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DISCLAIMER
The views expressed herein are those of the
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>4</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>6</td>
</tr>
<tr>
<td>METHODOLOGY</td>
<td>7</td>
</tr>
<tr>
<td>FINDINGS</td>
<td>10</td>
</tr>
<tr>
<td>CONCLUSION AND RECOMMENDATIONS</td>
<td>13</td>
</tr>
</tbody>
</table>

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EXECUTIVE SUMMARY

IN 2012, GOVERNOR EDMUND G. BROWN JR. signed Assembly Bill (AB) 685, making California the first state in the nation to legislatively recognize the human right to water, a culmination of years of grassroots water justice advocacy efforts. In 2016, the State Water Resources Control Board adopted a resolution identifying the human right to water as a top priority and core value of the state’s Water Boards. Despite these largely symbolic policies, it was not until 2019, when Governor Gavin Newsom signed SB 200, that an annual appropriation was made to improve access to safe, clean, and affordable drinking water for all Californians over the next decade. California is still far from achieving safe, affordable, and accessible water for all as a recent audit of the Water Boards found that 1 million Californians live with tap water that does not meet water quality standards for drinking, cooking, and bathing.

Compounding these inequities is the growing problem of tap water distrust and disuse, even in areas where drinking water meets or exceeds health-based water quality standards. The consequences of distrust include adverse health and economic and environmental consequences from heightened consumption of sugar-sweetened beverages, bottled water, and other tap water alternatives. Latinos are the largest, youngest, and fastest-growing ethnic minority group in the United States, yet there is limited research on the factors influencing distrust among this population, its consequences, and solutions to address distrust in this community.

In this brief, we present findings from an exploratory study with parents and caregivers in Kern County to better understand tap water usage, factors influencing tap water disuse, and potential solutions to address distrust, including a tax on sugar-sweetened beverages. We conducted the study in partnership with First 5 Kern located in Bakersfield, California. We used a community partnership research model and employed a mixed-method approach that combined online focus groups and an online exploratory survey to draw qualitative findings to inform future statewide data collection efforts.

The basic conclusion of this study is that meaningful shifts in the purchase and consumption of tap water will be realized only when residents can trust and use tap water to meet basic needs. Ensuring tap water safety, and addressing distrust and disuse is now more critical than ever given the Biden-Harris Administration’s $9 billion investment to help communities on the frontline of PFAS (“forever chemicals”) in their drinking water as well as their March 2023 announcement of a national standard to combat PFAS in drinking water. Only then will impacted communities truly benefit from the health, economic, and environmental benefits these infrastructure investments will offer.

Our analysis of focus group conversations and survey findings yielded four key takeaways to inform policy decisions:

1. Regardless of race and ethnicity, most caregivers reported not trusting their tap water. Caregivers cited concerns over poor residential plumbing, negative health experiences of friends and family with tap water, and not trusting local water systems to provide safe drinking water. Caregivers said improvements in residential premise plumbing would increase their trust in tap water.

2. Fear of tap water is associated with past experiences, distrust of water providers, and aging infrastructure. About 60% of all survey respondents reported some form of bad experience with tap water in or outside their homes. Similar proportions were observed for Latinos (68%).
3. Latino caregivers reported not drinking their tap water at higher rates than others. Caregivers said solutions such as at-home tap testing and access to water filtration systems would increase access to and consumption of tap water.

4. Regardless of race and ethnicity, most caregivers said a tax on sugar-sweetened beverages would be regressive or unfair. However, they also expressed that a tax would decrease their consumption of sugar-sweetened beverages slightly and that having a say in how revenue would be spent would increase support for such a tax. Caregivers also said revenue from a tax on sugar-sweetened beverages should be used to improve local water system infrastructure.

**Based on our findings, we recommend the following to address tap water distrust and disuse as a strategy to achieve safe, affordable, and accessible water for all Californians:**

1. Local and state governments should provide and promote programs to improve residential premise plumbing. Research participants emphasized concerns about their household plumbing and that improved premise plumbing would increase their tap water trust and consumption.

2. Given distrust of water systems, decision makers should fund trusted community-based organizations to design and implement evidence-based public education campaigns and tap water testing programs to increase tap water usage based on the unique drivers of distrust in their local communities.

3. Fund local community-based health workers or “promotores” programs. This model is currently underused but could play a role in facilitating access to drinking water resources.

