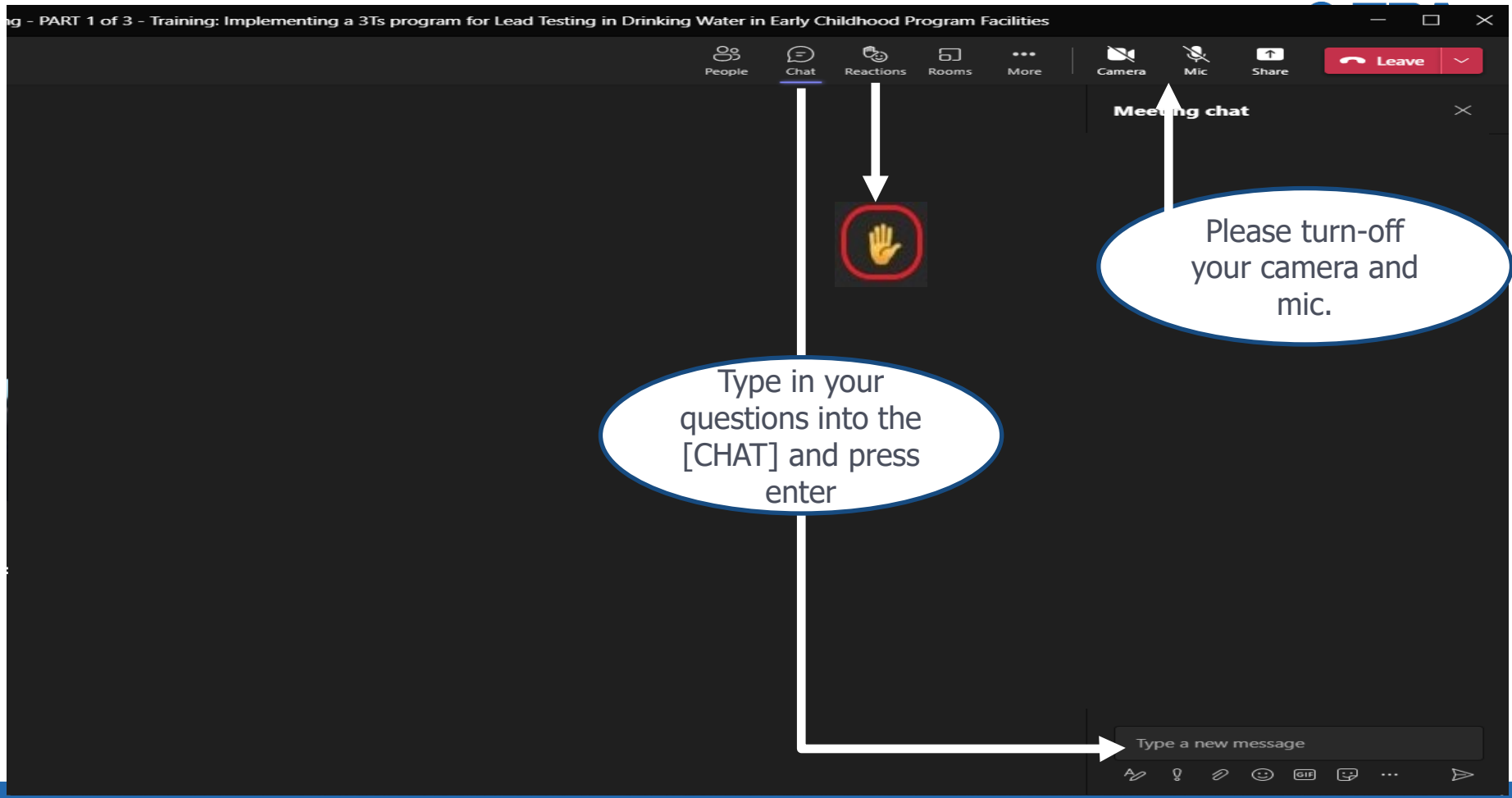
U.S. Environmental Protection Agency (EPA) and U.S. Health and Human Services (HHS) – Joint Training –

Part 2 of 3 - TESTING: Implementing a 3Ts program for Lead Testing in Drinking Water in Early Childhood Program Facilities

June 23, 2022 || 1:00 – 2:30 PM ET

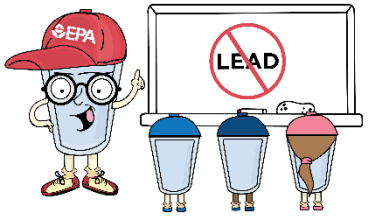
Hosted by the US EPA Office of Water, Office of Ground Water and Drinking Water

Microsoft Teams Orientation



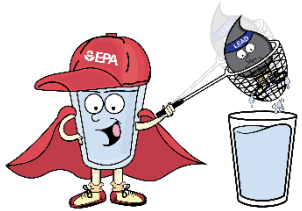
3-Part Joint Training Series

OFFICE OF GROUND WATER AND DRINKING WATER



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.

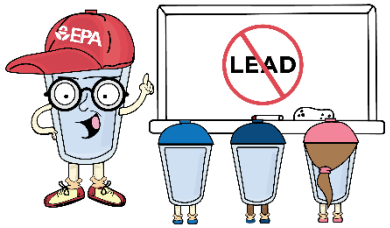
June 23, 2022 (1:00 pm – 2:30 pm ET)

- **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 2



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

- ❑ EPA Program and Funding (15 min.)
- ❑ HHS-Office of Head Start Program and Funding (10 min.)
- ❑ HHS-Office of Child Care Program and Funding (10 min.)
- ❑ Case Study – Elevate Energy Lead Testing Program in Chicago, IL (15 min.)
- ❑ Testing for lead in drinking water: Prepare – Collect - Results (30 min.)
- ❑ Q&A (Use CHAT and enter your questions. Presenters will respond as time permits.)

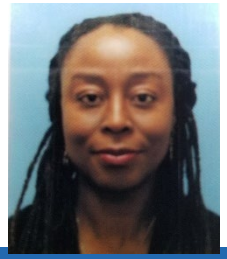
Presenters: EPA and HHS

Cindy Mack

Environmental Health Scientist

Program Manager, 3Ts on Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities

U.S. Environmental Protection Agency (EPA)/ Office of Water/Office of Ground Water and Drinking Water, Washington, DC



Ying Tan

Physical Scientist

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

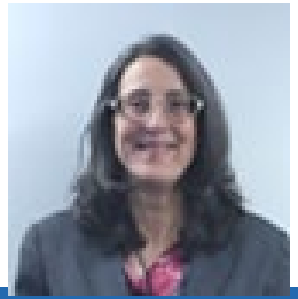
U.S. Environmental Protection Agency (EPA)/ Office of Water/Office of Ground Water and Drinking Water, Washington, DC

Dr. Ellen Wheatley

Deputy Director of the Office of Child Care

U.S. Health and Human Services/Administration for Children and Families/ Office of Child Care,

Washington, DC

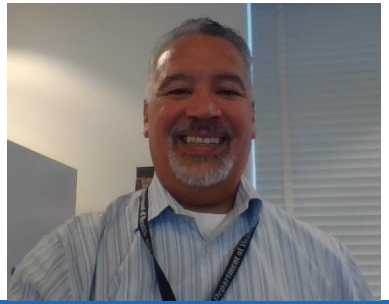


Dr. Marco Beltran

Senior Head Start Program Specialist

U.S. Health and Human Services/Administration for Children and Families/ Office of Head Start,

Washington, DC



Presenters: Illinois Lead Care Program

Brian W. Cox, P.E.

