

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

AMERICAN BEVERAGE ASSOCIATION
and CALIFORNIA RETAILERS
ASSOCIATION,

Plaintiffs/Appellants,

vs.

CITY AND COUNTY OF SAN FRANCISCO

Defendant/Appellee.

No. 16-16072

U.S. District Court No. 3:15-cv-03415 EMC

CALIFORNIA STATE OUTDOOR
ADVERTISING ASSOCIATION,

Plaintiff/Appellant,

vs.

CITY AND COUNTY OF SAN FRANCISCO

Defendant/Appellee.

No. 16-16073

U.S. District Court No. 3:15-cv-03415 EMC

BRIEF OF *AMICI CURIAE*
AMERICAN HEART ASSOCIATION,
AMERICAN ACADEMY OF PEDIATRICS, CALIFORNIA,
CALIFORNIA ACADEMY OF FAMILY PHYSICIANS, CALIFORNIA CHAPTER OF
THE AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS,
CALIFORNIA ENDOWMENT, CALIFORNIA MEDICAL ASSOCIATION,
CALIFORNIA PAN-ETHNIC HEALTH NETWORK, CHANGELAB SOLUTIONS,
COMMUNITY HEALTH PARTNERSHIP, CROSSFIT FOUNDATION,
DIABETES COALITION OF CALIFORNIA

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On Appeal from the United States District Court
for the Northern District of California

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STRATEGIC ALLIANCE**

CORPORATE DISCLOSURE STATEMENT

No party to this filing has a for-profit parent corporation, and no publicly held corporation owns 10% or more of the stock of any party to this filing.

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STATEMENT OF INTEREST OF *AMICI CURIAE*

Amici curiae are national and California public health and medical organizations. They seek to share their expertise with the Court to explain that the warnings challenged in this case are not controversial statements of opinion, but factual statements reflecting the consensus of the public health and medical communities.¹

Specific information about each *amicus* appears in the Appendix.

¹ The parties have consented to the filing of this brief. No counsel of any party to this proceeding authored any part of this brief. No party or party's counsel, or person other than *amici* and their members, contributed money to the preparation or submission of this brief.

SUMMARY OF ARGUMENT

Ordinance No. 100-15 is a reasonable and constitutional response to a triple epidemic of chronic disease. The harms of obesity and type 2 diabetes may be the gravest public health issue facing San Francisco; tooth decay remains the most widespread chronic disease. San Francisco has determined that all three conditions are fostered in significant part by the consumption of SSBs, and that SSB consumption is fueled in part by soda company advertising, targeted in particular at the populations suffering most from these diseases. The City's response seeks only to ensure that SSB advertising is accompanied by information that empowers healthier, potentially life-saving choices.

The First Amendment poses no obstacle. "Because the extension of First Amendment protection to commercial speech is justified principally by the value to consumers of the information such speech provides," the "First Amendment interests implicated by disclosure requirements are substantially weaker than those at stake when speech is actually suppressed." *Zauderer v. Office of Disciplinary Counsel of Supreme Court of Ohio*, 471 U.S. 626, 651 & n.14 (1985).

Consequently, requirements that commercial advertisements include relevant factual information are subject to only lenient First Amendment review.

Specifically, the state may compel "factual and uncontroversial" disclosures,

provided only that the requirements are “reasonably related” to the state’s interest, and are not “unduly burdensome.” *Id.*

This deferential level of First Amendment scrutiny applies to the challenged warnings, because they are uncontroversially true: the associations between increased SSB consumption and increased risk of obesity, diabetes, and tooth decay are established by “compelling”² scientific evidence, and recognized by every pertinent agency of the federal government – including the FDA, to whose authority plaintiffs appeal – and by a broad consensus of national and international public health organizations. Any purported scientific disagreement has to do with the mechanisms by which SSB consumption contributes to obesity and diabetes, not *whether* it contributes. And even much of the alleged controversy over mechanisms can be attributed largely to industry-funded research.

Nor is there evidence that the warnings are misleading, explicitly or implicitly. Given that SSBs constitute 50% of added sugars in the American diet, that they lack the countervailing nutritional benefits of other sugary beverages, and that SSBs tend in large part to be consumed *in addition to* – not instead of – other calories, there is nothing misleading in singling them out.

