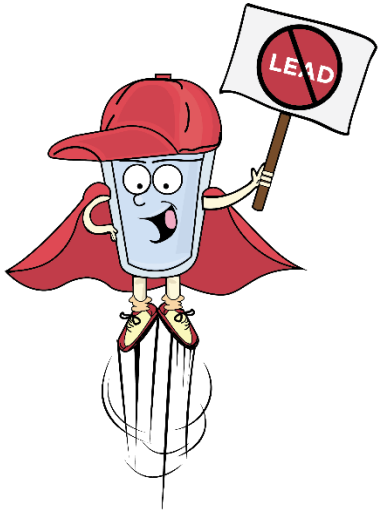


Action Decision Tree – Immediate Action

Did the results **exceed** your 3Ts PRT?

Yes

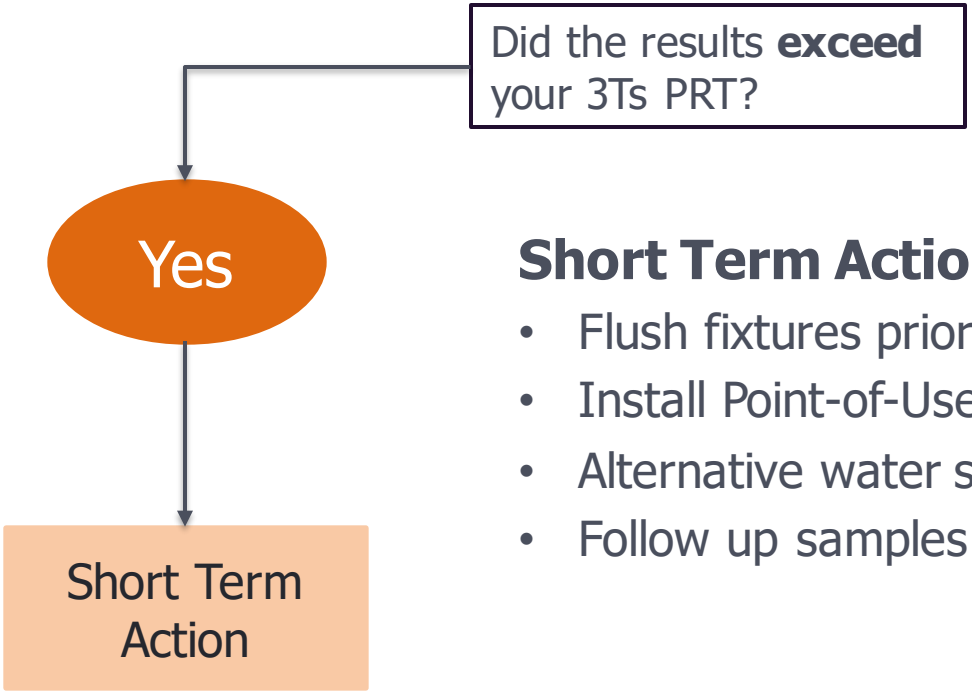
Immediate Action



Immediate Action Examples:

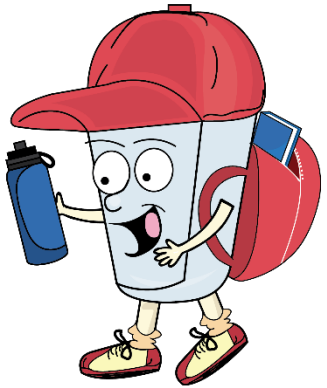
- Share lead test results
- Reach out to your water system for guidance
- Put up "Do not drink" Signs
- Temporarily placing fountains out of commission

