



Vermont Lead in School and Child Care Drinking Water Progress Report Summary

Findings from the
First Round of Testing and Remediation
June 2019 – December 2021

Published in September 2022



DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DEPARTMENT OF HEALTH

Common Terms Found in the Report

- The **Vermont Action Level** is 4 parts per billion (ppb). If lead is found at or above 4 ppb, a school or child care provider must immediately take the fixture out of service and take steps to reduce the amount of lead to below 4 ppb.
- The **Vermont Health Advisory Level** is 1 ppb. There is no safe level of exposure to lead and 1 ppb is the lowest level that can be reliably measured in water.
- **Remediation** is the process of fixing a tap to eliminate or reduce the amount of lead.

Resources and More Information

- You can find more details in the full [2022 Progress Report](#).
- See the [results and remediation status](#) of individual schools and child care facilities.
- Find updates and more information on the lead testing in drinking water program for [schools](#) and [child care providers](#).

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Overview of Lead in Vermont

An explanation of why Vermont tested drinking water in schools and child care facilities for lead

Why protect children from exposure to lead?

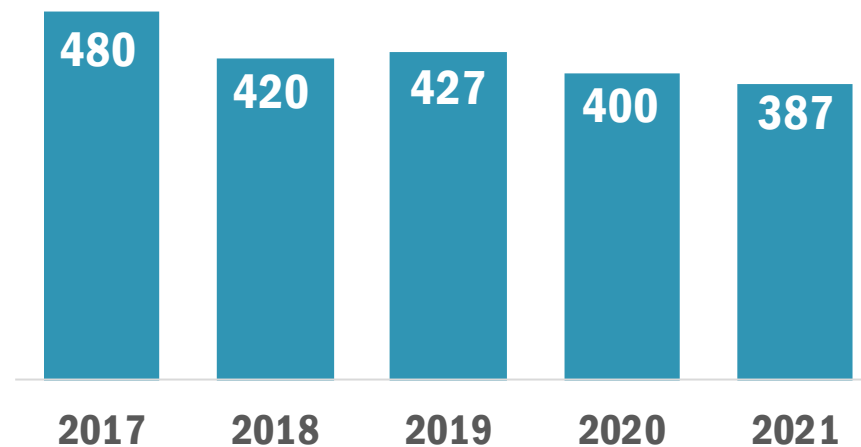
Lead poses a special risk to children because their brains are still developing, and they absorb lead into their bodies more easily than adults do.



Exposure to lead can slow children's **growth**, impair their development and **learning**, and can cause behavior problems.



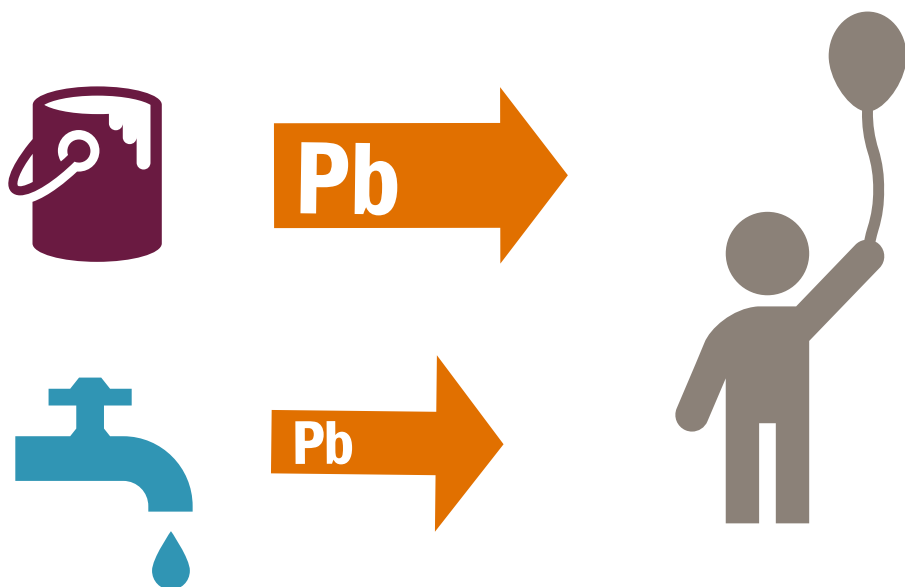
Each year hundreds of Vermont children age 6 and younger are found to have levels of lead in their blood at or above 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$).