² Frank Hu, *Resolved: There Is Sufficient Scientific Evidence That Decreasing Sugar-Sweetened Beverage Consumption Will Reduce the Prevalence of Obesity and Obesity-Related Diseases*, 14 OBESITY REV. 606, 606 (2013), at <http://online.library.wiley.com/doi/10.1111/obr.12040/epdf>

Therefore, a First Amendment challenge to the Ordinance is properly reviewed under the *Zauderer* standard.

The Ordinance readily survives *Zauderer* review. Its relationship to San Francisco's interest in public health is self-evident. Moreover, empirical studies indicate that the warnings are likely to be effective.³ Finally, the warnings do not impose an undue burden. Their relative size is by no means unique, and plaintiffs' threats to discontinue advertising are irrelevant: the Constitution does not provide advertisers a veto over regulation they disfavor.

ARGUMENT

I. THE WARNINGS ADDRESS THREE SERIOUS EPIDEMICS.

The Ordinance addresses three widespread, serious chronic diseases.

Obesity. Nearly half of San Francisco adults are overweight or obese.⁴

Nearly 1 in 5 three- to four-year-olds enrolled in Head Start in San Francisco is obese.⁵ African-American and Hispanic women and children are even more likely

³ See Christina Roberto et al., *The Influence of Sugar-Sweetened Beverage Health Warning Labels on Parents' Choices*, 137(2) PEDIATRICS (Feb. 2016) (parents are less likely to choose a sugary drink for their child if those drinks have health warning labels), at <http://pediatrics.aappublications.org/content/pediatrics/early/2016/01/13/peds.2015-3185.full.pdf>

⁴ San Francisco Health Improvement Partnership, *Adults Who Are Overweight or Obese* (Nov. 2015), at <http://www.sfhip.org/modules.php?op=modload&name=NS-Indicator&file=indicator&iid=19192667>

⁵ S.F. Health Code § 4201, Findings, at 4; Calif. Dept. Pub. Health, *Obesity in California: The Weight of the State, 2000-2012* (2014), at <https://www.cdph.ca.gov/programs/cpns/Documents/ObesityinCaliforniaReport.pdf>

to be obese.⁶ Obese children are more likely to develop type 2 diabetes, asthma, and heart disease.⁷ “Only smoking comes close” to obesity as an environmental risk factor for cancer.⁸

Diabetes. An American today has an estimated 2 in 5 chance of developing diabetes in her lifetime; if she is Hispanic or African-American, the odds are 1 in 2.⁹ Consequences can include vision loss¹⁰ or amputation. Over 65,000 Americans with diabetes underwent amputations in 2006 alone.¹¹ (For comparison: as of 2012, the total number of U.S. military personnel to undergo amputations as a result of the wars in Iraq and Afghanistan was 1,572.¹²)

⁶ Dariush Mozaffarian et al., *Heart Disease and Stroke Statistics – 2016 Update*, 133 CIRCULATION e1, e74 (2015), at <http://circ.ahajournals.org/content/circulationaha/early/2015/12/16/CIR.0000000000000350.full.pdf>

⁷ CDC, *Childhood Obesity Causes & Consequences* (2015), at <http://www.cdc.gov/obesity/childhood/causes.html>

⁸ Nicholas Bakalar, *Obesity Is Linked to At Least 13 Types of Cancer*, N.Y. TIMES (Aug. 24, 2016) (quoting Dr. Graham Colditz), at <http://nyti.ms/2bGbAwZ>

⁹ CDC, *Now, 2 Out of Every 5 Americans Expected to Develop Type 2 Diabetes During their Lifetime*, at <http://www.cdc.gov/diabetes/pdfs/newsroom/now-2-out-of-every-5-americans-expected-to-develop-type-2-diabetes-during-their-lifetime.pdf>

¹⁰ CDC, *Nat’l Diabetes Statistics Rep., 2014* (2014), at <http://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf>

¹¹ Nat’l Diabetes Statistics Clearinghouse, *National Diabetes Statistics*, Nat’l Inst. of Health (2011), at <http://diabetes.niddk.nih.gov/dm/pubs/statistics/#Amputations>

¹² David Wood, *U.S. Wounded In Iraq, Afghanistan*, HUFF. POST (Nov. 7, 2012), at http://www.huffingtonpost.com/2012/11/07/iraq-afghanistanamputees_n_2089911.html

Tooth decay. Dental caries is the single most prevalent chronic disease in the United States, affecting 42% of children, 59% of adolescents, and 92% of adults. Rates among Hispanics and African Americans are even higher.¹³

II. THE WARNINGS ARE FACTUAL AND UNCONTROVERSIAL COMMERCIAL DISCLOSURES SUBJECT TO DEFERENTIAL FIRST AMENDMENT REVIEW UNDER *ZAUDERER*.

