

# Lessons Learned from the Adoption and Implementation of Sweetened Beverage Taxes in the United States: A Narrative Review

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## What Did We Find?

**Ten published, qualitative research studies of adoption and implementation of United States (U.S.) sugar-sweetened beverage (SSB) taxes and sweetened beverage taxes (SBTs) were identified and assessed to compile cross-cutting lessons learned. Key lessons include:**

### Design and Adoption of Beverage Taxes

- Identify state law constraints that may impact local beverage tax design
- Consider the local context and proposal framing
- Provide concise language for tax applicability
- Conduct informational outreach tailored to distributors, retailers, and restaurant owners
- Consider full network of opponents and proponents and capacity and willingness to mobilize

### Implementation of Beverage Taxes

- Allow sufficient time to support tax roll-out
- Assess internal administrative capacity and sub-contract if resources are inadequate (i.e., third party administration vs. internal agency staff)
- Ensure equitable implementation of tax revenue
- Prepare for concerted opposition during the post-enactment phases

*In addition to cross-cutting themes, study-specific themes and anecdotes from implementation stakeholders' experiences, are listed in [the box](#) at the end of this review.*

## Introduction

Seven United States (U.S.) cities have adopted and implemented a sugar-sweetened beverage (SSB) tax (Berkeley, Albany, Oakland, and San Francisco, CA; and Boulder, CO) or sweetened beverage tax (SBT), applicable to both SSBs and non-calorically sweetened beverages (Philadelphia, PA); Cook County, IL, also adopted and implemented an SBT, which was subsequently repealed. While there is an extensive body of literature examining beverage tax impacts on price, purchasing, consumption, employment, and other outcomes, literature focused on the processes of adopting and/or implementing beverage taxes has been slower to develop. To date, U.S. taxes have been adopted locally, allowing governments to tailor tax design and implementation processes and earmark revenue to support local needs. However, local jurisdictions may be handicapped by a lack of resources, capacity, and/or limited experience implementing fiscal policies. And, while beverage taxes typically aim to generate revenue and reduce SSB consumption, how local jurisdictions reach these goals may vary greatly. Understanding variation within implementation strategies may provide benefit to other policymakers and improve the extent to which local jurisdictions can reach these goals.

**This review synthesizes qualitative lessons\* learned from peer-reviewed and selected publicly available studies of the adoption and/or implementation of U.S. SSB taxes and SBTs. Studies used a variety of qualitative methods including key informant interviews, document analyses, and media content analyses (see [Methods section](#) for details).**

\* This review is limited to themes found in at least two studies. Individual publications contain additional study-specific themes and readers are encouraged to review [referenced studies](#) for a complete summary of qualitative findings and themes from each jurisdiction.

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## Methods

The goal of this narrative review was to synthesize major themes across qualitative studies of enacted U.S. beverage taxes. The literature compiled for this research synthesis was obtained through searches of literature databases including PubMed, PAIS, and Google Scholar. Qualitative studies focused on the adoption or implementation of U.S. jurisdictions enacting a sweetened beverage tax were included for analysis of cross-cutting lessons learned. Studies collected data via interviews, discussion groups, or document analyses. Cross-cutting themes were identified as lessons detailed in at least two included studies. Quantitative studies focused on revenue, fiscal policy, tax proposals or campaigning, or conceptual enactment were excluded. Commentaries related to specifically enacted beverage taxes were captured and referenced in the opportunities section of this brief but were not included in the research synthesis.

## LESSONS LEARNED: DESIGN & ADOPTION OF BEVERAGE TAXES

Qualitative studies conducted in four beverage taxing jurisdictions—Berkeley, CA, Philadelphia, PA, Cook County, IL, and Oakland, CA—provide insights for lessons learned during the tax design and adoption processes.<sup>1-6</sup> Prior to public announcement and campaigning, policymakers must develop a clear tax structure inclusive of tax amount (e.g., \$0.01/oz, \$0.0175/oz); tax type (e.g., excise, sales); product applicability (e.g., SSBs, SSBs and ASBs); and setting applicability (e.g., food stores).<sup>7</sup> Additionally, policymakers must determine:

- Which adoption strategy to use (e.g., Council adoption, ballot initiative for public vote)
- How to achieve public awareness (e.g., campaigning, tax line item on receipt)
- How to collect taxes (e.g., third-party collection)
- Where to deposit collected taxes (e.g., City General Fund vs. dedicated fund)
- What will be allowable uses for revenue (e.g., earmarking for preschool programming)

Decisions may also be influenced by existing state law and historical experiences within the local jurisdiction.