Manager

Plumbing and Water Quality Program
Illinois Department of Public Health (IDPH)
Springfield, IL

Brian.Cox@illinois.gov

Caroline Pakenham
Associate Director, Water Programs

Elevate administers LeadCare Illinois with IDPH
Chicago, IL

Caroline.Pakenham@elevatenp.org

U.S. Environmental Protection Agency
Office of Water

Background

Presenter: Cindy Mack

EPA
OFFICE OF GROUND WATER AND DRINKING WATER


THE WHITE HOUSE

BRIEFING ROOM

The Path to Achieving Justice40

JULY 20, 2021 • BLOGS

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.

Justice 40 and Water Infrastructure

- The White House Council on Environmental Quality (CEQ) and the White House Environmental Justice Interagency Council (IAC) are **collectively leading environmental justice efforts across the Federal government**, which includes Justice 40.
- EPA is actively supporting the Justice40 Initiative from a whole-of-government approach to deliver:
  - At least **40% of the overall benefits from certain federal investments to disadvantaged communities.**
    - The goal of 40% **is overarching for the entire federal government, not specific to EPA**
    - It's a government-wide initiative looking at federal investments in the areas of:
      - clean energy and energy efficiency
      - clean transit
      - affordable and sustainable housing
      - training and workforce development
      - the remediation and reduction of legacy pollution
      - **the development of critical clean water infrastructure**

JUSTICE 40

"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."

EPA ADMIN. MICHAEL REGAN

PHOTO: CAROLINE BREHMAN/CQ ROLL CALL/BLOOMBERG

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

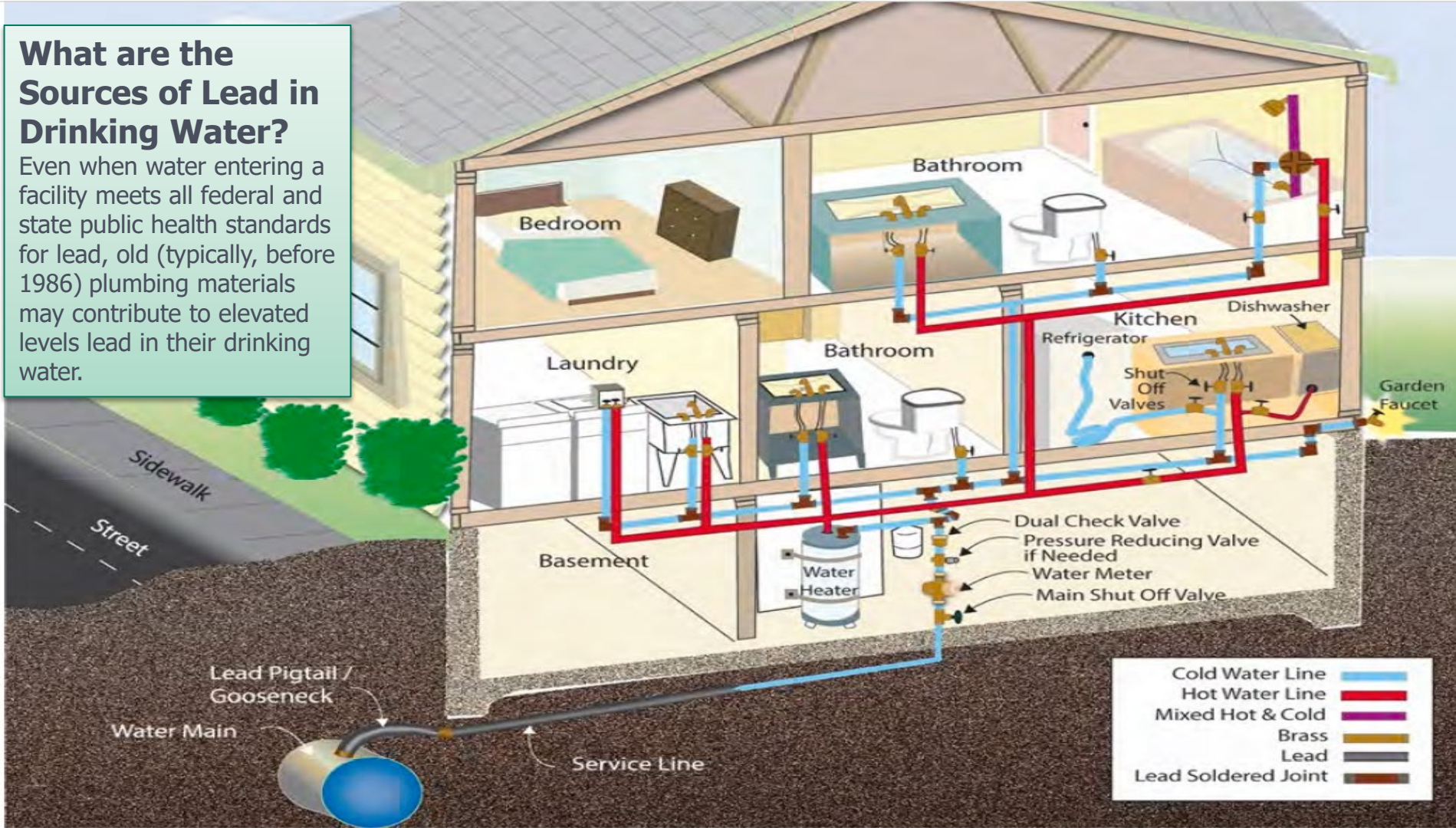
U.S. Environmental Protection Agency, Office of Water

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 levels lead in their drinking water.



How is Lead Regulated in Drinking Water?

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- EPA does not have the authority to regulate schools and child care facilities, unless it is a PWS.
- EPA regulates Public Water Systems (PWSs) – Safe Drinking Water Act.
- **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).

2011 - State Laws: Some states, tribes and local jurisdictions have 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

EPA 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
Sampling eTracker for Child Care
3Ts: Training, Testing, Ta
WHO should use this Sampling e
WHY should I use this Sampling eTracker?
HOW do I use this Sampling
2
U.S. EPA 3Ts Program
Interpreting Lead Sample Results
For Schools and Child Care Facilities
Interpreting Lead Results
0 ppb
1 ppb* and 10 pbb
10 ppb
Immediate Action Required
> (greater than) 10 ppb
Lead was detected in the sample
7
Common Drinking Water Plumbing Materials
Lead & Non-Lead in Child Care Facilities
WHY IS THIS IMPORTANT?
DOES YOUR FACILITY HAVE A LEAD SOURCE?
Potential Lead Source Piping
Lead Pipe, Lead Connectors
Other Potential Sources of Lead
Lead Solder
1
3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities:
TRAINING – TESTING – TAKING ACTION
5
U.S. EPA 3Ts Program
Training, Testing & Taking Action
Lead Sample Collection Field Guide
For Schools and Child Care Facilities
4
U.S. EPA 3Ts: Sample Collection Guide for Child Care Facilities
6
3Ts
Lead Sample Collection Video
Reduce Lead in Drinking Water in Schools and Child Care Facilities

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EPA

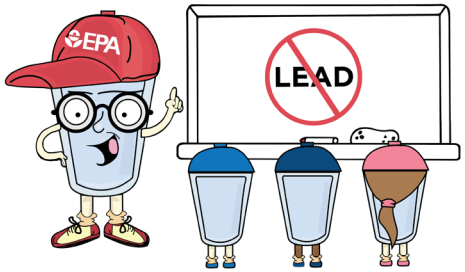
OFFICE OF GROUND WATER AND DRINKING WATER