What Ordinance No. 100-15 requires advertisers to provide to consumers is “factual and uncontroversial information.”¹⁴ *Zauderer*, 471 U.S. at 651. Therefore, the measure is properly reviewed under the lenient *Zauderer* standard.¹⁵

¹³ Bruce A. Dye et al., CDC, *Dental Caries and Tooth Loss in Adults in the United States, 2011–2012* (May 2015), at <https://www.cdc.gov/nchs/data/databriefs/db197.pdf>

¹⁴ As noted by the district court, it is not clear that “uncontroversial” is a necessary condition for the applicability of *Zauderer*. CSOAA ER14. But the disclosures required here readily qualify.

¹⁵ The contention that the Ninth Circuit has never applied *Zauderer* in cases not involving deceptive advertising, CSOAA Br. at 37, is incorrect. *See Env'tl. Def. Ctr., Inc. v. EPA*, 344 F.3d 832, 89 (9th Cir. 2003) (upholding requirement that storm sewer providers inform the public about the impacts of stormwater discharge).

The contention that the warning is subject to heightened scrutiny because it is content-based is equally meritless. If content, speaker, or viewpoint discrimination sufficed to expose commercial disclosures to heightened review *Zauderer* would be a dead letter. By definition, compelled disclosures require specific content. In *Zauderer* itself the Court upheld a requirement that certain speakers (attorneys) state specific content (that legal clients might be liable for litigation costs). 471 U.S. at 650. Similarly, however problematic viewpoint-based *restrictions* on speech may be, compelled warnings conveying a viewpoint have never been deemed subject to heightened review. *See, e.g.*, 27 U.S.C. § 215(a) (alcoholic beverage labels must state: “Women should not drink alcoholic beverages during pregnancy because of the risk of birth defects”); 15 U.S.C. § 1261(p)(1)(J)(i) (warnings on hazardous substances must state: “Keep out of the reach of children”). *Reed v. Town of Gilbert*, 135 S. Ct. 2218 (2015), which never mentions commercial speech, may safely be presumed not to have upended *sub silentio* decades of commercial speech jurisprudence.

A statement is “factual” if it makes a claim of fact, rather than expressing opinion, personal preference, or ideology. CSOAA ER14 (Slip Op.); *see also Disc. Tobacco City & Lottery, Inc. v. United States*, 674 F.3d 509, 556 (6th Cir. 2012) (contrasting facts with personal or political opinions); *Entm’t Software Ass’n v. Blagojevich*, 469 F.3d 641, 652 (7th Cir. 2006) (required labels were not factual, because “subjective” and “opinion-based”). The required warnings clearly make factual claims.

A factual claim is “uncontroversial” if its accuracy is solidly established. *See Disc. Tobacco*, 674 F.3d at 560 (asking whether required warnings were “accurate” as well as factual to determine whether *Zauderer* applied); *NEMA v. Sorrell*, 272 F.3d 104, 114 (2d Cir. 2001) (“mandated disclosure of accurate, factual, commercial information” is reviewed under *Zauderer*).

The accuracy of the warnings is confirmed by extensive research demonstrating that higher rates of SSB consumption are strongly linked to higher rates of obesity, diabetes, and tooth decay.

A. It Is Uncontroversial That Consuming SSBs Contributes To Obesity.

“All lines of evidence consistently support the conclusion that the consumption of sweetened beverages has contributed to the obesity epidemic.”¹⁶

¹⁶ Gail Woodward-Lopez et al., *To What Extent Have Sweetened Beverages Contributed to the Obesity Epidemic?* 14 PUB. HEALTH NUTR. 499 (2010), at http://banpac.org/pdfs/sfs/2011/sodas_cont_obesity_2_01_11.pdf