Source: Healthy Homes Program, Vermont Department of Health

Why test for lead in drinking water at schools and child care facilities?

While a major source of **lead poisoning** in Vermont children is dust from **lead paint**, lead in older **plumbing and fixtures** can add to a child's overall lead exposure.



Prior efforts to test for lead were not comprehensive.



Only some schools and child cares were required to test some taps for lead.



Prior testing efforts used 15 ppb as a remediation level.



Act 66 requires all taps at all schools and child care facilities to be tested for lead.



Act 66 requires remediation when lead levels at or above 4 ppb are found.

What lead levels are used as benchmarks in this report?



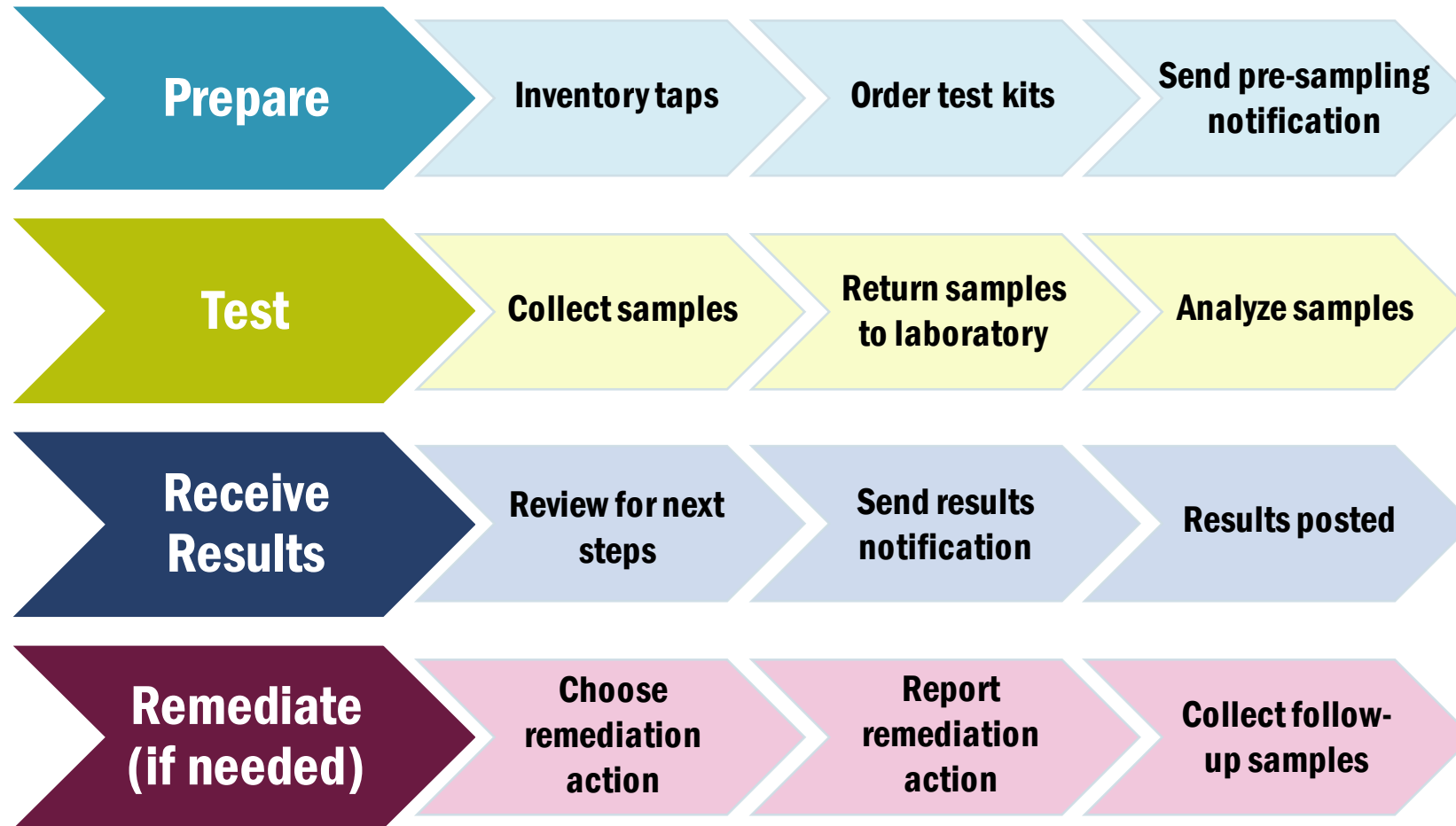
Vermont Action Level for Schools and Child Care Facilities: 4 ppb is the level at which action must be taken to reduce lead in drinking water at school and child care facilities