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

EPA OFFICE OF GROUND WATER AND DRINKING WATER

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

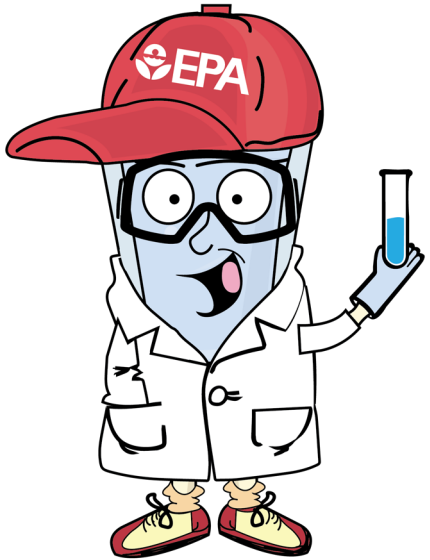
- Also known as the Infrastructure Investments and Jobs Act,
- Signed by President Biden on November 15, 2021
- Historic investment in key programs and initiatives implemented by the U.S. EPA to build safer, healthier, cleaner communities.
- Includes $50 billion to EPA to strengthen the nation's drinking 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 (BIL)

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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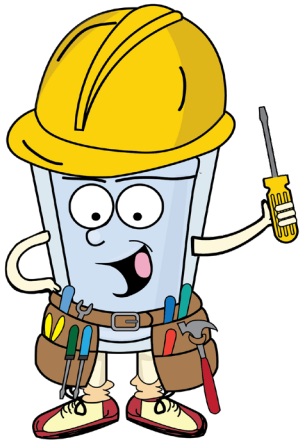
Use grant to replace, remove, install:



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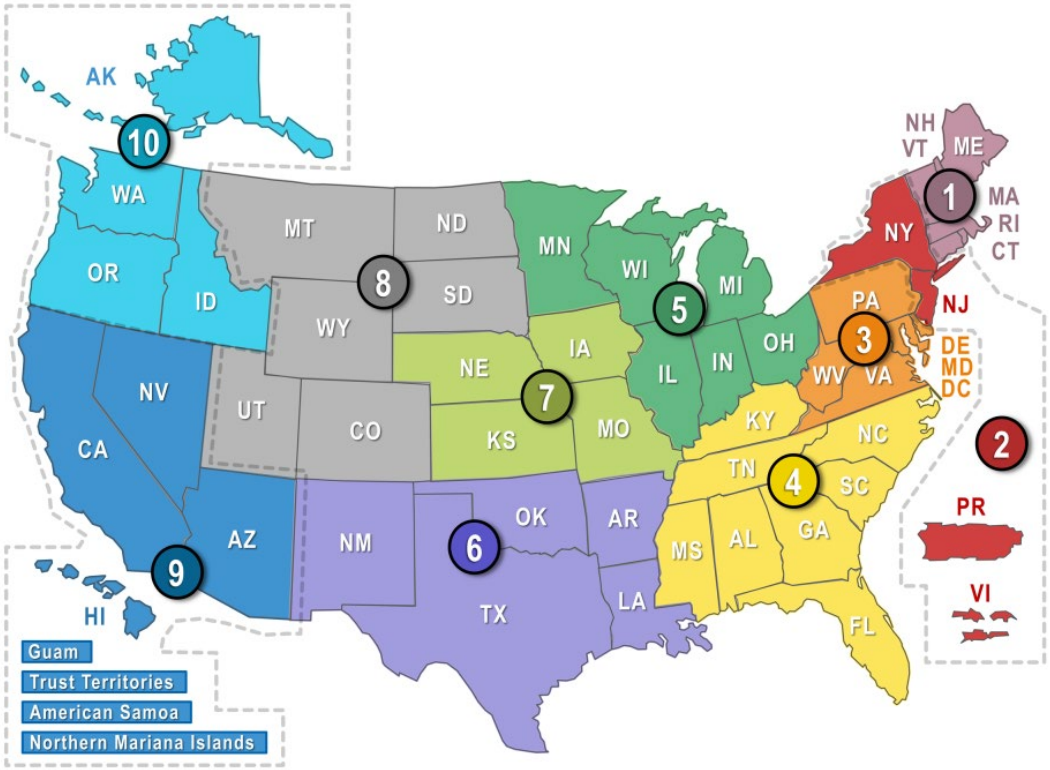
- **Purpose of Grant**
  - Reduce children's exposure to lead in drinking water
  - Utilizing EPA's 3Ts (Training, Testing, and Taking Action) model or another model no less stringent to establish best practices
- **Who Receives Funding**
  - States & Territories that have identified participation through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

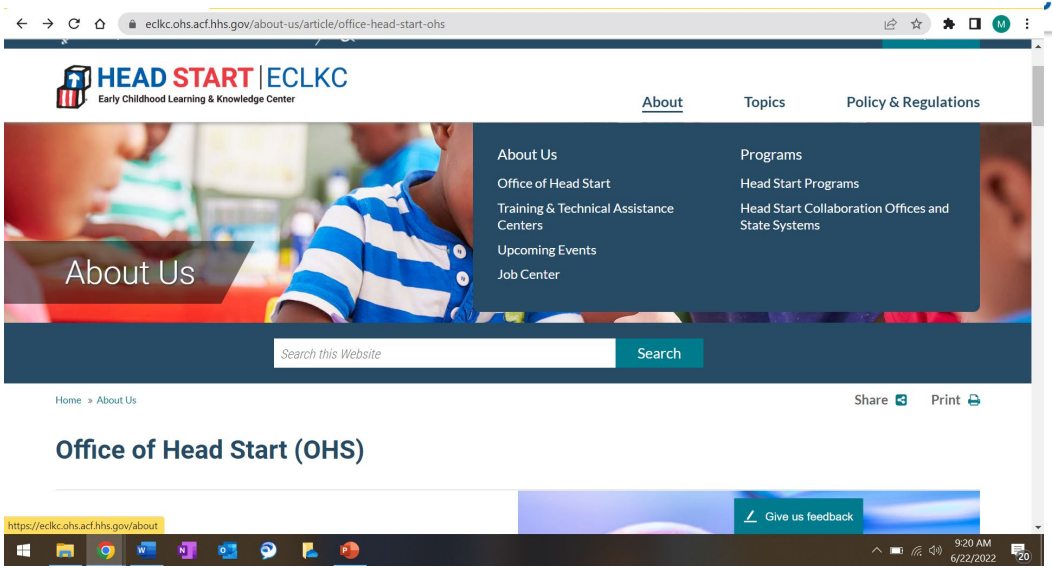
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