### Identify State Law Constraints that May Impact Local Beverage Tax Design

State constitutions and statutes (i.e., laws), establish the parameters within which local governments operate. For example, state laws may restrict what local governments may legislatively address, where states preempt local law, and what types of taxes are allowable. Accounting for constraints at the outset of tax design is important for avoiding policy adoption challenges.

#### Jurisdictional Examples:

- Existing California law requires voter referenda on tax measures, forcing local municipalities including Berkeley, Oakland, and San Francisco, to tradeoff between proposing a general beverage tax (requiring 51% or majority approval to pass) with revenue deposited in the local government's general fund versus a specific tax (requiring two-thirds majority approval to pass) with revenue dedicated or earmarked for specific funding streams and programming.<sup>5,6,8</sup>
- Cook County's tax proposal was considerably hampered by two state laws. First, Illinois' Home Rule law precluded local imposition of excise, distributor, or occupation taxes, all of which would incorporate the tax into consumer-faced shelf prices. Consequently, the County was forced to propose an SBT applied at the point-of-sale (i.e., cash register), producing less "sticker shock" than excise taxes adopted by other beverage taxing jurisdictions; however, there was a provision in the ordinance that, over time, required retailers to display the tax amount on the shelf. Second, the Illinois Constitution's Uniformity Clause, which requires consistent taxing across products of similarity, was cited as rationale for including non-calorically sweetened beverages, such as diet soda (in addition to SSBs).<sup>3</sup>

### Consider the Local Context and Proposal Framing

Local-level taxes are a "hot-button" political issue. Depending on the jurisdiction, residents may already face numerous service, consumption, and use taxes along with other levies and fees. Thus, garnering public and legislator support for additional taxes can be challenging. Understanding local context and incorporating it in framing may be key to achieving tax support.

#### Jurisdictional Examples:

- Philadelphia unsuccessfully campaigned for an SSB tax targeting health improvement in 2010, 2011, and 2015.<sup>2</sup> In 2016, the City once again considered a beverage tax. Public polling highlighted community support for youth and community investment projects,<sup>4</sup> specifically, City-funded Universal Pre-Kindergarten.<sup>1,2,4</sup> However, two concerns were noted: (1) an SSB tax would disproportionately target lower-income residents, typically heavier SSB consumers than affluent counterparts; (and 2) the tax would be a consumable product tax aligned with nanny-state politics.<sup>1</sup> To alleviate consternation, Philadelphia proposed, and subsequently passed, an

ordinance taxing both SSBs and non-calorically sweetened beverages (i.e., diet soda), which bolstered revenue, and explicitly framed the tax as generating revenue to support Universal Pre-K, not improve health.

- Boasting historically, strong policy leadership<sup>6</sup> and community skepticism of big corporations,<sup>4</sup> Berkeley has a diverse population inclusive of politically engaged, highly educated, and lower-income residents, the latter of which are disproportionately impacted by diseases such as diabetes.<sup>4,6</sup> The City mitigates inequities and proactively supports community wellness through programming such as the Berkeley Public School District's Cooking and Gardening Program, which lost funding prior to the tax proposal.<sup>6</sup> Consistent with community ideologies, the tax was framed as "Big Soda vs. Berkeley", a fiscal policy to reduce diabetes rates and raise revenue to support (and reinstate) healthy living programs.<sup>4,6</sup>
- Cook County residents have a history of government mistrust, particularly with financial stewardship, and have experienced "tax fatigue" from repeated tax increases.<sup>3,4</sup> Adding to public discord, County officials communicated a health promotion tax frame when, in reality, revenue was intended to subsidize a \$200 million budgetary shortfall. The inclusion of both SSBs and non-calorically sweetened beverages led to opposition from County Council members and some advocacy organizations who felt a tax intended to improve health should be applied solely to SSBs as evidence for long-term health effects of non-calorically sweetened beverages is inconsistent.<sup>3</sup> Messaging confusion and mixed leadership support did not advance public trust or improve tax support.