4. Put community spending priorities at the center of any conversations on proposed taxes on sugar-sweetened beverages.

5. Fund community-based research in Latino communities nationwide. Despite the growing Latino population in the state, there is limited research on drivers of tap water distrust and use for this population.
INTRODUCTION

MORE THAN A DECADE has passed since Governor Edmund G. Brown Jr. signed the Human Right to Water Bill, Assembly Bill (AB) 685, making California the first state in the nation to legislatively recognize clean drinking water as an essential human right. Adopted in 2012, primarily as a result of grassroots water justice advocacy, AB 685 enhanced Section 106.3 of the state’s water code to declare “that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.”

In 2016, the State Water Resources Control Board adopted resolution 2016-0010 identifying the human right to water as a top priority and core value of the state’s Water Boards. However, it was not until 2019, when Governor Gavin Newsom signed SB 200, that a $1.4 billion Safe and Affordable Drinking Water Fund was established to help local water systems provide safe drinking water over a period of 11 years.

Despite these policies, California is far from achieving safe, affordable, and accessible drinking water for all. A 2022 audit by the State Water Resources Control Board found that nearly 1 million Californians face possible long-term, negative health outcomes because they receive unsafe drinking water from a failing water system. The results of the audit echoed the critiques among water justice advocates that, while well-intentioned, California’s policies to achieve safe, affordable, and accessible water for all are largely symbolic.

Compounding inequities in safe, affordable, and accessible drinking water for all is the growing problem of tap water distrust and disuse, even in areas where drinking water meets or exceeds health-based water quality standards. Across the United States, researchers have documented how distrust is heightened among Latinos in the aftermath of disasters like the Flint, Michigan, water crisis.

The Latino population is the largest, youngest, and fastest-growing ethnic minority group in California and the United States, yet there is limited research on the factors influencing trust among this population or the health, economic, and environmental consequences. Research has broadly identified several major consequences of distrust. Most obviously, distrust in tap water has negative health consequences. Distrust usually leads to less water consumption and more consumption of sugar-sweetened beverages, resulting in dental health risks, inadequate hydration, and obesity. This has major household affordability impacts for Latinos and other disadvantaged communities, as these

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alternatives are more expensive compared to tap water. In this brief, we present findings from an exploratory study with parents and caregivers in Kern County to better understand tap water usage, factors influencing tap water distrust, and potential solutions to water distrust in this largely Latino county. Kern County is part of the San Joaquin Valley in Central California, which faces broad environmental health disparities and high-risk factors for young children.9 Perhaps the most acute environmental health hazard is inadequate safe tap water.10 Moreover, there is a disproportionate percentage of Latino households with children with documented dental concerns connected to diet and consumption of sweet substances11 and obesity concerns.12 High levels of reliance on sugar-sweetened beverages among youth in the Valley have led to some initial studies regarding the potential effects of a tax on the consumption of these beverages.13

In the next pages, we introduce the partnership model used with First 5 Kern to co-develop research protocols and solicit community participation in the study. Second, we present the findings from our exploratory focus group and survey with caregivers in Kern County.

Our research finds that many caregivers in Kern County did not trust their tap water and instead bought other beverage options and alternatives to drinking water such as sugar-sweetened beverages, but conversations with caregivers also shed light on potential solutions to distrust. We conclude this brief with actionable policy recommendations to address tap water distrust and disuse as a strategy to achieve safe, affordable, and accessible water for all Californians.

METHODOLOGY

THIS EXPLORATORY STUDY used a community partnership research model and mixed-method approach that combined online focus groups and an online survey to draw qualitative findings. As an exploratory study, the aim was to generate preliminary data to inform future protocols for a larger statewide research effort. The study has two major components, a focus group and online survey.

We developed the focus group content in partnership with First 5 Kern and worked with expert facilitators to refine and implement the focus groups. We performed outreach for the focus groups via parent advocates at First 5 Kern. We conducted one focus group in English

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What comes to mind when you think of water?

Participants were encouraged to share an image or to draw their favorite memory related to water as an icebreaker for the focus groups.

El agua. El agua es vida y muy indispensable.

Peace.

with three participants and one in Spanish with four participants. Focus groups occurred online via Zoom due to the university’s COVID-19 restrictions on fieldwork. We conducted the focus group sessions at times convenient for the participants and they lasted about 90 minutes. The focus group participants were all female caregivers living in Kern County; six were Latinas and one was non-Latina white.