The “evidence that SSB intake is causally related to increased risk of obesity” is “compelling.”¹⁷ The strong link between SSB consumption and weight gain “meets all key criteria commonly used to evaluate causal relationships in epidemiology.”¹⁸ The 2015 Dietary Guidelines Advisory Committee (DGAC), the federal government’s foremost advisory body on nutrition, found “[s]trong and consistent evidence ... that intake of added sugars from food and/or sugar-sweetened beverages [is] associated with excess body weight.”¹⁹

1. There is Strong Evidence Proving the Connection Between SSB Consumption and Obesity.

The most respected meta-analyses and systematic reviews of randomized controlled trials and prospective cohort studies support the contribution of SSBs to weight gain and obesity. One study using World Health Organization (WHO) meta-analysis methodology found strong evidence that “intake of free sugars or sugar sweetened beverages is a determinant of body weight.”²⁰ Another high-quality meta-analysis concluded: “The weight of epidemiologic and experimental evidence indicates that a greater consumption of sugary drinks is associated with weight gain

¹⁷ Hu, *supra* n.2, at 612.

¹⁸ *Id.*

¹⁹ Scientific Report of the 2015 Dietary Guidelines Advisory Committee [DGAC], Part D, Ch. 6, at 20, at <http://health.gov/dietaryguidelines/2015-scientific-report/PDFs/Scientific-Report-of-the-2015-Dietary-Guidelines-Advisory-Committee.pdf>

²⁰ Lisa Te Morenga et al., *Dietary Sugars and Body Weight: Systematic Review and Meta-Analyses of Randomised Controlled Trials and Cohort Studies*, 346 *BMJ* e7492, 5, 7 (2012), at <http://www.bmj.com/content/bmj/346/bmj.e7492.full.pdf>

and obesity.”²¹ A recent analysis of the literature by the American Heart Association (AHA) found that “[h]igher SSB and added sugars intake has been strongly linked to excess weight gain and an increased risk of obesity” in children and adolescents.²²

Randomized controlled trials – considered the gold standard of scientific evidence – demonstrate that SSB consumption leads to weight gain. “[C]ontrolled trials provide consistent evidence that increasing or decreasing intake of dietary sugars ... is associated with corresponding changes in body weight.”²³ Notably, in a large, double-blind trial, children receiving 8 ounces per day of a sugar-sweetened beverage had a significantly greater increase in body weight and fat after 18 months than children receiving a similar sugar-free drink.²⁴

Large prospective cohort studies (studies tracking a population over time) have also yielded “a link between SSB consumption and development of obesity.”²⁵ A review by Harvard School of Public Health experts concluded, “Findings from

²¹ Vasanti Malik et al., *Intake of Sugar-Sweetened Beverages and Weight Gain*, 84 AM. J. CLINICAL NUTR. 274 (2006), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210834/pdf>

²² Miriam Vos et al., *Added Sugars and Cardiovascular Disease Risk in Children*, 134 CIRCULATION 439, at 8 (2016).

²³ Te Morenga et al., *supra* n.20, at 5.

²⁴ Janne C. de Ruyter et al., *A Trial of Sugar-Free or Sugar-Sweetened Beverages and Body Weight in Children*, 367 NEJM 1397 (2012), at <http://www.nejm.org/doi/full/10.1056/NEJMoa1203034>

²⁵ Vasanti Malik et al., *Sugar-Sweetened Beverages and Weight Gain in Children and Adults*, 98 AM. J. CLINICAL NUTR. 1084 (2013), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3778861>

well-powered prospective cohorts have consistently shown a significant association ... between SSB consumption and long-term weight gain and risk of type 2 diabetes.”²⁶ That link has held firm in studies of large cohorts including 50,000 nurses, 40,000 Black women, and 43,000 Chinese adults in Singapore.²⁷

2. Plaintiffs Rely on Flawed or Irrelevant Studies.

Plaintiffs’ experts fail to cast doubt on the link between SSB consumption and weight gain. Crucially, the ABA relies on studies that find no conclusive link between SSB consumption and weight gain *when total calorie consumption remains the same*.²⁸ But such a conclusion, even if accurate, is irrelevant. In real life total calorie consumption does *not* remain the same. SSB drinkers typically do not compensate by correspondingly reducing their calorie intake from other sources. Because beverages satisfy hunger less than do solid foods, consuming (non-viscous) beverages is not associated with a corresponding reduction in calorie intake from solid food.²⁹ In fact for many people – in particular for overweight populations –

²⁶ Hu, *supra* n.2, at 606.

