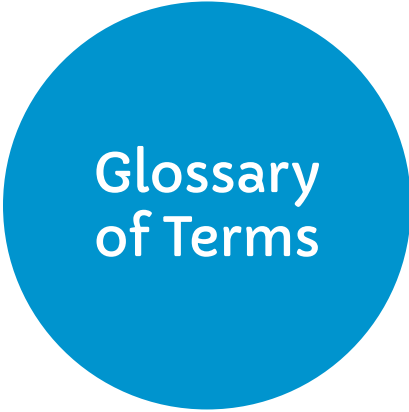


# Reducing Lead in Drinking Water in California's Childcare Facilities

Implications for AB 2370  
Program Development from  
Los Angeles County

Gregory Pierce, Silvia González and Eliza Amstutz  
*UCLA Luskin Center for Innovation*  
*First 5 Los Angeles*



## Glossary of Terms

**AB 2370:** A new law that impacts licensed child care centers by requiring the distribution of educational materials on effects of lead to parents, training for child care providers, and requires testing and remediation for elevated lead levels in drinking water.

**Action Level:** An action level indicates that the amount of lead in the water exceeds an established level. In the program specific to AB 2370, the proposed lead action level is 5 ppb. Also see *exceedance*.

**CDSS:** California Department of Social Services, the agency tasked with the development of directives for the implementation of AB 2370.

**Exceedance:** A term used to describe when the amount of lead in the water exceeds an established level and requires remediation. Also see *action level*.

**ppb:** Parts per billion is the mass of a chemical or contaminate per unit volume of water. For instance, one ppb is one part in 1 billion or 1 µg/L.

**Remediation:** A generic term used to describe cleanup activities. In the specific program for AB 2370, remediation are the efforts to reduce the concentrations of lead delivered by the facility's fixtures to below the action level (e.g., fixture replacement). Also see *response*.

**Response:** A response is any type of activity outlined in a licensed Child Care Center's Corrective Action Plan in response to a lead action level exceedance. Also see *action level*.

**Premise Plumbing:** The pipes and fixtures on private property that are the legal responsibility of property owners, not the water system.

**Schools Program:** Used to describe the program that requires California's public K-12 schools to test their water for lead, as ordered by the Legislature in 2017 under AB 746.

**Water Board:** A shorthand for the California State Water Resources Control Board, the agency charged with recommending water sampling guidelines for the implementation of AB 2370.



# Motivation

This brief presents the key findings and recommendations from a research project on safe drinking water made possible by a strategic partnership between the [UCLA Luskin Center for Innovation](#) and First 5 Los Angeles. The partnership was motivated by the passage of California [Assembly Bill \(AB\) 2370](#) (2018), which mandates testing of drinking water for lead in childcare facilities built before 2010 across California by January 1, 2023. The partnership was formed to support the planning and implementation of a successful lead testing program for licensed child care sites in Los Angeles County, particularly in [Best Start areas](#).

Experts including the State's Office of Environmental Health Hazard Assessment deem zero or near-zero lead exposure as the only true public health standard for young children. Given the acute threat which lead exposure in drinking water poses to young children and their families, and that regulatory standards for lead in drinking water for the general population in California remain well above zero, the passage of AB 2370 represents a meaningful step toward further protecting children's health and life opportunities.

Our project to inform AB 2370 implementation is particularly important to achieving the systems change vision of First 5 LA that "by 2028, all children in L.A. County will enter kindergarten ready to succeed in school and life" as the effects of lead cannot be reversed. Even [low levels of lead in children](#) have been connected to loss in IQ, hearing impairments, and learning disabilities. These exposures can lead to [decreased ability to focus in school and academic underperformance](#). The results of the partnership's research and engagement activities are highlighted below and allow us to make several recommendations to help establish a robust lead testing and remediation program in child care sites throughout Los Angeles County and the state. Enhancing long-term trust in tap water is all the more essential and urgent in a public health crisis such as presented by COVID-19.