Vermont Health Advisory Level: 1 ppb is based on the lowest level that can be reliably measured in water (there is no safe level of exposure to lead)

What Vermont Did

A description of the testing and remediation process

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



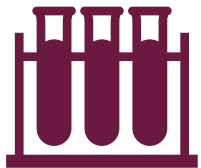
Testing Results

A summary of how many facilities and taps were tested, how many taps were at or above the action level, and how the results compare across different types of taps

Thousands of taps 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 schools, including school-based child care programs



Schools



32

was the average number of taps (up to 178 max)



75%

of schools had at least one tap at or above 4 ppb



21%

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

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

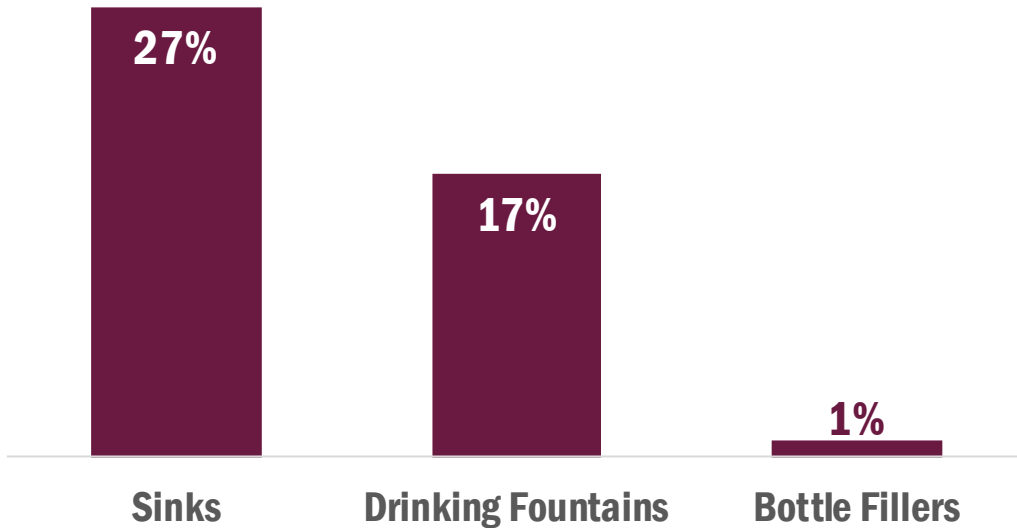


9%

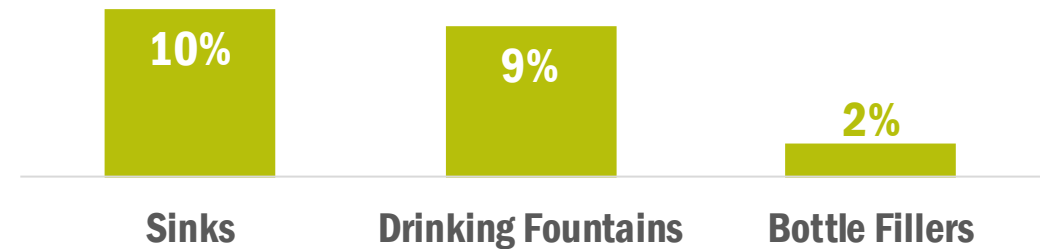
of all taps were at or above 4 ppb and required remediation