## Provide Concise Language for Tax Applicability

Clear tax language detailing product criteria for tax application avoids confusion amongst distributors, retailers, and even the public, resulting in a smoother implementation. Vague language can lead to challenges during the initial phases of implementation.

### Jurisdictional Examples:

- In Berkeley, distributors noted confusion about whether syrups and "natural" caloric sweeteners were taxable, suggesting the term "all natural" could equate to product exemption. However, stakeholders also stated the tax calculation was "actually really simple" (e.g., 1-cent per fluid ounce) facilitating implementation, particularly when compared to tobacco rates, which historically varied.<sup>6</sup>
- Oakland distributors were initially taxed on SSBs brought into the City for warehousing with a distribution for sale intention outside of the City limits. Once the problem was identified, the City issued a clarifying regulation indicating such products would not be taxable under the ordinance.<sup>5</sup>

## Conduct Targeted Education and Communications with "On-the-Ground" Implementers

Distributors, retailers, and restaurant owners are critical stakeholders in tax implementation, thus, planning and conducting targeted outreach during the initial stages of implementation is an important activity. For example, retailers are critical for communicating changes to consumers and for ensuring accurate tax application. Understanding what beverages are taxable and knowing how to accurately calculate and apply the tax, is key. As a result, proper training, education, and guidance can support implementation.

### Jurisdictional Examples:

- While Berkeley's tax is initially applied to distributors, stakeholders noted the importance of conducting widespread outreach to all affected parties including retailers, as retailers are the front-line for tax collection. Retailers specified email communications and in-person contacts were preferred over less personal information sharing, such as letters or newspapers.<sup>5</sup>
- Likewise, retailers located near borders within taxing jurisdictions (e.g., locations sharing boundary line with non-taxing jurisdiction) complained of revenue loss following tax implementation because customers were purchasing beverages "across the border".<sup>3,6,9</sup> Yet, not all retailers opposed taxes; some Berkeley, Oakland, and San Francisco retailers supported the tax noting potential health benefits, particularly for children.<sup>6,9</sup>
- Seattle distributors, restaurant owners, and other business owners confirmed receiving tax communications from the City, but stated a desire for more information about "how the tax will impact their type of business."<sup>11</sup>

## Anticipate the Full Range of Stakeholder Support and Opposition

U.S. beverage tax proposals are inherently political; however, the role key stakeholders assume "inside" (e.g., government officials) and "outside" (e.g., coalitions, advocates, industry) of government processes around proposal development, campaigning, and adoption varies greatly across jurisdictions.

### Jurisdictional Examples:

- In Berkeley and Oakland, local broad-based coalitions including city council members, community leaders, school district representatives, faith-based organizations, parents, medical and dental professionals, unions, nutritionists, and grocery and restaurant owners mobilized grassroots political organizing to support tax adoption.<sup>4,5</sup>
- In Philadelphia, the tax was spearheaded by the Mayor and bolstered with union and lobbyist support.<sup>2</sup> While pro-tax (public health, education, parks and recreation) and opposition organizations (largely soda industry, food service industry, and the Teamsters) were

equally engaged and active in adoption; counter messaging and aggressive lobbying activities were perceived as “Big Soda,” and did not resonate with City Council members.<sup>4</sup>

- Cook County offers a large and active public health advocacy coalition; however, officials did not engage this coalition until after the tax was proposed and the adoption campaign was underway. With only two to three months until the County Council vote, the advocacy coalition was simply unable to mobilize a full-scale campaign on behalf of the tax.<sup>3</sup>