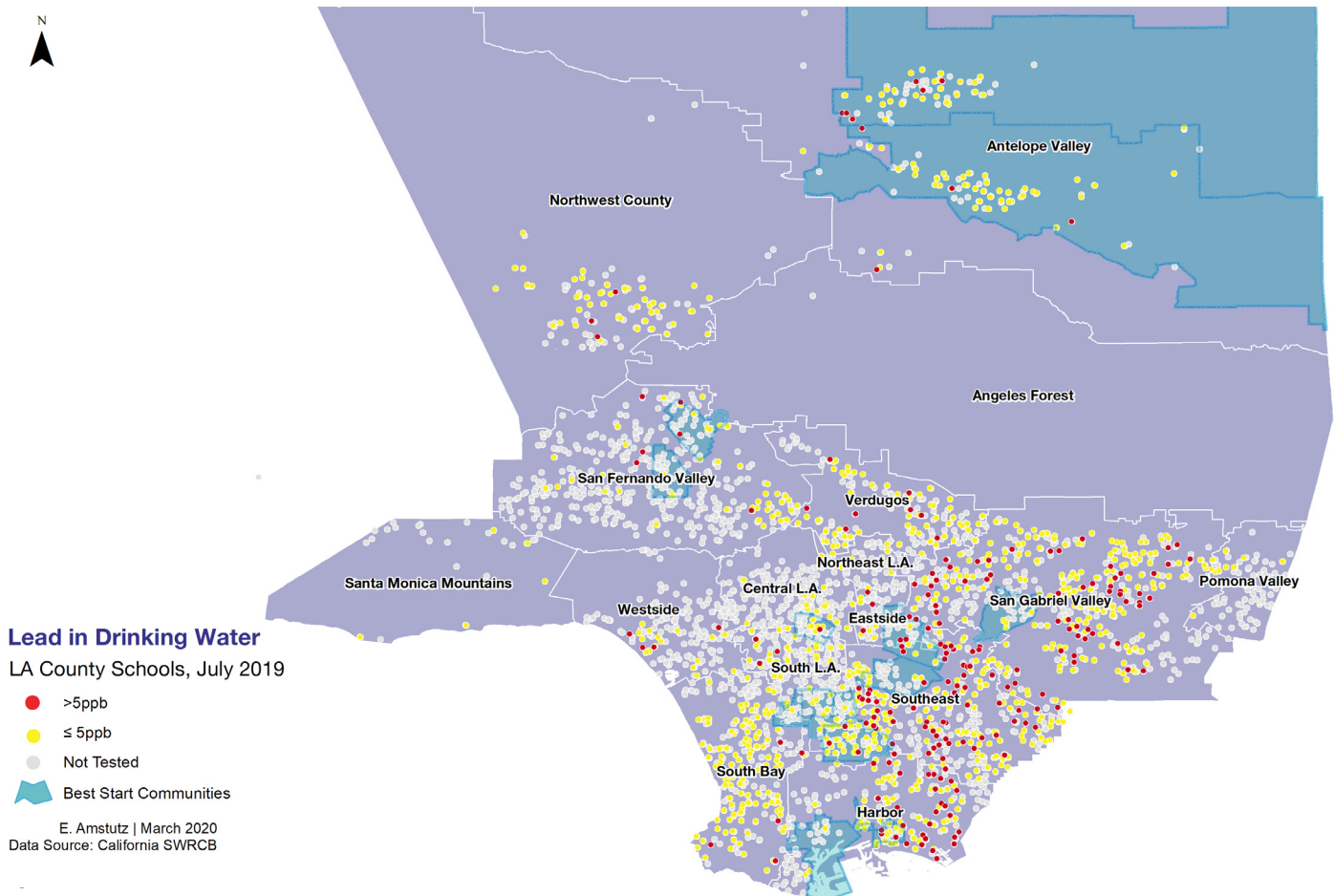
# Research Highlights

The passage of AB 2370 followed a clear precedent in California, as the State Water Resources Control Board mandated testing for lead in drinking water in all secondary and primary schools in 2017 ([AB 746](#)). We base our analysis and recommendations for AB 2370 program implementation on:

- Results of the implementation of the lead testing program in public schools in Los Angeles County, particularly Best Start communities, and on
- Findings from a series of engagement activities we convened with stakeholders from child care centers, environmental and environmental justice advocates, drinking water providers, and members of regulatory and academic communities.