Before participating in the focus group, we asked participants to complete a first iteration of the exploratory survey. We also encouraged the participants to share an image or to draw their favorite memory related to water as an icebreaker for the focus groups.

During the focus group, we elicited direct, close-ended, and open-ended responses on the topics covered in the survey modules: tap water usage, trust, potential solutions to distrust, and attitudes toward a sugar-sweetened beverage tax. We also solicited feedback on the structure of the exploratory survey questions and asked for suggestions on potential additional questions. The focus group responses informed the experimental survey instrument’s revisions and limited deployment. Following best practices to incorporate racial equity into research, we compensated focus group participants $50 and survey participants $10 for their participation via an electronic gift card to Amazon.com.

Facilitators reviewed a water resource guide at the end of each focus group to ensure the focus group was not just extractive of community participants. First 5 Kern developed the resource guide to help address pressing water quality issues participants might be experiencing. Facilitators were prepared to make referrals to appropriate advocacy or water management agencies if these issues arose.

First 5 Kern disseminated the survey via email and social media from January 2022 to May 2022 using the Qualtrics platform and
When I think of water
Fresh, thirsty, cooling, clean.

received over 600 responses. We filtered for respondents with children in Kern County and who were primarily responsible for making decisions related to drinking water in their household (n=155 relevant responses). The majority of our 155 survey respondents were white (54%), the remaining identified as Hispanic or Latino (20%), Black or African American (17%), American Indian or Alaskan Native (3%), Asian (3%), or other (3%). The following summarizes key findings from this exploratory research effort, including Latino respondents answering the survey (n=31).

**FINDINGS**

1. **Regardless of race and ethnicity, most caregivers do not trust tap water.**

   All focus group participants reported not drinking their tap water straight from the tap. Caregivers instead reported buying bottled water, refillable 5-gallon water containers, or relying on filtration devices to meet their daily drinking water needs. As one participant shared, “When I have hoses that have this collective gunk in it, I’m not putting that in my mouth, that’s disgusting.” Some focus group participants paid up to $100 a month for alternative drinking water sources because they did not trust their tap water. Roughly three out of four (77%) surveyed caregivers reported that they felt concerned about the safety of the tap water in their households; the pattern was consistent for Latino respondents (also 77%).

2. **Fear of tap water is associated with past experiences, distrust of water providers, and aging infrastructure.**

   Most focus group participants shared that they or someone they know has experienced rashes or irritation from showering with tap water, impacting their perception of tap water safety. Perception of tap water and distrust of local water providers were often voiced by caregivers. A focus group participant shared: “I don’t trust the water companies. Of course, they’re going to tell us the water is good to drink. They’ve told us for years that the water is good to drink up here.” Most participants also felt concerned about the aging infrastructure of their pipes and plumbing systems. In contrast to focus group participants, 90% of survey respondents stated tap water had not caused health problems for them or someone in their family; however, 60% reported some form of bad experience with tap water in or outside their homes. Similar proportions were observed for Latinos (84% and 68%, respectively).

   When given options about potential solutions to improve water quality, which costs less than buying bottled water, focus group participants preferred new drinking water infrastructure and third parties to test their water quality to bridge mistrust between local providers and the government. These responses suggest that solutions to on-premise plumbing might change their perception of tap water safety and distrust. Participants also felt that a short-term solution to water distrust included bottled water deliveries or filtration devices paid for by water providers. A caregiver shared: “They’re all about the bottom line and the money. There’s no honesty anymore, so I wouldn’t believe them if they said that. I’d like a filter.”

   Figure 1 shows survey respondents’ preferred solutions to improve water quality. We used the share of respondents that selected “Would definitely use this regularly” to the question, “If we were able to provide a way to improve

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54 We also received more than 500 responses that we determined were spam. Criteria to determine spam included: repeated IP addresses and email addresses, incomplete responses, responses outside Kern County, and utilizing Qualtrics Fraud Detection metrics. More details on these metrics can be found at: [https://www.qualtrics.com/support/survey-platform/survey-module/survey-checker/fraud-detection/](https://www.qualtrics.com/support/survey-platform/survey-module/survey-checker/fraud-detection/)
If we were able to provide a way to improve your water quality, which costs less than buying bottled water, which of these would you use?