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## LESSONS LEARNED: IMPLEMENTATION OF BEVERAGE TAXES

Qualitative studies of implementation processes and/or perspectives were conducted in five beverage taxing jurisdictions—Berkeley, Philadelphia, Cook County, Oakland, and San Francisco.<sup>3,5,6,9,10,12,13</sup> Implementation efforts commence immediately following enactment (i.e., passed and signed into law) and often require a grace period allowing local officials to prepare for tax administration. Decisions as to whether the local government possesses the administrative capacity for a beverage tax or whether a third-party tax administrator should be contracted to support administration and collection efforts are made post-enactment during the implementation planning phase. Once the tax takes effect, key decisions are made as to where and how tax revenue will be allocated, unless dedicated for a specific purpose such as the case of Philadelphia where revenue supports Universal Pre-K.<sup>1,2,4</sup> Establishment of advisory boards (typically ordinance required) to make allocation recommendations helps direct revenue to communities in need.<sup>4-6,12</sup> However, simply adopting a tax does not necessarily indicate smooth implementation, nor does it suggest opposition groups will suddenly “go away;” in fact, the opposite held true in Cook County.<sup>3</sup>

### Budget Time Between Enactment & Implementation Mindful of Roll-out Activities

Policymakers and other stakeholders require adequate planning and preparation time prior to the implementation effective date (i.e., date of legal enforcement). Having a longer timeline ensures the necessary systems are in place and operational and that responsible tax remittance entities (e.g., retailers, distributors) are educated; however, prolonged timelines yield opportunities for opposition forces to gain traction.

#### Jurisdictional Examples:

- The Berkeley SSB tax was passed via a voter referendum on November 4, 2014, with an effective date of January 1, 2015. The two month implementation timeline was impractical as administrative logistics associated with rolling out a new tax and collection processes had not been established.<sup>6</sup> Thus, enforcement began, in earnest, March 1, 2015.<sup>6</sup>
- Oakland Measure HH was passed November 8, 2016 via voter referendum, with an effective date of July 1, 2017.<sup>5</sup> Key informants noted the seven+ months between adoption and implementation was critical for establishing administrative and implementation procedures.
- Contrasting Berkeley and Oakland, Cook County’s longer adoption to implementation timeline was counterproductive. While enacted November 10, 2016 with a scheduled effective date of July 1, 2017, a series of industry-backed lawsuits delayed implementation.<sup>3</sup> Concerns highlighted by lawsuits forced the County to issue numerous regulations which, led to retailer and public confusion.<sup>3</sup> Ultimately, the tax became effective August 2, 2017 but delays allowed opposition forces to mount a successful repeal campaign (including through the media), which came to fruition November 30, 2017.<sup>3</sup>

### Plan for Tax Administration

One central administrative decision for a taxing jurisdiction is to determine who will be responsible for tax collection, administration, and oversight. Conceptually, larger jurisdictions have more developed infrastructure and staff, which may better position them for all aspects of oversight (i.e., tax collection, administration, and education processes); however, for lower-capacity jurisdictions, employing an outside (third-party) organization can streamline implementation. Third-party administrators are also well-positioned to provide unbiased feedback around challenges for which government agencies can issue clarifying regulations.

#### Jurisdictional Examples:

- Berkeley took a key step in facilitating implementation, by allocating a portion of tax revenue to hire a third-party tax administrator. This agency led tax payer education efforts, prepared frequently asked question (FAQ) documents, and fielded distributor and retailer queries providing guidance to each.<sup>6</sup>
- Following Berkeley’s lead, Oakland hired the same third-party tax administrator, which provided benefit to an overburdened department with already limited staff time.<sup>5</sup> Rather, the external administrator provided built-in infrastructure for tax oversight; efforts Oakland stakeholders viewed as key to the relatively smooth tax roll-out.<sup>5</sup> Additionally, the administrator identified confusion in tax application on SSBs distributors were bringing in to Oakland for the express purpose of warehousing with a distribution for sale

intention outside of the City limits. Once identified, the City issued a clarifying regulation indicating such products were not taxable under the ordinance.<sup>5</sup>