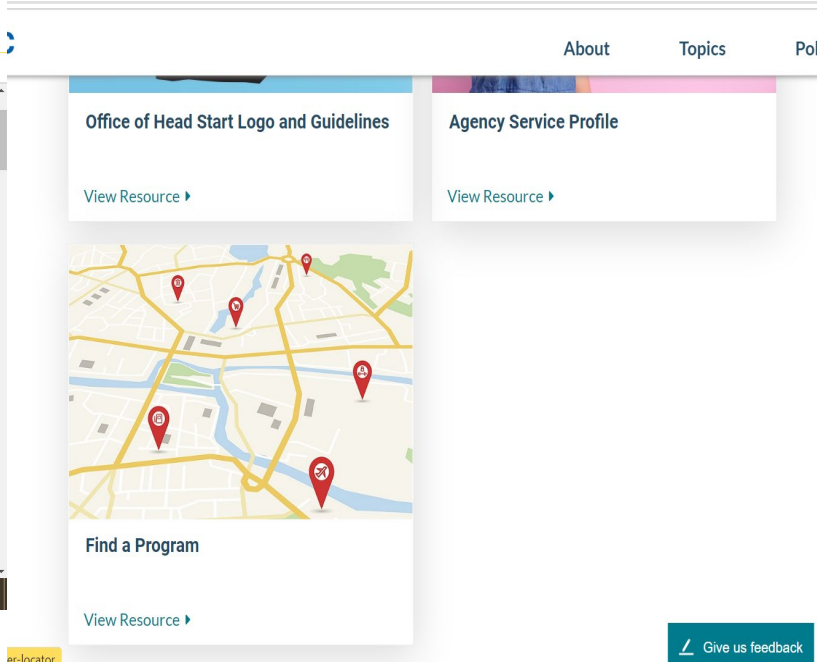
EPA

OFFICE OF GROUND WATER AND DRINKING WATER

Office of Head Start

HEAD START | ECLKC
Early Childhood Learning & Knowledge Center

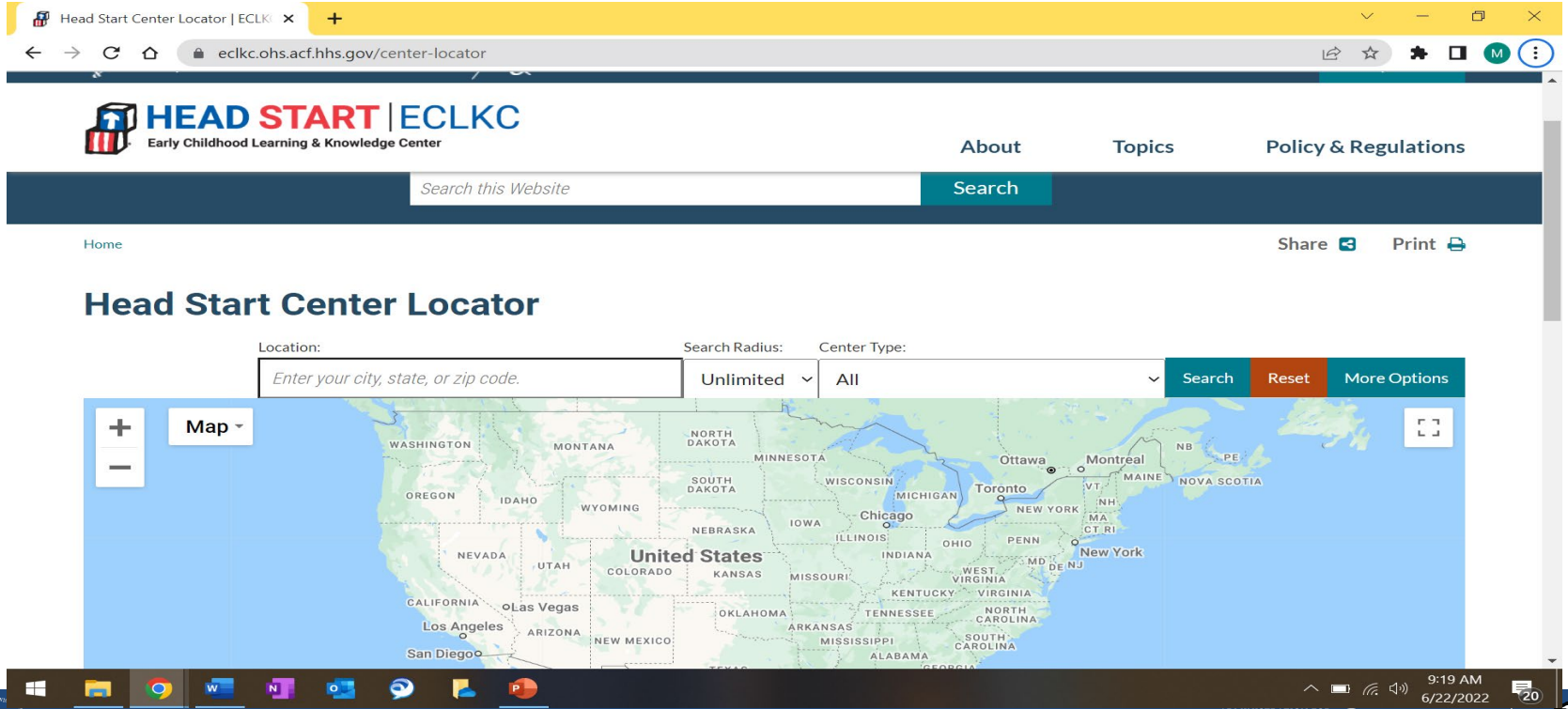




https://eclkc.ohs.acf.hhs.gov/

ADMINISTRATION FOR CHILDREN & FAMILIES
Office of Head Start

HEAD START | ECLKC
Early Childhood Learning & Knowledge Center



ADMINISTRATION FOR CHILDREN & FAMILIES
Office of Head Start

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)(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:

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

1302.47(b)(1)(iii)

(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.

Funding Guidance

❑ 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

❑ Head Start funds

❑ Program Improvement (One-Time) Requests

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

Presenter: Dr. Ellen Wheatley

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

EPA

OFFICE OF GROUND WATER AND DRINKING WATER

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

The Office of Child Care

Ellen C. Wheatley, Ph.D.
Deputy Director

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

WHO DOES CCDF SERVE?

NUMBER SERVED

Approximately 1.4 million children and 857,700 families per month received child care assistance in FY 2019.

Serves

1 in 7

federally eligible children

Child Care Providers

231,723

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 funds, 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.

VERMONT

- Vermont requires schools and licensed or registered child care providers to test their drinking and cooking water for lead.
- The State provides templates for communication with parents and staff about testing and test results

ILLINOIS

- LeadCare Illinois:
  - Empowers child care providers to address lead in drinking water and comply with Illinois Department of Children and Family Services testing requirements
  - Offers free lead safety trainings
  - Supplies child care providers with a free test kit to sample drinking and cooking water sources
  - Provides education to help child care providers minimize or reduce the source of lead, if present.

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

Case-Study

Elevate Lead Testing Program in Chicago, IL

Presenters

Brian Cox and Caroline Pakenham

LeadCare Illinois
Healthy water for healthy kids

Lead in Water Testing at Child Care Facilities in Illinois

Presented by Elevate and the Illinois Department of Public Health

Overview

- Illinois background
- LeadCare Illinois program overview
- Education and resources for testing, mitigation, and communicating with parents
- Lead test results
- Mitigation results

Fast Facts About Child Care Providers in Illinois

- There are 10,000 licensed providers in Illinois
- 96% of child care owners/directors are women
- 50% of administrators/owners are providers of color
- 70% of licensed facilities are home-based

Illinois Requirements for Child Care Providers

What Is LeadCare Illinois?

LeadCare Illinois
Healthy water for healthy kids

LeadCare Illinois is a free lead in water testing and education program for licensed child care providers in Illinois