<table>
<thead>
<tr>
<th>Solution</th>
<th>All Respondents</th>
<th>Latino Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public water filling station</td>
<td>35%</td>
<td>26%</td>
</tr>
<tr>
<td>Faucet water filter</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>Countertop water filter</td>
<td>41%</td>
<td>42%</td>
</tr>
<tr>
<td>Under sink water filter</td>
<td>41%</td>
<td>52%</td>
</tr>
<tr>
<td>Tap water test</td>
<td>71%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Note: The universe for this figure includes respondents with children in Kern County and who were primarily responsible for making decisions related to drinking water in their household (n=155).

Your water quality, which costs less than buying bottled water, which of these would you use?”

The most popular solution to improve water quality and use among survey respondents was overwhelmingly at-the-tap water testing. Most respondents (48%) indicated that if a test proved their water was good for drinking, they would regularly use their tap water. A vast majority (70%) of Latinos also preferred a test. Regardless of race, most respondents reported being able to afford less than $25 per month if provided a way to fix their tap water quality.

3. Latino caregivers report not drinking tap water at higher rates than other groups.

Figure 2 shows the share of responses to the survey question, “What is the primary source of drinking water used at your residence?” Only 10% of all participants reported using unfiltered water straight from the tap as their primary source of drinking water, whereas 87% used bottled water and/or filtered their tap water. Latinos primarily used tap water filtered at home (55%) or purchased bottled water (35%); none reported using water straight from the tap as their main source.

4. Regardless of race and ethnicity, most study participants felt that a tax on sugar-sweetened beverages is regressive or unfair.

When asked about taxing sugar-sweetened beverages, focus group participants felt that taxes were regressive and that the responsibility to solve the water quality issues should be on water companies and local governments. Some participants indicated a lack of faith in the government properly using taxes to benefit communities. In contrast to the focus groups, when asked whether a tax on sugar-sweetened beverages would be fair, 48% of survey participants favored it.
respondents responded that the tax would be fair, 31% responded that they felt neutral, and 21% responded that the tax would be unfair. Survey respondents indicated that a tax would not increase tap water trust and consumption, as a tax would only slightly decrease their consumption of sugar-sweetened beverages. Overall, Latino respondents responded similarly to the rest of the survey respondents, but a larger proportion felt that a tax would be unfair (39%).

Figure 3 represents community priorities for spending the tax revenue from sugar-sweetened beverages. Data are the potential revenue use and the number of times that use was ranked No. 1. The most popular choice for how respondents would prefer to spend the tax revenue from sugar-sweetened beverages was investments to improve water system infrastructure. When asked if the spending of tax revenue on their preferred options in the previous question would change their support for a new tax, 78% of respondents stated it would increase their support. When Latinos were asked if the spending of tax revenue on their preferred options in the previous question would influence their support for a new tax, 61% of respondents stated it would increase their support. When respondents were asked whether a 10-20% tax would change their consumption of sugar-sweetened beverages, the vast majority (72%) responded it would reduce consumption by at least a little. Less than 1% of respondents said they would stop buying sugar-sweetened beverages due to a tax.
COMMUNITY PRIORITIES FOR SPENDING TAX REVENUE FROM SUGAR-SWEETENED DRINKS

If a tax were passed, how would you prefer the funding from the tax be spent? Ranked #1

<table>
<thead>
<tr>
<th>Option</th>
<th>All Respondents (n=155)</th>
<th>Latino Respondents (n=31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments in improving water system infrastructure</td>
<td>63</td>
<td>26</td>
</tr>
<tr>
<td>Investments in improving home plumbing</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>Enhanced First 5 Kern and Resource and Referral Network services for eligible families</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>Investments in early childhood programs and resources for children</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Enhanced childcare options (i.e., childcare centers and family childcare homes)</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Universal income pilots</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: the universe for this figure includes respondents with children in Kern County and who were primarily responsible for making decisions related to drinking water in their household (n=155).