## Lessons from Water Testing in K-12 Schools

[AB 746](#) required community water systems serving public K-12 schools to collect and analyze drinking water samples from up to five taps at each school that requests sampling before July 1, 2019, and for remediation to be carried out for any testing points at schools which exceed 15 parts per billion. Further, under AB 746, water systems are responsible for contacting schools in their service area, developing



a sampling plan, and conducting sampling. By contrast, draft guidance for testing in licensed childcare centers is more protective of public health than the schools program because it requires testing of all water points used for drinking purposes, and requires remediation for any test found to be above a more aggressive action level of 5 parts per billion (ppb). But water systems are not obligated to assist with sampling or testing.

“This will benefit our kids and our health and brings awareness to the community,”

– Parent from Compton

Even with the comparatively lower standards for the schools program and the role of water systems as samplers, we found that by July 2019, only roughly 5,496 school tap points were tested for lead in Los Angeles County across 1,144 K-12 schools. This indicates that less than half of the County’s K-12 schools had their water tested for lead (41%) in the initial compliance period.

Of the schools that completed testing, about 1 in 5 (18%) recorded lead levels over 5 ppb, the action level that appears most likely to be issued in the implementation directives to licensed child care centers under AB 2370. In the five Los Angeles’ Best Start Regions, the share of schools reporting more than 5 ppb was slightly lower (12%). The Antelope Valley Region tested the largest share of schools, whereas the Central/East Los Angeles Region had the greatest share of schools with at least one tap testing over the 5 ppb threshold. Other states, such as North Carolina, where lead testing has been performed in centers have also found a need for intervention in more than 10% of tested centers.

If lead tests in California’s licensed child care centers matched the results of other states—with over 10% of centers having identified lead issues above 5 ppb—the cost to address these issues would be several times the current available funding. Even more funding would be needed to facilitate recurrent testing, as required in AB 2370, and to meet the eventual goal of a near zero ppb standard which is closest to public health recommendations.

## Cross-cutting Findings from Stakeholder Engagement

Our convenings, along with other stakeholder engagement and background research, allowed us to identify top opportunities and challenges for the implementation of lead testing in drinking water in Los Angeles County child care centers, particularly in First 5 LA’s Best Start Regions. We highlight findings on five major challenges and opportunities that arose during our various engagement activities with child care providers and early child care education advocates, environmental and environmental justice advocates, drinking water providers, and members of regulatory and academic communities.

### 1. Universal Support of Stricter Standards for Testing for Lead in Drinking Water in ECE Settings as currently envisioned:

Across all convenings, participants understood the importance and motivation

for the passage and implementation of AB 2370 as a positive step forward to protecting the health of young children. This included support for a stricter standard (5 ppb) for what constitutes an action level for lead in drinking water than the level used in the schools program and in water systems (15 ppb) generally. The state agencies involved have expressed openness to including an aspirational stricter standard (1 ppb) in future program implementation.

**2. Confusion Regarding the Legislation (AB 2370):** On the other hand, there remains widespread confusion about:

- a. how AB 2370 relates to previous state legislative efforts to ensuring safe drinking water in ECE settings, and
- b. the scope of requirements placed on child care centers and water systems for various aspects of implementation stipulated in the law.

**3. Common Concerns About Program Design and Implementation:**

There were several common concerns about program design and implementation given that water systems were not assigned a role in the initial legislation. This topic also produced the widest variety of stakeholder comments. Some of the most common comments related to:

- a. the exact procedures required for lead testing and remediation as well as how and how much centers were expected to pay for these services,
- b. which centers are required to test their water and if all water usages and taps need to be tested, and
- c. general concern over who would undertake oversight and enforcement of compliance.