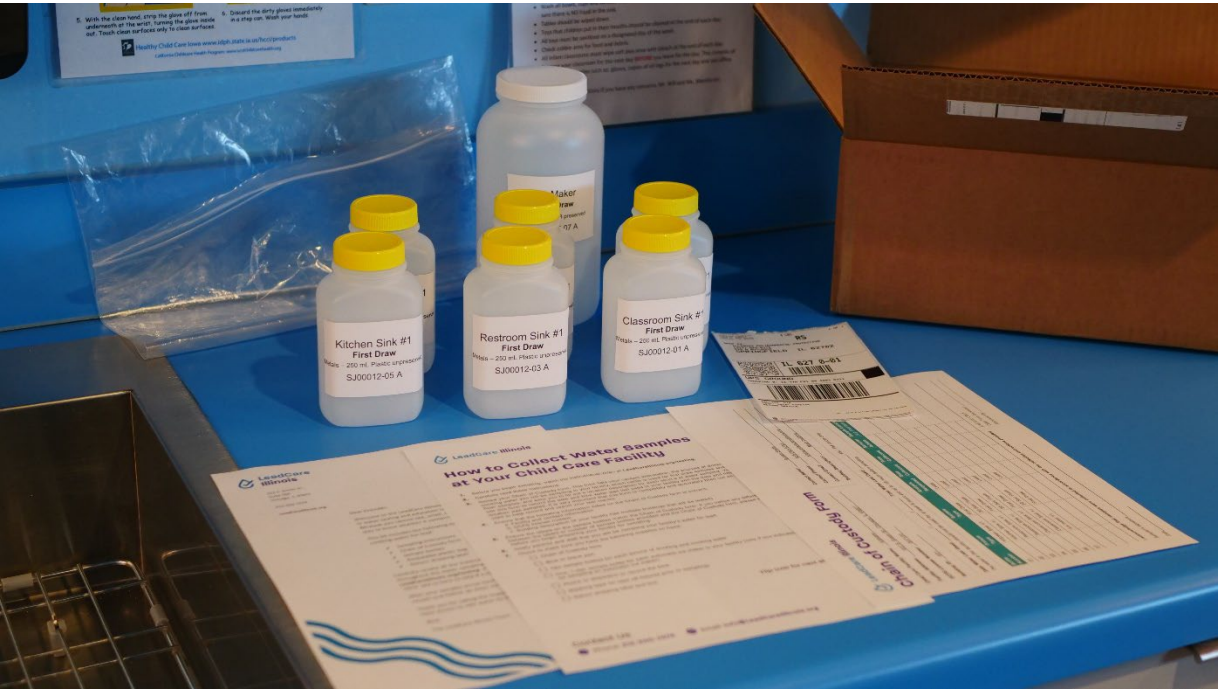
Program Offerings

Training

Testing

Support

Testing Resources



- Free lead safety training
- Call center support
- Free testing supplies and lab analysis
- Checklist and instructional booklet
- Educational videos

Locations to Test

Kitchen Sink

Restroom Sink

Classroom Sink

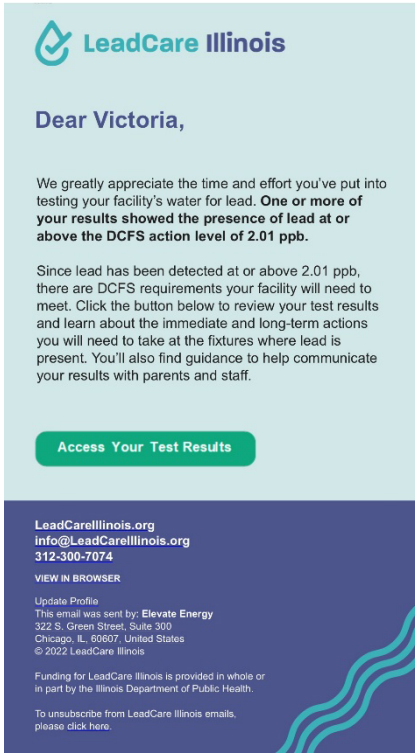
Water Fountain

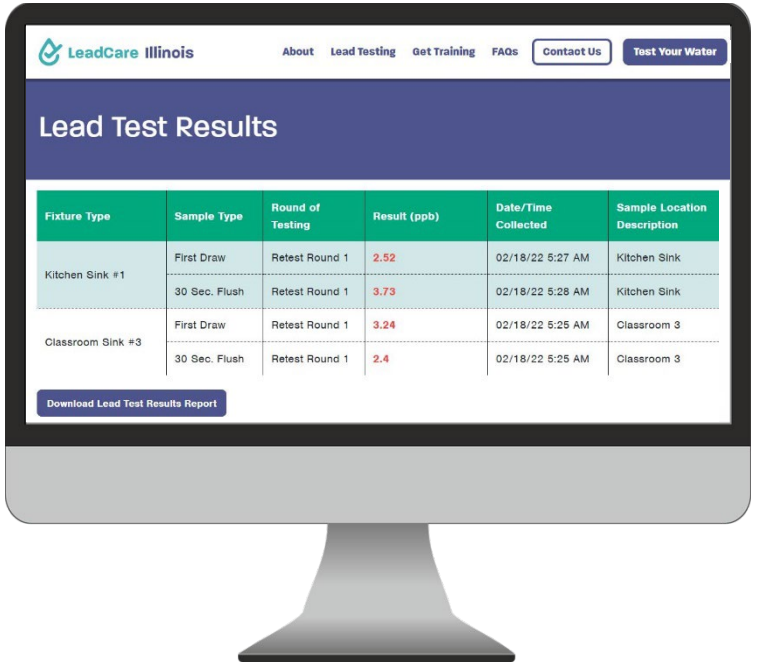
Water Dispenser

Ice Maker

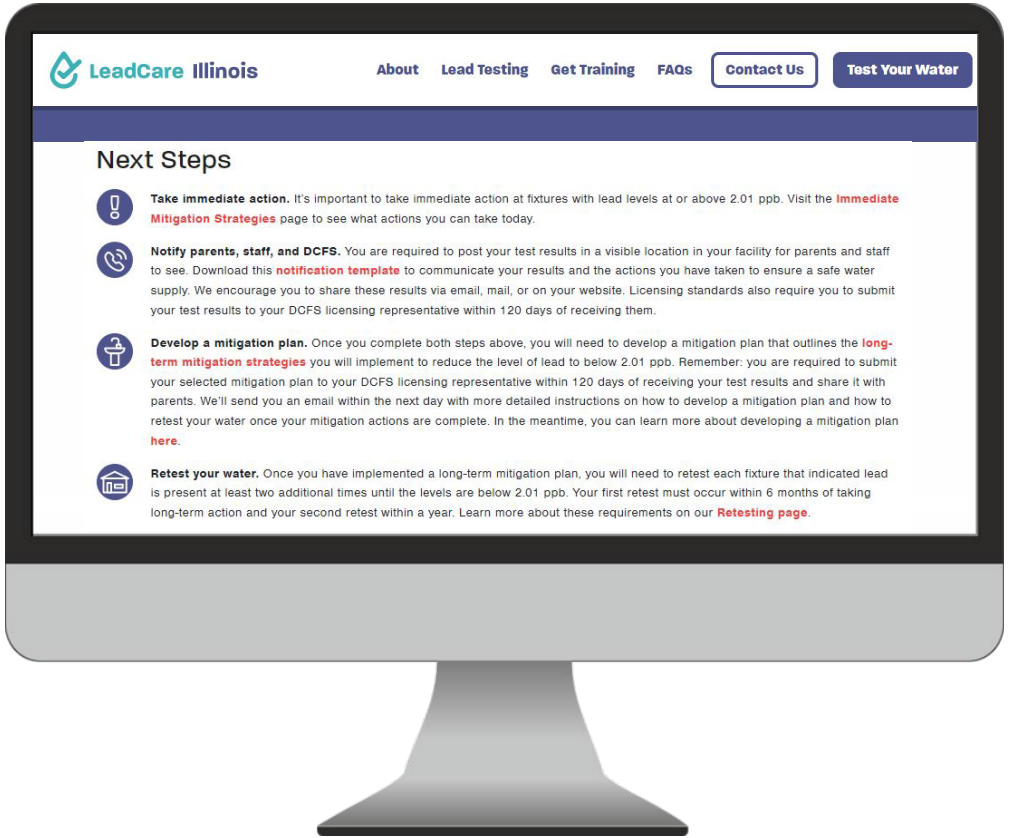
- Any cooking or drinking water source
- Fixture inventory
- Fixture photo guide

Sharing of Lead Test Results





Management Approach



Mitigation Support

- Summary of required next steps and options
- One-on-one conversation with staff
- Mitigation plan template
- Free retesting supplies
- Connection to resources (if available)