²⁷ *Id.* at 608-09.

²⁸ *See, e.g.*, ABA Br. at 38-39; CSOAA Br. at 46-47; Kahn Report at ¶¶ 12, 45-61 (ABA ER624, 640-48).

²⁹ Doreen DiMeglio & Richard Mattes, *Liquid Versus Solid Carbohydrate: Effects on Food Intake and Body Weight*, 24 INT’L J. OBESITY & RELATED METABOLIC DISORDERS 794 (2000), at <http://www.ncbi.nlm.nih.gov/pubmed/10878689>; Julie Flood-Obbagy & Barbara Rolls, *The Effect of Fruit in Different Forms on Energy Intake and Satiety at a Meal*, 52 APPETITE 416 (2009), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664987/pdf/nihms97426.pdf>

sugary drinks actually stimulate cravings to eat *more*.³⁰ Thus SSB consumption results in an overall increase in calories consumed, thereby leading to weight gain.³¹

Plaintiffs have cited no research showing that SSB consumption does *not* contribute to weight gain. At best, they point to a few outlier studies that found the evidence for the contribution less conclusive than did other studies. This does not suffice to establish a controversy. Moreover, neutral investigators have found plaintiffs' preferred studies less reliable. For example, the DGAC's examination of three meta-analyses concluded that the two finding a strong connection between SSBs and body weight³² were "stronger" than the third,³³ which found the evidence "equivocal," because the last (industry-funded, *see infra* §I.D) study included short-term studies of interventions designed to reduce SSB intake; its findings reflected

³⁰ Alessio Moneleone et al., *Responses of Peripheral Endocannabinoids and Endocannabinoid-Related Compounds to Hedonic Eating in Obesity*, 55 EUR. J. NUTRITION 1799, 1800 (2016), at <http://link.springer.com/article/10.1007%2Fs00394-016-1153-9>; Miguel Alonso-Alonso et al., *Food Reward System: Current Perspectives and Future Research Needs*, 73(5) NUTR. REV. 296, 296-98 (2015) at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477694/pdf/nuv002.pdf>

³¹ Vasanti Malik et al., *Sugar-Sweetened Beverages and Risk of Metabolic Syndrome and Type 2 Diabetes*, 33 DIABETES CARE 2477, 2482 (2010), at <http://care.diabetesjournals.org/content/diacare/33/11/2477.full.pdf>; An Pan & Frank Hu, *Effects of Carbohydrates on Satiety: Differences Between Liquid and Solid Food*, 14 CURR. OPIN. CLIN. NUTR. METAB. CARE 385 (2011), at <http://www.kickthecan.info/sites/default/files/documents/00075197-201107000-00013.pdf>; Vos et al., *supra* n.22, at 8; Te Morenga et al., *supra* n.20, at 1.

³² Te Morenga et al., *supra* n.20; Malik et al., *supra* n.25.

³³ Kathryn Kaiser et al., *Will Reducing Sugar-Sweetened Beverage Consumption Reduce Obesity?*, 14 OBESITY REV. 620 (2013), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929296> (cited in Kahn Report, at ¶ 34 nn.26 & 27 (ABA ER635-36)).

participants' compliance with interventions, not necessarily the impact of SSBs on body weight.³⁴ Meta-analyses relied on by plaintiffs³⁵ failed to include long-term cohort studies, making them more vulnerable to variations in participant compliance.³⁶ Various of the studies reviewed in those meta-analyses are further flawed by small sample sizes, short duration, lack of blinding, overstating of subgroup findings, problems with randomization, and again poor respondent compliance.³⁷

B. It Is Uncontroversial That Consuming SSBs Contributes To Type 2 Diabetes.

The science is equally unequivocal that SSB consumption contributes to diabetes. “Compelling evidence indicates that reducing SSBs will have significant impact on the prevalence of ... T2D [type 2 diabetes].”³⁸ The DGAC gave its highest grade, “Strong,” to evidence “that higher consumption of added sugars, especially sugar-sweetened beverages, increases the risk of type 2 diabetes among adults.”³⁹ Data from a major long-term study show that replacing SSBs with water⁴⁰

³⁴ DGAC Report, *supra* n.19, Part D, Ch. 6, at 21.

³⁵ *See, e.g.*, Kahn Report at ¶ 34 (ABA ER635-36).