CONCLUSION AND RECOMMENDATIONS

CALIFORNIA HAS LONG CAST itself as a global leader on environmental justice issues, but despite its unique policy climate to achieve safe, affordable, and accessible water for all, nearly 1 million Californians receive unsafe tap water from failing community water systems. The growing problem of tap water distrust and disuse compounds these inequities, particularly among its growing Latino population. Previous research has linked tap water distrust to negative economic and health consequences, such as increased expenditures on alternative water sources like sugary beverages, which are often tied to inadequate hydration, dental health risks, and obesity. The basic conclusion of this study is that meaningful shifts in the purchase and consumption of tap water will be realized only when residents can trust and use tap water to meet basic needs. Ensuring tap water safety,

and addressing distrust and disuse is now more critical than ever given the Biden-Harris Administration’s recent commitment to rebuild the nation’s water infrastructure. Only then will impacted communities truly benefit from the health, economic, and environmental benefits these infrastructure investments will offer.

This exploratory research identified five key findings. First, regardless of race and ethnicity, caregivers in Kern County reported not trusting their tap water, citing concerns over poor residential plumbing, negative health experiences of friends and family with tap water, and not trusting local water systems to provide safe drinking water. Second, we show that fear of tap water is associated with past bad experiences with tap water, distrust of water providers, and aging infrastructure. These issues are particularly prominent among Latinos, who also reported not drinking their tap water at higher rates than others. This lack of trust seriously affects how the public interacts with our government, including water providers. We also show that efforts to raise revenue for infrastructure improvements that would improve drinking water access, quality, and affordability must center community interests. For instance, most caregivers voiced that a tax on sugar-sweetened beverages, a common alternative to tap water, is regressive or unfair. However, participants also expressed that having a say in how revenue is spent would increase support for a tax.

Given these findings, we offer five recommendations for decision-makers to advance the state’s human right to water goals:

- First, local and state governments should provide and promote on-premise plumbing-focused grant and loan programs to alleviate some of the financial burdens to upgrade plumbing systems and improve drinking water in disadvantaged communities. Participants emphasized that they felt concerned about their household plumbing and that improved premise plumbing would increase their tap water trust and consumption.

- Second, local and state governments should provide funding for trusted community-based organizations and public agencies to conduct research-informed public education campaigns and tap water testing programs to increase tap water trust, inform communities about the negative health impacts of sugary beverage consumption, and assist households with tap water concerns. Latino and other ethnic communities are often difficult to reach due to language barriers and general distrust of local government. These trusted local messengers, such as First 5 Kern, the Community Water Center and the indigenous-focused groups CIELO and MICOP, usually have a greater capacity to deliver culturally relevant messaging and engage diverse media outlets such as Spanish and social media. Although funding exists for various water projects at the state and federal level, dedicated funding is

17 “Premise plumbing is defined as the portion of a water system, including both hot and cold water, various devices (e.g., hot water heater, HVAC humidifier), fixtures (e.g., showers, faucets), and drains (e.g., sinks, toilets) connected to the main distribution system via service lines. Water quality within premise plumbing systems is not monitored by EPA regulations, except for the Lead and Copper Rule.” Please see for more information: https://www.epa.gov/emergency-response-research/premise-plumbing-decontamination#:%20text=Premise%20plumbing%20is%20defined%20as,distribution%20system%20via%20service%20lines.

18 For more information on available funding see: https://www.waterboards.ca.gov/water_issues/programs/grants_loans/


needed for tap water testing programs and tap water trust campaigns.

- Third, fund local community-based health workers or “promotores” programs. Community-health worker programs are a promising but underused model in water equity policy.\[^21\] This model could play a role in debunking the myths that drive tap water mistrust and disuse, facilitating access to resources such as water quality tests and point-of-use water filters.\[^22\]

- Fourth, community spending priorities should be a primary focus of conversations about taxes on sugar-sweetened beverages. Study participants expressed concerns over the regressive or unfair nature of a tax on sugar-sweetened beverages. Nonetheless, caregivers also said that their attitude toward a tax might change if funds were used for community-identified priorities such as local water system infrastructure improvements. Community-led decision-making increases the likelihood that projects or solutions will be widely accepted and tend to increase trust in communities.

- Fifth, the state should prioritize funding for community-based research on tap water safety and drivers of distrust in Latino communities. Despite California and the United States' large and growing Latino population, there is limited research on this population. The dispersion and diversity of Latinos provide both challenges and opportunities to enhance our understanding of how tap water trust is shaped by socioeconomic, sociopolitical, and geographic factors. This exploratory research also shows that community-centered and engaged research models are critical for understanding the needs of and opportunities for investments in diverse communities. The Reparations Task Force is one example of a more community-centered approach to conducting research and creating reports.\[^23\]


\[^23\] https://oag.ca.gov/ab3121/reports