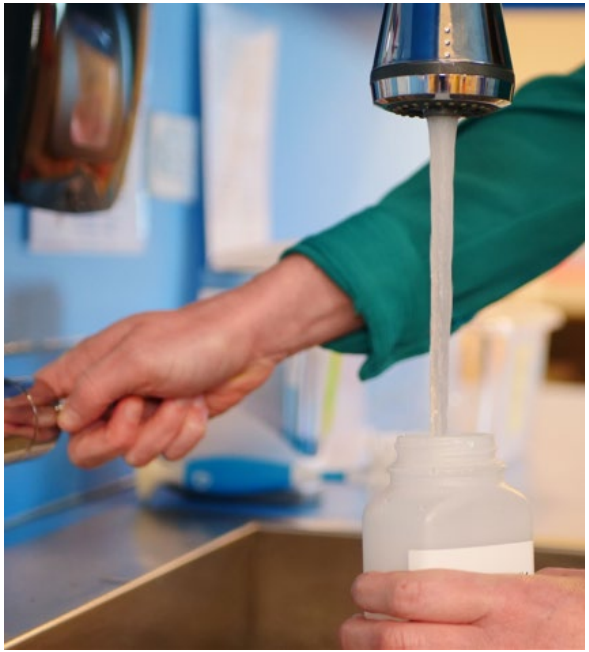
Notification Templates

Visit **LeadCareIllinois.org/notification** to use the following templates:

- Notification 1: Your Facility Will Test Its Drinking Water for Lead
- Notification 2a: Communicate Your Test Results (All Samples Below 2.01 ppb)
- Notification 2b: Communicate Your Test Results (Lead Present at or Above 2.01 ppb)
- Notification 3: Communicate Your Mitigation Plan
- Notification 4: Communicate Your Follow-Up Test Results

Provider Test Results

- 42% of providers have at least one sample at or above 2.01ppb
- Of those providers with lead:
  - 3% had a sample >50ppb
  - 20% between 10ppb – 50ppb
  - 25% had lead in more than 50% of samples



Common Mitigation Strategies

Immediate

1. Do Not Drink or Handwashing Only Signage
2. Bottled Water
3. Temporarily Remove Fixture from Service
4. Point of Use Filter
5. Manual Flushing

Long-term

1. Fixture Replacement
2. Long-term Filter Strategy

Program Impact

“Thank you for explaining how to reduce lead levels! No one has explained what to actually do about the lead in our water before.“

– Shelley, child care provider in Geneseo, IL

LeadCare Illinois
Healthy water for healthy kids

Questions?

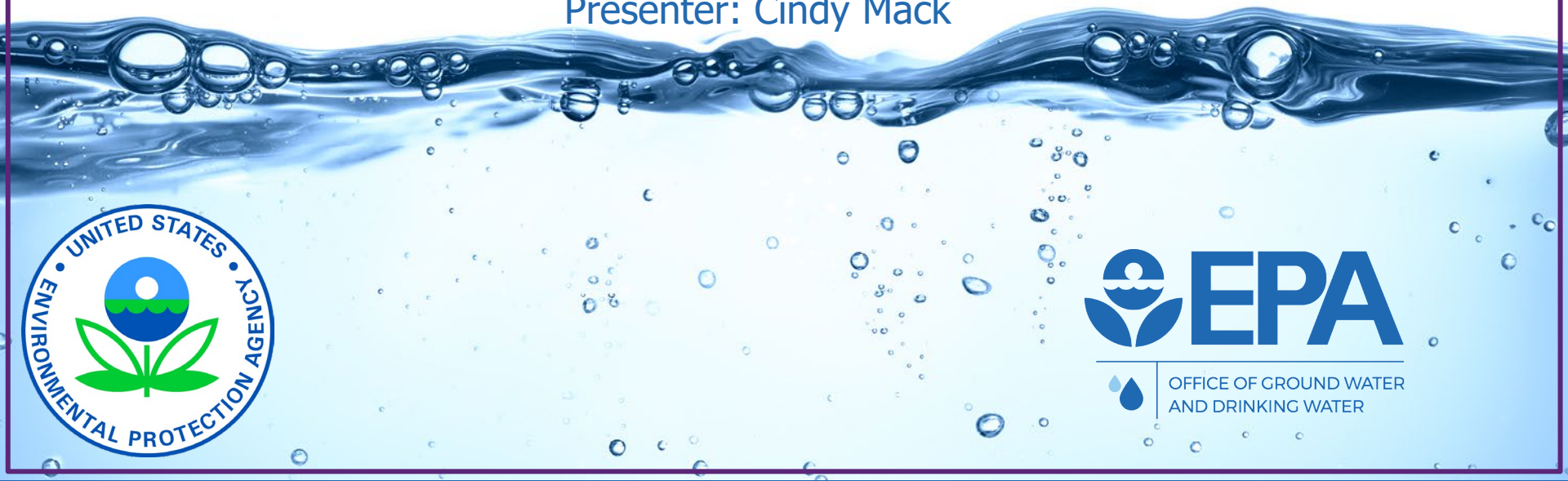
Contact Information

- LeadCareIllinois.org
- info@LeadCareIllinois.org
- 312.300.7074

U.S. Environmental Protection Agency
Office of Water

3Ts Prepare: Testing Your Water for Lead

Presenter: Cindy Mack



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Hi! My name is Thirstin.

Let's look at the 3Ts Sample Collection Video!

Hi! My name is Thirstin.

Let's look at the 3Ts Plan eBuilder to create your sampling plan before testing begins!

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Before collecting samples, build your plan with the **eBuilder** for:

(1) Communicating (e.g., methods and frequency to communicate results and actions to parents and staff);
(2) Training (e.g., who and how personnel will be trained);
(3) Testing (e.g., prioritize outlets for sampling and identify the type of lead samples to collect); and
(4) Taking Action (e.g., identify the type of short-term and/or long-term measures to take if lead is detected).

Transparency and communication are key to developing a successful program for reducing lead in drinking water in child care and early childhood facilities. Use the 3Ts program resources, including step-by-step instructions and interactive tools, to create your plan.

How Can Water Systems Help?

Your public water system/utility is a critical partner:

- May provide free lead testing to schools and child care facilities
- Offer technical guidance
- Help develop sampling plans or plumbing profiles
- Assist with sample collection and laboratory analysis
- Support you in communicating lead sample results to the community
- Help interpret results and determine potential lead sources

- For more information:
  - Lead and Copper Rule - https://www.epa.gov/ground-water-and-drinking-water/final-revisions-lead-and-copper-rule

3Ts Prepare – The Program Remediation Trigger (PRT)

When should you take action to reduce lead levels in your drinking water?

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Benchmarks

There are many benchmarks for determining when to take action to reduce lead exposure in drinking water.

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

All State/Tribal Consortia/Territory WIIN grant programs have established a PRT. 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

3Ts Prepare – Prioritizing

Sample all fixtures used for human consumption

Factors to consider when selecting and prioritizing sampling locations:

- **Oldest known fixtures** - these are more likely to contain lead (especially those installed prior to the Lead Ban Act of 1986);
- **Outlets used by children under the age of 6 or pregnant women**
  - e.g., drinking fountains, nurse's office, early childhood education classroom, kitchen, teachers' lounges;
- **Areas with known service lines or lead pipes**;
- **Areas with corroded plumbing**; and
- **Frequency of use**. The longer the water remains in contact with the lead plumbing material, the potential increases for lead to leach into the water.