Action Decision Tree – Short Term Action

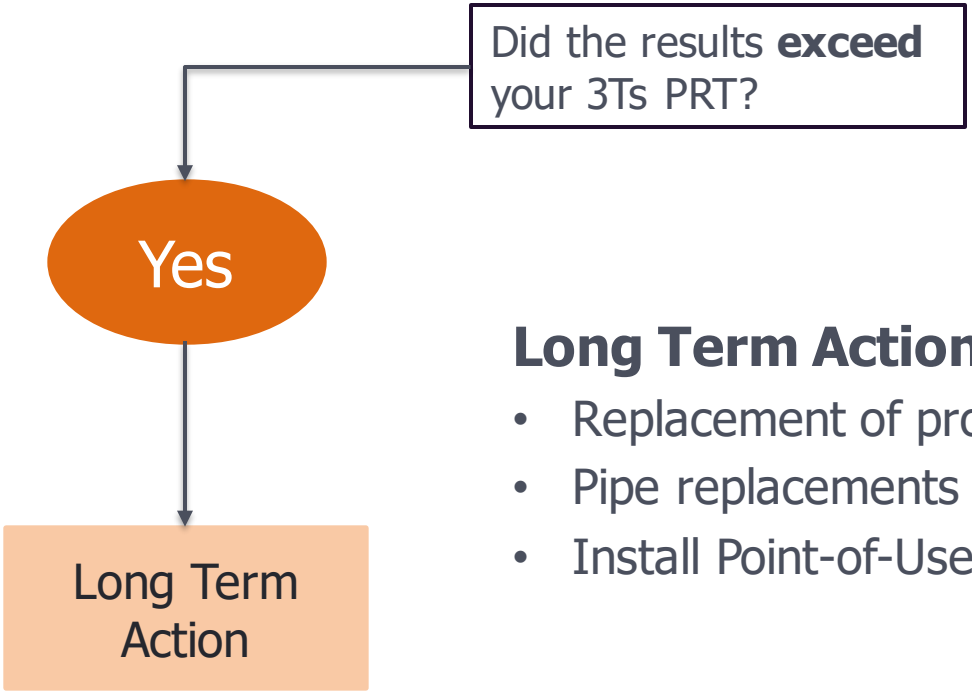


Short Term Action Examples:

- Flush fixtures prior to use
- Install Point-of-Use (POU) devices
- Alternative water source
- Follow up samples



Action Decision Tree – Long Term Action

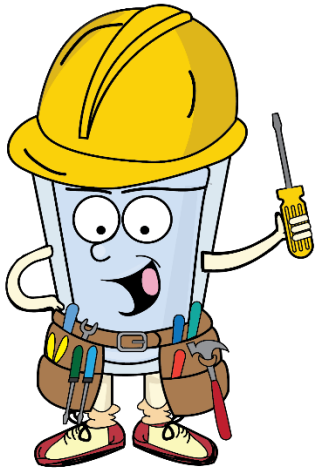


Long Term Action Examples:

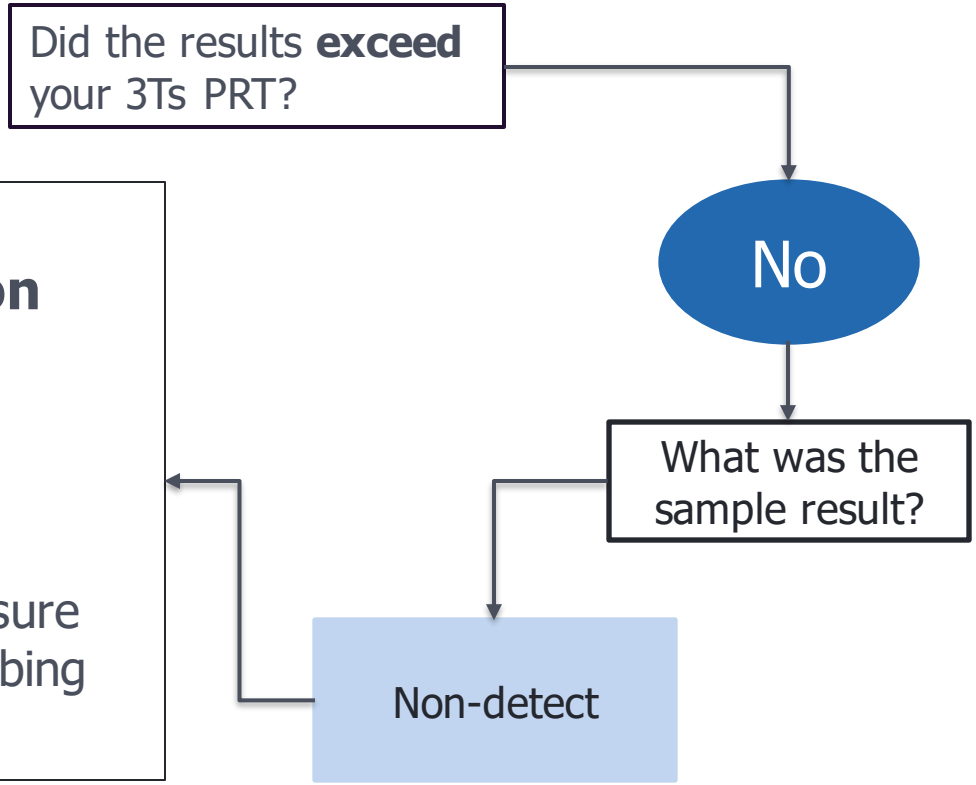
- Replacement of problematic faucets or fixtures
- Pipe replacements or reconfiguration (e.g., bypass)
- Install Point-of-Use (POU) device