- Once enacted, prior to commencement of tax collection, Berkeley and Oakland key informants stressed the importance for immediate funding to support tax administration, collection, communications/education, and/or evaluation efforts.<sup>5,6</sup> Along with fund appropriation for a third-party administrator, stakeholders recommended including ordinance language to explicitly allocate a portion of revenue supporting increased staff time, which facilitates oversight, administration, and liaising between government and other stakeholders; without concise ordinance guidance, the burden rests heavily on already overloaded government staff.
- Cook County, on the other hand, considered but decided to not hire a third-party tax administrator in favor of County offices managing the entire process. As a result, in the 100 days between tax adoption and effective date, the County issued five initial and two updated regulations (of the original five), numerous FAQs (and updates of FAQs), and an assortment of other communications which, collectively, led to confusion amongst retailers, restaurant owners, and the general public for several aspects of the tax.<sup>3</sup>

## Ensuring Equitable Allocation of Tax Revenue that Supports the “Spirit” of the Ordinance

A critical decision for beverage tax implementation relates to how tax revenue will be allocated. While public health stakeholders may favor dedicating tax revenue for specific programming or initiatives (e.g., obesity prevention, sugary drink campaigns), as was historically done with tobacco control initiatives, state laws may make this challenging.<sup>14</sup> Thus, to comply with legal restrictions and ensure tax revenue supports initiatives addressing local needs, particularly in communities disproportionately impacted by inequities jurisdictions have included ordinance language mandating advisory board establishment to make funding recommendations to City Council. Advisory Boards inherently aim to ensure funding adheres to original tax purpose which, in many examples, includes addressing inequities, rather than closing budgetary gaps in municipal general funds.

### Jurisdictional Examples:

- Studies from Berkeley<sup>6</sup> and Oakland<sup>5,12</sup> detailed the role of advisory boards, which were instrumental in making revenue spending recommendations grounded in community needs. However, lack of capacity (i.e., personnel, funding) delayed board establishment, countering key informant recommendations to establish boards immediately following tax enactment, which facilitates advisory roles and expedites revenue allocations.
- Critical to the success of the Berkeley and Oakland advisory boards was diverse representation in board composition; in both jurisdictions, advisory boards were integral for disseminating program and service funding recommendations that supported communities disproportionately impacted by excessive sugary drink consumption and related chronic diseases.<sup>5,6,12</sup>

## Prepare for Concerted Post-Enactment Opposition

Decisions for beverage tax components (e.g., taxable beverages—SSBs or all sweetened beverages, tax framing and purpose, use of revenue) are jurisdictionally unique, thus, the nature of tax support and opposition varies. Typically, once enacted, pro-tax groups move to the next pressing issue; the assumption that tax institutionalization removes the vulnerability faced by challenges, which can ultimately lead to repeal. Opponents demonstrate a strikingly different strategy; following enactment, efforts from anti-tax groups are relentless, which is important insight for advocates and decision makers considering future beverage tax initiatives. Additionally, media in some jurisdictions have played a critical role in supporting or opposing beverage taxes.

### Jurisdictional Examples:

- Prior to tax enactment, industry launched the “No Oakland Grocery Tax” campaign, which continued throughout implementation. A major campaign goal was to spread misinformation that the tax would apply to all groceries—not just SSBs. Opposition messaging also suggested the tax was regressive because lower-income populations spend a greater percentage of income on goods, in this case SSBs, and are more likely to consume more SSBs than higher-income counterparts, thus they are differentially (and more heavily) impacted. Ironically, the opposition campaign itself was particularly aggressive in communities they purported to protect.<sup>5,12</sup>
- In Cook County, major Chicago-area newspapers almost universally opposed the tax; of the 30 tax-related editorials (primarily between the tax effective date and repeal), only one included an op-ed from a key public health advocacy group supporting the tax. A political groundswell ensued once major newspapers started publishing on confusion related to what was ordinance taxable versus what was taxed in practice, which included complaints and frustrations from grocers and restaurant owners. Industry capitalized on this moment, using public and retailer contention to mount and continue fueling an aggressive political campaign toward tax repeal; a campaign connecting a broad swath of opposing forces including the beverage industry, retailers, restaurant owners, County Council Members, and the general public.<sup>3</sup> In contrast, media coverage in Oakland post Measure HH adoption was reported as predominantly pro-tax.<sup>13</sup>