For more information on prioritizing sampling site locations, refer to Module 4 in the 3Ts Toolkit and answer the Plumbing Profile Questionnaire

3Ts Prepare – Select Certified Lab

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- Use a laboratory certified by the state or EPA for testing lead in drinking water.
  - Validated by EPA or the state to use appropriate analytical techniques
  - find a list of certified labs - https://www.epa.gov/dwlabcert
  - List of considerations when choosing a lab - Module 4 in the 3Ts Manual

- Certified labs provide:
  - sampling bottles, labels, relevant paperwork, and specific instructions
  - some may offer to send qualified individuals to collect the samples
  - Many PWSs are certified labs and may provide free lead testing to child care facilities

3Ts Prepare – Develop Coding and Labeling System

- Create a coding & labeling system that will allow each unique outlet to be identified by location, type, and other relevant characteristics (e.g., room number, floor, etc.).

How Do I Label My Sample Locations?

Room Number-Outlet -Sample Type-Sample Number

N1-K-First Draw-1

Nursery (N), Kitchen (K), First draw sample

U.S. EPA

3Ts Collect: Water Samples To Test For Lead

Presenter: Ying Tan

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3Ts Collect – 2-Steps

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- Use a **2-steps sampling** procedure
  - 1st (primary) follow by a flush sample
- Identify if there is lead in the fixture (e.g., faucet, fixture, or water fountain) or behind the wall (e.g., in the interior plumbing)

Step 1

250-mL First Draw Sample

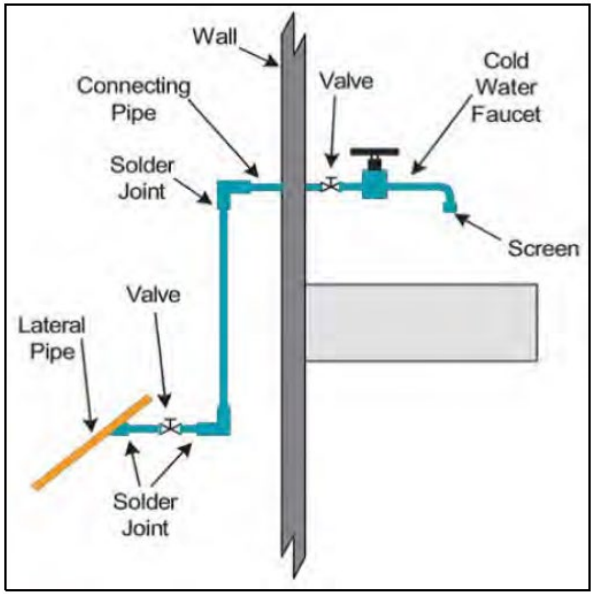
Take a 250mL first draw sample at all fixtures used for consumption to identify potential lead in the fixture.

Step 2

250-mL Flush Sample

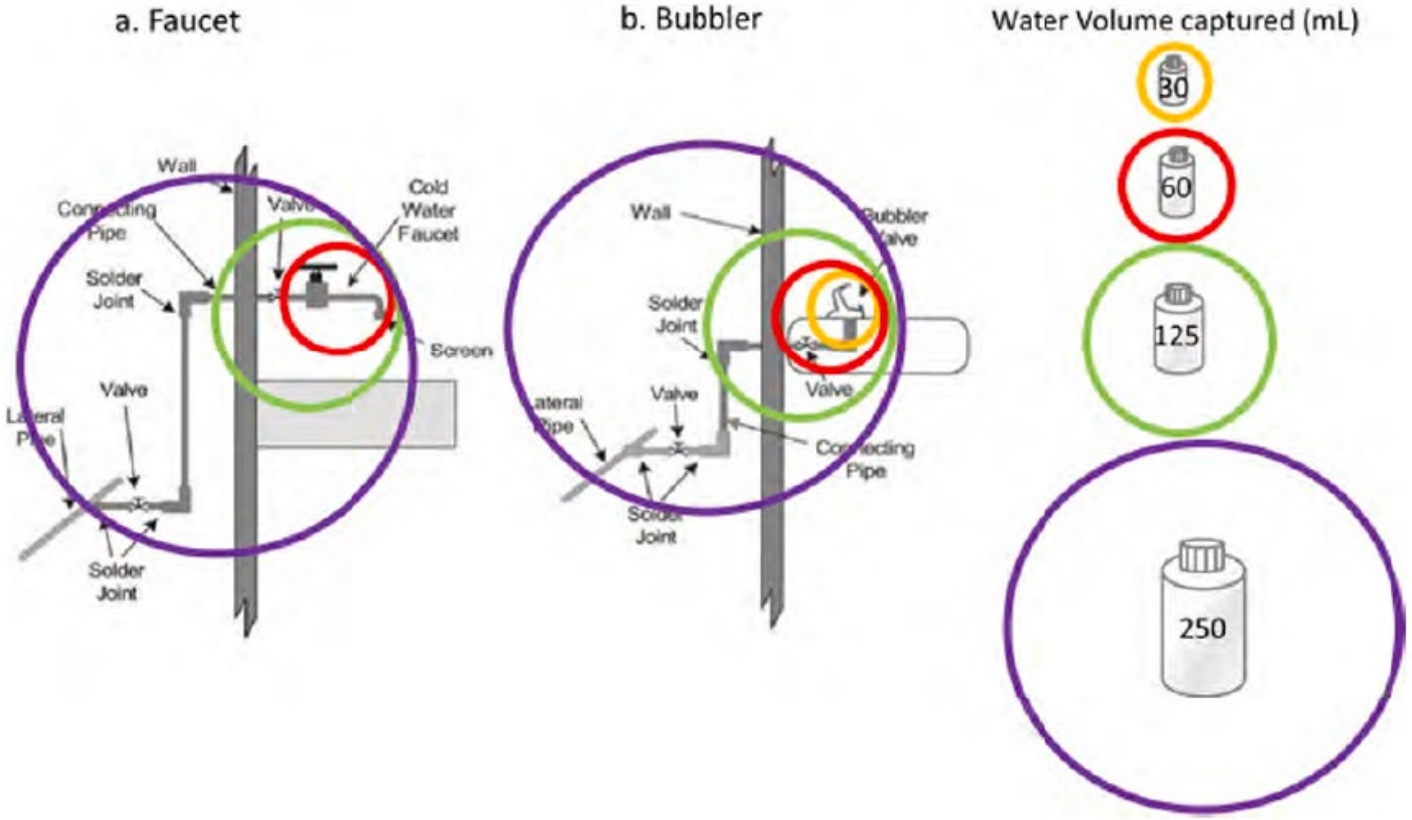
If the result of Step 1 is high, take a 30-second flush sample to identify lead in the plumbing behind the fixture.

3Ts Collect - Sequential Sample Collection



- ❑ 1st sample
  - Faucet + aerator + plumbing
- ❑ Flush sample (2nd sample)
  - Plumbing
- ❑ Flush sample (3rd sample)
  - Plumbing

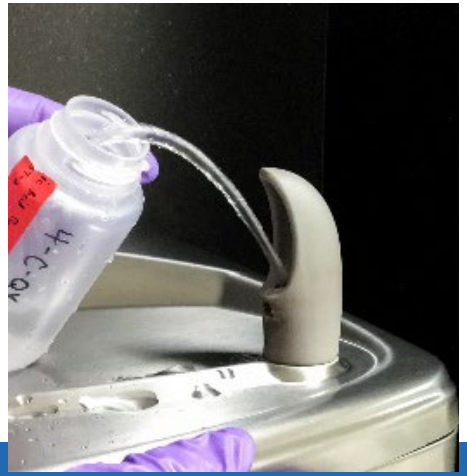
3Ts Collect - Volume Size vs Plumbing Location



Source: Triantafyllidou et al., 2021

3Ts Collect – Water Flow

- ❑ Smooth flow out of fixture
- ❑ Not splashing
- ❑ Capturing all water flowing out during collection
- ❑ Be familiar with the flow rate of the fixtures before collecting samples



3Ts - Schedule and Collect

There should be no water usage at the facility before sampling.