Long Term Action Considerations

- Implement permanent long term actions as needed
  - Re-sampling efforts found elevated lead too?
  - Elevated lead results are local?
- Long-term solutions may involve replacement or repairs
- When making any repairs or conducting work to replace plumbing or fixtures, ensure that "lead-free" solders and other materials are used.



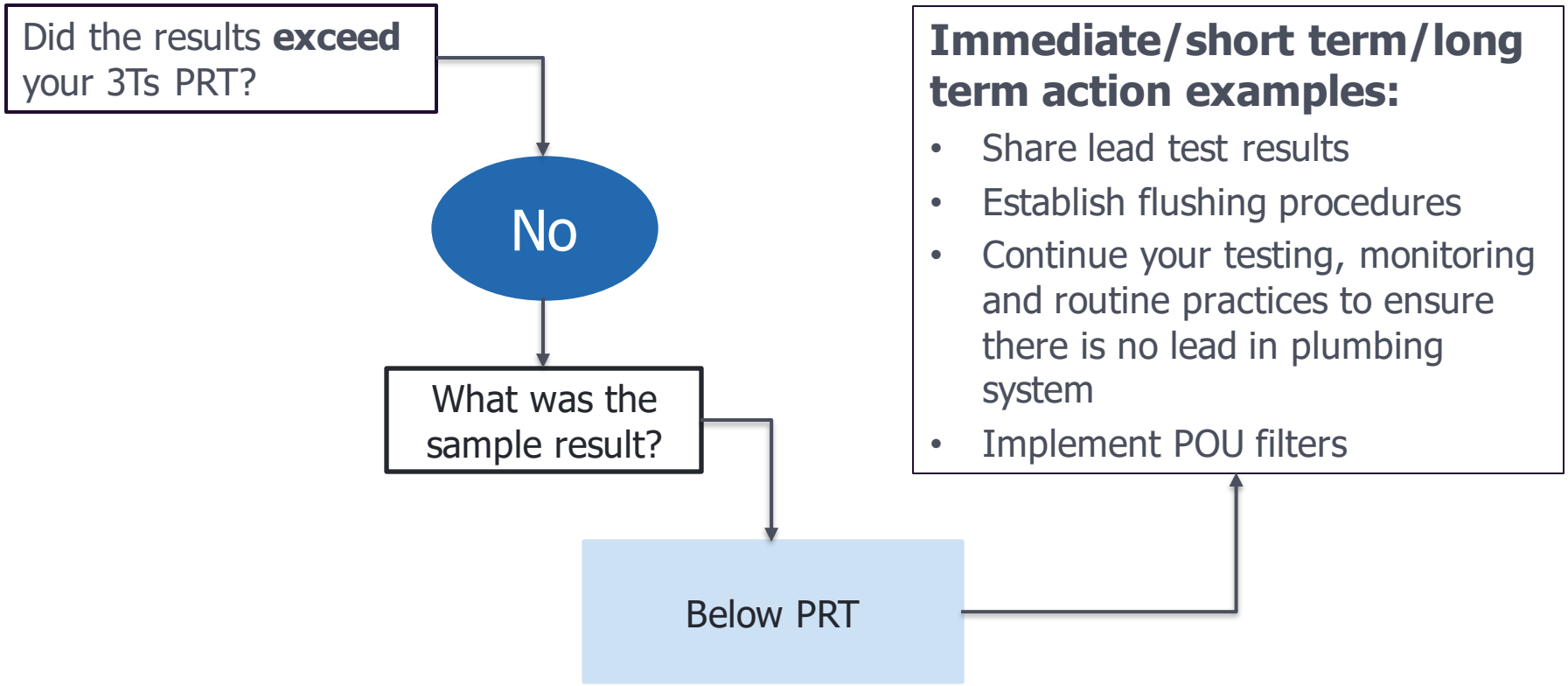
Action Decision Tree



Immediate/short term/long term action Examples:

- Share lead test results
- Continue your testing, monitoring, and routine practices to ensure there is no lead in plumbing system

Action Decision Tree



Routine Practices to Reduce Lead

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- Establish routine practices to reduce lead exposure and ensure drinking water quality

✓ Clean aerators and water fountain strainers regularly.

