

# GAO Highlights

Highlights of [GAO-21-78](#), a report to congressional requesters

## Why GAO Did This Study

Lead in drinking water comes primarily from corrosion of service lines connecting the water main to a house or building, pipes inside a building, or plumbing fixtures. As GAO reported in September 2018, the total number of lead service lines in drinking water systems is unknown, and less than 20 of the 100 largest water systems have such data publicly available.

GAO was asked to examine the actions EPA and water systems are taking to educate the public on the risks of lead in drinking water. This report examines, among other things: (1) the extent to which neighborhood data on cities served by lead service lines can be used to focus lead reduction efforts; and (2) actions EPA has taken to address WIIN Act requirements, and EPA's risk communication documents.

GAO conducted a statistical analysis combining geospatial lead service line and ACS data to identify characteristics of selected communities; reviewed legal requirements and EPA documents; and interviewed EPA officials.

## What GAO Recommends

GAO is making four recommendations, including that EPA develop (1) guidance for water systems on lead reduction efforts, and (2) a strategic plan that meets the WIIN Act requirement. EPA agreed with one recommendation and disagreed with the others. GAO continues to believe the recommendations are warranted, as discussed in the report.

View [GAO-21-78](#). For more information, contact J. Alfredo Gómez at (202) 512-3841 or [gomezj@gao.gov](mailto:gomezj@gao.gov).

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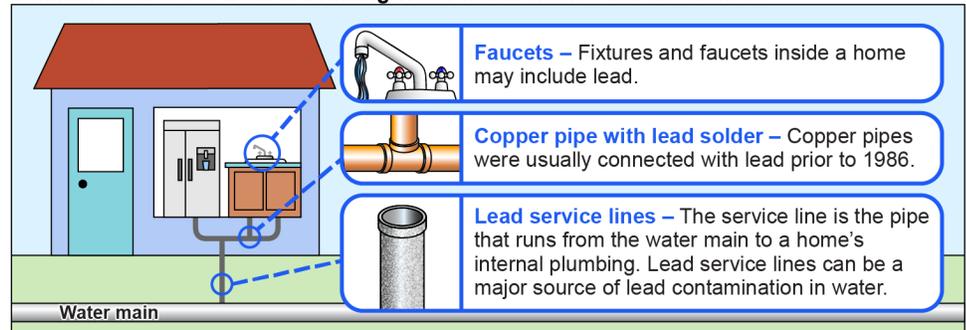
## DRINKING WATER

### EPA Could Use Available Data to Better Identify Neighborhoods at Risk of Lead Exposure

## What GAO Found

GAO's statistical analysis indicates that areas with older housing and vulnerable populations (e.g., families in poverty) have higher concentrations of lead service lines in the selected cities GAO examined. By using geospatial lead service line data from the selected water systems and geospatial data from the U.S. Census Bureau's American Community Survey (ACS), GAO identified characteristics of neighborhoods with higher concentrations of lead service lines. The Environmental Protection Agency's (EPA) guidance for water systems on how to identify the location of sites at high-risk of having lead service lines has not been updated since 1991 and many water systems face challenges identifying areas at risk of having lead service lines. By developing guidance for water systems that outlines methods for identifying high-risk locations using publicly available data, EPA could better ensure that public water systems test water samples from locations at greater risk of having lead service lines and identify areas with vulnerable populations to focus lead service line replacement efforts. (See figure for common sources of lead in home drinking water.)

#### Common Sources of Lead in Drinking Water within Homes and Residences



Source: GAO adaptation of Environmental Protection Agency information. | GAO-21-78

EPA has taken some actions to address the Water Infrastructure Improvements for the Nation (WIIN) Act requirement, which include developing a strategic plan regarding lead in public water systems. However, EPA's published plan did not satisfy the statutory requirement that the agency's strategic plan address targeted outreach, education, technical assistance, and risk communication undertaken by EPA, states, and public water systems. For example, the plan does not discuss public education, technical assistance or risk communication. Instead, EPA's plan focused solely on how to notify households when EPA learns of certain exceedances of lead in their drinking water. Moreover, EPA's plan is not consistent with leading practices for strategic planning. For example, EPA's plan does not set a mission statement or define long-term goals. Developing a strategic plan that meets the statutory requirement and fully reflects leading practices for strategic planning would give EPA greater assurance that it has effectively planned for how it will communicate the risks of lead in drinking water to the public.