## OPPORTUNITIES FOR STUDIES OF BEVERAGE TAX ADOPTION AND IMPLEMENTATION

To date, most tax evaluation studies have centered around tax impacts on tax pass-through, purchasing, consumption, and other outcomes (e.g., employment, health). Studies of tax processes, including adoption and implementation experiences have been limited and restricted to peer-reviewed scientific literature.<sup>15,16</sup> Process-related studies provide unique insights for advocates, policymakers, and agency staff responsible for implementation, enabling them to learn from other jurisdictions. With the exception of Berkeley, most studies presented herein were restricted to short-term implementation. Ongoing studies of implementation successes and challenges are necessary to understand whether and how beverage tax implementation may change over time.

### Support the dissemination of lessons learned from “failed efforts.”

While policy implementation literature highlights “success stories”, only a fraction attention is paid to “failed efforts.” The Cook County study was unique, with explicit focus given to failed tax implementation efforts, which undoubtedly contributed to its repeal. Other states and localities nationwide have proposed beverage tax measures, which have never come to fruition. Understanding why tax efforts did not lead to enactment could offer useful data points and lessons learned for other jurisdictions (in addition to the experiences of jurisdictions that have successfully adopted and implemented beverage taxes).

### Expand the diversity of stakeholder experiences with implementation.

The perspectives represented in beverage tax adoption and implementation studies need to reflect all stakeholders. The studies examined herein predominantly focused on accounts from stakeholders immersed in implementation activities, such as, government agency staff, or campaign efforts, such as, advocacy coalitions, and opposition forces. And, while a few studies reported retailer and media perspectives, public voice has been noticeably absent from the published literature. To our knowledge, only two studies conducted in Seattle examined public opinion regarding the potential economic and public health benefits of the tax and consumers’ pre-tax perceptions about the tax;<sup>11,17</sup> capturing public perspectives during both the adoption and implementation stages can help ensure community voices are heard and part of the “story.”

### Apply dissemination and implementation science frameworks.

Finally, researchers studying beverage tax adoption and implementation processes should consider conceptualizing and designing their studies using dissemination and implementation science research frameworks.<sup>18-20</sup> Thus far, there has been limited application of implementation science theories in the published studies (primarily the Consolidated Framework for Implementation Research, CFIR);<sup>5,6</sup> such theories can provide a priori conceptual frameworks to apply a systematic examination of adoption and implementation.

## Conclusion

This narrative review summarized cross-cutting themes from 10 published studies of the adoption and/or implementation of U.S. beverage taxes. Notably, these studies were conducted across 5 out of the 8 jurisdictions that have enacted beverage taxes. Although each study had different research questions, data sources, methods, and coding guides, there were a number of common themes across the studies and jurisdictions which helps lend credence to the findings presented herein. The beverage tax adoption and implementation experiences from these 5 jurisdictions offer valuable lessons learned for policymakers and advocates working towards beverage taxation in their jurisdictions.

## Additional Lessons from Adopting and Implementing Beverage Taxes in the U.S.

**In addition to the cross-cutting themes identified above, studies included additional lessons involved with adopting and/or implementing beverage taxes in the U.S. that did not meet our inclusion criterion. These lessons, along with anecdotal lessons from stakeholders on-the-ground, include:**

- Engage the community in the design and intended “goal” of the tax (e.g., health vs. non-health purpose)
- Work with the public health community to actively establish a pro-tax campaign to counter anti-tax campaigns
- Identify a “policy entrepreneur” who will champion the tax with the support of a coalition<sup>2</sup>
- Couple tax policy content to existing jurisdictional policy priorities<sup>4</sup>
- Prepare counter messages, focused on positive tax impacts, that to mitigate concerns of revenue and job loss for small businesses and the community<sup>11</sup>

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