✓ Create a schedule for filter replacement to change the filter.

✓ Use only cold water for food and beverage preparation.

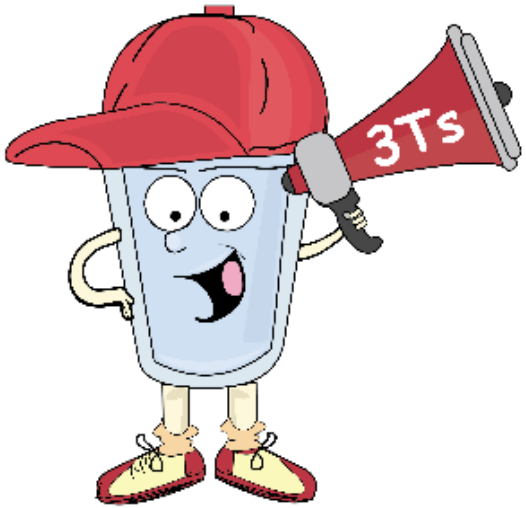
✓ Flushing (running the water) as a routine practice can prevent elevated lead results proactively.

✓ Evaluate the facility for cross-connections or can consider installing cross-connection prevention apparatus.

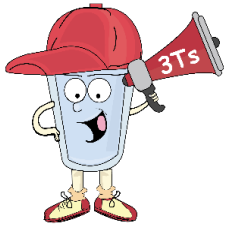
Important Considerations

- **There is no safe blood lead level in children.** Children are most susceptible to the effects of lead.
- **A sample test is a snapshot of the lead level taken at the time it was collected.** Prior lead levels should not be used to assume that an outlet or facility is lead-free.
- **Results from one outlet should not be used to generalize the lead levels at other outlets in the facility.** Lead can be in drinking water from fixtures and building plumbing, so a sample taken at any given fixture is not representative of the entire facility.
- **Buildings and fixtures built before 1986 are more likely to have lead solder and/or plumbing components that contain lead.**
- **Regularly scheduled testing and routine practices are essential to reducing lead in drinking water.** Consult with your public water system for guidance.

Takeaways!



- Develop your plan on TRAINING, TESTING and TAKING ACTION **before** you sample
- Know your PRT **before** you sample
  - Contact your state WIIN grant program
  - Contact your state Drinking Water Office
- Take **immediate action** (generally 24 hrs.) on results that exceed your PRT
- **Communicate to parents, guardians** and staff the results and actions taken or planned



US EPA Resources

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To learn how to test for lead in drinking water in child care facilities, visit the 3Ts Sampling Field Guide and view the EPA Lead Testing video. For more detailed information about interpreting sample results for different fixture types see Module 5 of EPA 3Ts Toolkit.

1) 3Ts Plan eBuilder for Childcare Facilities: https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water#child
2) 3Ts Sampling Data eTracker for Childcare Facilities: https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water#child
3) 3Ts Sampling Collection Field Guide for Schools and Childcare Facilities: https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water#mod5
4) EPA's 3Ts Toolkit for Reducing Lead in Drinking Water in Schools and Child Care Facilities (Modules 1-7): https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water-toolkit.
5) Module 5 – Conduct Sampling & Interpreting Results: https://www.epa.gov/ground-water-and-drinking-water/3tsreducing-lead-drinking-water
6) Module 6 – Remediation & Establishing Routine Practices: https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water
7) EPA's 3Ts Flushing Best Practices: https://www.epa.gov/sites/production/files/2018-09/documents/flushing_best_practices_factsheet_508.pdf
8) EPA's Point of Use (POU) Filter Information: https://www.epa.gov/sites/default/files/2018-12/documents/consumer_tool_for_identifying_drinking_water_filters_certified_to_reduce_lead.pdf