- ❑ The water should stagnate in the pipes, unused for 8 to 18 hours before a sample is collected
  - Normal operation schedule
  - Holidays and vacation

- ❑ When identifying dates and times for taking samples, schedule sample collection *before* the facility opens and *before* any water is used

3Ts - Testing Laboratory and Roles

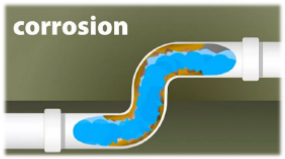
- Select state/EPA certified approved testing laboratories
  - Select primary and backup labs

- Laboratory roles
  - Personnel for sample collection
  - Testing supplies
    - Sampling bottles (wide mouth)
    - Chain-of-custody form
    - Shipping procedures
    - Shipping labels

3Ts Sample Collecti on Poster

U.S. EPA 3Ts: Lead Sample Collection Guide for Child Care Facilities

For more information on how to sample for lead, visit the in-depth video at: https://www.youtube.com/watch?v=iPF-ykBKwE.
Visit EPA's 3Ts Toolkit for more information on the modules referenced below at: www.epa.gov/safewater/3Ts.



Lead in drinking water most often results from corroded plumbing materials that contain lead.

Children are most susceptible to the effects of lead as their bodies are still developing.

Extra caution must be taken when using in infant formula.

If your child care facility operates out of a home or relies on its own well, call EPA's Safe Drinking Water Hotline at 1-800-426-4791 for help testing your water for lead.

1 Contact a Certified Laboratory

To find a list of certified drinking water labs, visit – www.epa.gov/dwlabcert or contact your state WIIN grant program.*

Go to **Module 4** for a list of considerations when choosing a laboratory.

2 Identify Fixtures to Sample

Prioritize sampling fixtures that are actively used for cooking or drinking.

3 Label Containers

Develop a labeling system to track and label your sample containers.

Go to **Module 4** for the factsheet: ***Develop a Code System for Samples.***

4 Prepare

Post signs the night before to ensure the water is not used before you sample.

Water must be stagnant for at least 8 hours, but no more than 18 before sampling.

Gather the following materials:

- ✓ Pencil and notepad
- ✓ Sampling form
- ✓ Hand wipes
- ✓ Stopwatch
- ✓ Disposable plastic gloves
- ✓ Bottled water
- ✓ Sample containers
- ✓ Map of the plumbing system

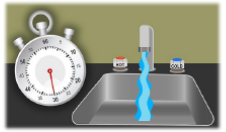
5 Conduct Sampling

Take samples **before** the facility opens and **before** fixtures have been used.

For a first draw sample, do not run the water before collecting samples.

Place the container under the fixture and then open the faucet.

Fill the container to the top – careful not to overfill it.



For a flush sample, follow the same procedures, but use a stopwatch and let the water run steadily for 30 seconds, then fill the container.

6 Pack and Ship

Ensure that your samples have been properly labeled and that they are securely packed in the shipping container, according to the instructions from the lab.

Ship your samples as soon as possible.

7 Share Results

Share the testing results with your community, including parents, students, staff, and anyone else that might use the building.

Go to **Module 1** for EPA's customizable parent letter template.

8 Take Action

If there are elevated lead levels, **take immediate action.** Contact your state WIIN grant program* for help.

Consider the following actions:

- ✓ Posting a sign at the fixture
- ✓ Installing filters
- ✓ Implementing a routine flushing program
- ✓ Removing or replacing the fixtures

Go to **Module 6** to review remediation and establishing routine practices for more information.

Helpful Resources

For more details, review the 3Ts Sampling Field Guide and other EPA resources at www.epa.gov/safewater/3Ts.

***Schools and child care facilities may be eligible for funds** to conduct lead testing and remediation through the Water Infrastructure Improvements for the Nation (WIIN) Act grant program. Contact your WIIN state program at: www.epa.gov/dwcapacity/wiin-2107-lead-testing-school-and-child-care-program-drinking-water-state-grant-program

3Ts Collect – Reminders!

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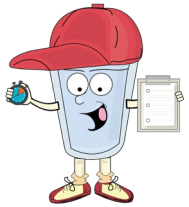
- **There is no safe blood lead level in children.** Children are most susceptible to the effects of lead because their bodies are still developing; therefore, they tend to absorb more lead from any source, including drinking water, than adults.
- **Collect samples in a 250 ml container** or container provided by a certified lab.
- **Collect cold water**
- **A sample test is a snapshot of the lead level taken at the time it was collected.** Results from one fixture cannot characterize the entire building.
- **The best way to know if there is lead in drinking water is to test for it.** Regularly schedule testing and routine maintenance are essential to reducing lead in drinking water.

3Ts Results – What to do?



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- **Make sure you know your 3Ts Program Remediation Trigger (PRT) or level of concern before you receive the lead sample results**.
  - ✓Contact your appropriate state agency and discuss your state's requirements.

- **Review your plan (which you prepared before sampling) to determine the action(s) you will take when lead is detected**.
  - ✓ Determine which fixtures or plumbing material need ***immediate*** (typically within 24 hours), ***short term*** and/or ***permanent*** actions
  - ✓ The 3Ts program recommends taking immediate action for sample results that exceed the PRT.

U.S. EPA Helpful Resources

This builds on EPA's continued efforts to provide proactive steps to protect children's health. Specific to lead testing and water quality, EPA develops tools and materials for schools and child care facilities to use.

Testing

- 3Ts Lead Sample Collection Field Guide For Schools and Child Care Facilities; 3Ts Lead Sample Collection Video for Schools and Child Care Facilities; 3Ts Lead Sample Collection Guide For Child Care Facilities: https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water (July 31, 2022)
- 3Ts Sampling eTrackers: https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water#mod7
- List of EPA Certified Labs: https://www.epa.gov/dwlabcert/contact-information-certification-programs-and-certified-laboratories-drinking-water
- EPA's Website on Certification of Laboratories: https://www.epa.gov/dwlabcert
- EPA's National Accredited Laboratory: https://www.epa.gov/lead/national-lead-laboratory-accreditation-program-list
- 3Ts Revised Manual for Reducing Lead in Drinking Water in Schools and Child Care Facilities: https://nepis.epa.gov/Exe/ZyPDF.cgi/P100VLI2.PDF?Dockey=P100VLI2.PDF
- 3Ts Toolkit: https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water

U.S. EPA Helpful Resources (cont.)

This builds on EPA's continued efforts to provide proactive steps to protect children's health. Specific to lead testing and water quality, EPA develops tools and materials for schools and child care facilities to use.

Funding

- EPA's Water Infrastructure Improvements for the Nation Act Lead Testing in School and Child Care Program Grant: http://www.epa.gov/safewater/grants
- Lead Testing in School and Child Care Program Drinking Water Grant Contact Information: https://www.epa.gov/dwcapacity/wiin-2107-lead-testing-school-and-child-care-program-drinking-water-state-grant-program

Planning

- EPA's Website on Lead in Drinking Water in Schools and Childcare Facilities: https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-childcare-facilities
- EPA's Information on Maintaining or Restoring Water Quality in Buildings with Low or No Use: https://www.epa.gov/coronavirus/information-maintaining-or-restoring-water-quality-buildings-low-or-no-use
- EPA's Consumer Tool for Identifying POU Drinking Water Filters Certified to Reduce Lead: https://www.epa.gov/water-research/consumer-tool-identifying-pou-drinking-water-filters-certified-reduce-lead
- EPA's Extended Closure Factsheets for Child Care Facilities and Schools: https://www.epa.gov/ground-water-and-drinking-water/audience-factsheets

Questions and Exit Poll

U.S. EPA/Office of Water

Office of Ground Water and Drinking Water

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Get the Lead Out!

July 14, 2022: Lead Remediation