**4. Desire for More Formal Stakeholder Engagement and Public Participation in Program Design and Implementation:**

There is widespread desire for a formal stakeholder engagement process and opportunities for public participation in state agency program management. Agencies involved in developing and implementing a program based on AB 2370 have not yet developed a sufficiently-robust and inclusive public participation process. The lack of a well-advertised, formal process has limited the input of child care providers and child care advocates in the formulation of agency directives and guidance.

**5. Universal Need for More Technical Assistance Tools and Funding to Ensure Program Success:**

The last major finding was a universally-recognized need for more technical assistance tools and funding to be made available to centers beyond those stipulated in the authorizing legislation in order for program implementation to succeed.

“The [participation] process is convoluted, it is different from other processes; send emails, send letters; go on record,”

– Environmental Advocate

“Will we be left to read the results? How do we interpret the results? We need someone to walk me, talk me through it, the new requirements.”

– Child Care Provider in South LA

# Implications for Safe Drinking Water in Child Care Settings

Based on our findings, we make several recommendations to help establish a robust testing and remediation program for lead in water at child care sites.

## Top Recommendations for Success Based on Findings

1. Given their unique capabilities and experience, water systems would ideally be involved in directly performing sampling and testing in child care centers, as in the schools program.
2. In the absence of a formal role for water systems in program implementation, more guidance should be given by the Water Board or contractors to child care centers on how to choose third-party testers and plumbers and the expected costs of these services.
3. In light of implementation delays in the schools program, clearer compliance goals should be set and reported by CDSS to ensure that all centers have their facilities tested in a timely manner.
4. Similarly, centers that identify lead exceedances need more direct assistance from state agencies or their contractors in order to quickly return to full compliance in a cost-effective manner, rather than just being instructed to do so.
5. To ensure drinking water equity in California, the same higher standards of testing and actionable lead levels proposed for childcare centers should be employed in the school lead testing program, as well as adopted for testing in family child care homes.
6. To ensure water affordability and public health in urban areas such as Los Angeles, parallel education and training measures should be undertaken to ensure that the program does not increase tap water mistrust where trust is merited. This is all the more essential during crises such as presented by COVID-19.
7. In light of the limited public engagement to develop draft directives to date, CDSS should make opportunities for formal stakeholder engagement and public participation more evident and lay out a concrete timeline for public comments and implementation.
8. The state legislature and counties should provide substantially more funding for testing, interim water, and long-term remediation beyond the existing \$5 million grant program. Funding could be allocated either through existing public sources such as Water Board SAFER funding and LA County Measure W, or through designated new sources.



## Acknowledgements

A special thank you to First 5 Los Angeles and to our program officer, Hector Gutierrez, for his time and guidance on this project and report. Our research and engagement would not have been possible without First 5 LA's generous support.

We also extend our gratitude to those that made our convenings possible. We thank Compton-East Compton Best Start Community members who are committed to uplifting the voices of communities that are often excluded from the policy and planning process and who also participated in our convenings. We thank the numerous child care providers, advocates, and water agency representatives who took the time from their busy schedules to participate. And to our community partners that made the convenings possible: Grace Weltman and Luis Melliz from Communities in Motion, Jessica Guerra and Ilyssa Foxx from the Child Care Alliance of Los Angeles, Lizette Jones from The Salvation Army Siemon Family Youth & Community Center, and our interpreter Pilar Rodríguez.

To the staff at the California Department of Social Services and the California Water Board who provided feedback on the development of our risk assessment tool, and answered many of our background inquiries. To Elle Hoxworth, Senior Legislative Aide to California Assemblymember Chris Holden, the sponsor of AB 2370. We also thank Melissa Bahmanpour of Rivers in Action for reviewing and providing feedback on this report.

To numerous UCLA Luskin staff and students, including Christian Zarate, Lennox Chaiveera, Kyra Gmoser-Daskalakis, and Irving Angeles. And a special thank you to Allison Iguchi for the design and layout of this brief.

As a land grant institution, the authors acknowledge the Gabrielino and Tongva peoples as the traditional land caretakers of Tovaangar (Los Angeles basin, Southern Channel Islands), and that their displacement has enabled the flourishing of UCLA.