Sinks had the most lead, bottle fillers had the least

First draw samples at or above the Vermont Action Level (4 ppb) in **Schools**



First draw samples at or above the Vermont Action Level (4 ppb) in **Child Care Facilities**

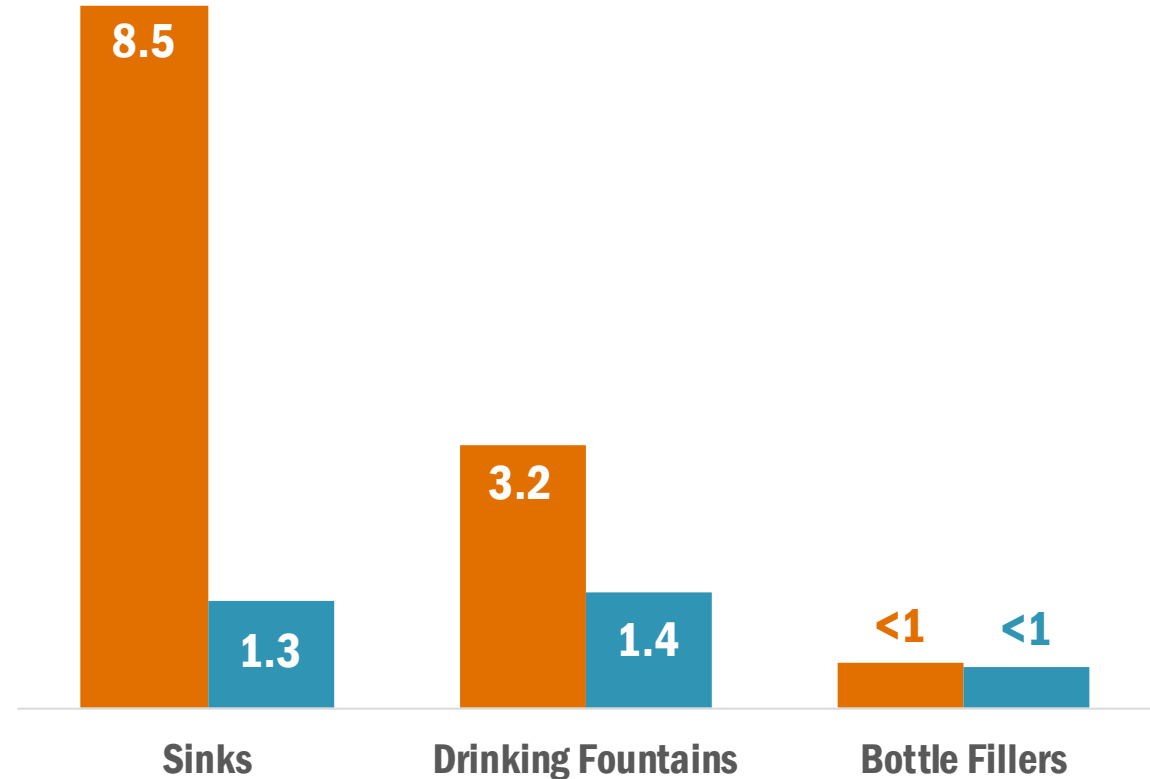


Lead was more frequently found in the **fixture**, not the **plumbing**

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

First draw samples test water coming from the fixture

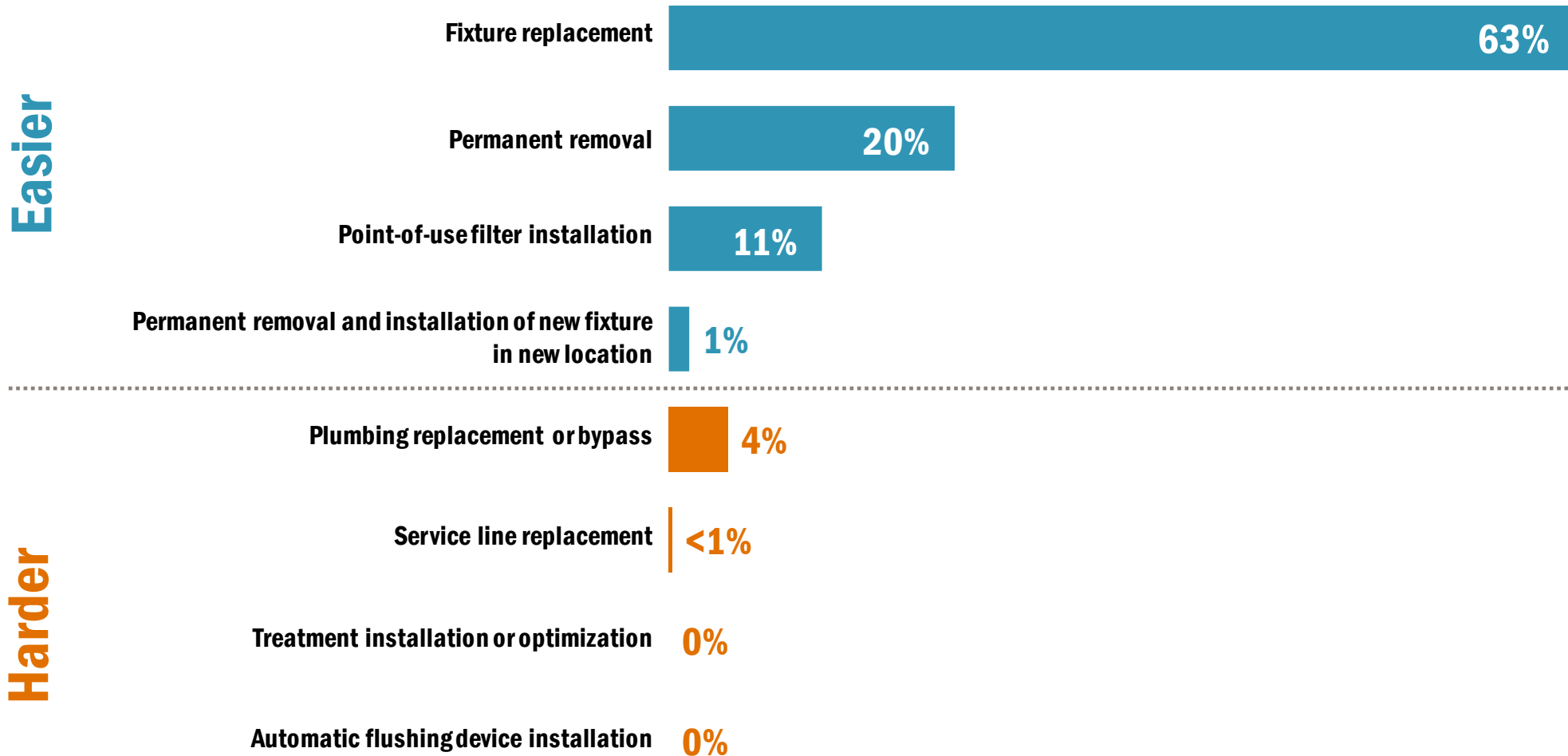
Flush samples test water coming from the plumbing



Remediation Results and Costs

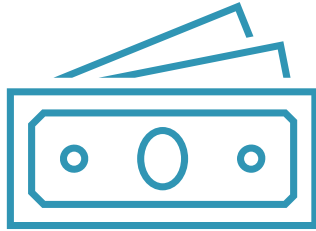
A summary of how many facilities required remediation, what remediation actions were taken, and how much remediation cost (as of February 2022)

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 Conclusion

Suggestions for keeping lead levels in drinking water low

Simple steps can help keep lead levels as low as possible



- ✓ **Remove redundant or seldom-used fixtures.**
- ✓ **Encourage the use of bottle fill stations.**
- ✓ **Permanently remediate fixtures. Do not rely solely on flushing programs or filters.**

Lead in drinking water can be reduced to below 4 ppb at a reasonable cost



- ✓ **Lead was more frequently found in the fixture, not the plumbing**
- ✓ **Most of the remediation actions reported included low-cost remediation actions**
- ✓ **Taps were successfully remediated to a lead level below 4 ppb for less than \$500 per tap 90% of the time**