³⁶ Hu, *supra* n.2, at 10 (discussing Kaiser et al., *supra* n.33).

³⁷ Richard Mattes et al, *Nutritively Sweetened Beverage Consumption and Body Weight*, 12 OBESITY REV. 346 (2011), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3169649>

³⁸ Hu, *supra* n.2, at 617.

³⁹ DGAC Report, *supra* n.19, Part D, Ch. 6, at 20, 22.

or coffee⁴¹ is associated with significantly lower risk of diabetes. A recent meta-analysis, based on studies including over 300,000 participants, concluded that there was “an excess risk of 26% [for T2D] associated with higher consumption of SSBs.”⁴² The evidence was found to “meet the key . . . criteria to establish a causal relationship between SSB consumption and risk of T2D.”⁴³

Studies finding the link between SSBs and diabetes to be uncertain generally suffer from the same fundamental methodological problem explained *supra* regarding obesity: they “adjust” for calorie intake or body mass. But SSBs make people heavier, and greater weight increases their risk of diabetes. If “approximately half of the effects of SSBs on type 2 diabetes [a]re mediated through obesity,” then “adjustment for [calorie intake and BMI] will tend to underestimate any effect.”⁴⁴

⁴⁰ An Pan et al., *Plain-Water Intake and Risk of Type 2 Diabetes in Young and Middle-Aged Women*, 95 AM. J. CLIN. NUTR. 1454 (2012) (citing Nurses’ Health Study II), at <http://ajcn.nutrition.org/content/95/6/1454.full.pdf>

⁴¹ Lawrence de Koning et al., *Sugar Sweetened and Artificially Sweetened Beverage Consumption and Risk of Type 2 Diabetes in Men*, 93 AM. J. CLIN. NUTR. 1321 (2011), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3095502/pdf/ajcn93501321.pdf>

⁴² Malik et al., *supra* n.31, at 2480.

⁴³ Hu, *supra* n.2, at 613.

⁴⁴ Malik et al., *supra* n.31, at 2482, 2481 (citing Matthias Schulze et al., *Sugar-Sweetened Beverages, Weight Gain, and Incidence of Type 2 Diabetes in Young and Middle-Aged Women*, 292 JAMA 927 (2004), at <http://jama.jamanetwork.com/article.aspx?articleid=199317>).

In fact, SSBs contribute to diabetes even beyond their contribution to obesity. The DGAC found “[s]trong” evidence that the relationship between SSB consumption and T2D onset “is not fully explained by body weight.”⁴⁵ A recent meta-analysis of 17 cohort studies found that consuming one additional SSB per day was associated with a 13% increased risk of diabetes, *even after adjusting for BMI*.⁴⁶ SSBs’ additional contributions to diabetes risk may stem from

- High levels of rapidly absorbable carbohydrates,⁴⁷
- Fat accumulation in the liver and muscle,⁴⁸ which may promote insulin resistance;⁴⁹ and/or
- Increased blood levels of uric acid,⁵⁰ associated with the development of insulin resistance and diabetes.⁵¹

⁴⁵ DGAC Report, *supra* n.19, Part D, Ch. 6, at 20, 22.

⁴⁶ Vasanti Malik & Frank Hu, *Fructose and Cardiometabolic Health: What the Evidence From Sugar-Sweetened Beverages Tells Us*, 66 J. AM. COLL. CARDIOL. 1615 (2015), at <http://content.onlinejacc.org/article.aspx?articleID=2445331>. The total increased risk was 18%.

⁴⁷ Malik, *supra* n.31, at 2482.

⁴⁸ Maria Maersk et al., *Sucrose-Sweetened Beverages Increase Fat Storage in the Liver, Muscle, and Visceral Fat Depot*, 95 AM J. CLIN. NUTR. 283 (2012), at <http://ajcn.nutrition.org/content/95/2/283.full.pdf+html>

⁴⁹ Malik & Hu, *supra* n.46.

⁵⁰ Kimber Stanhope et al., *A Dose-Response Study of Consuming High-Fructose Corn Syrup–Sweetened Beverages on Lipid/Lipoprotein Risk Factors for Cardiovascular Disease In Young Adults*, 101 AM. J. CLIN. NUTR. 1144 (2015), at <http://ajcn.nutrition.org/content/early/2015/04/22/ajcn.114.100461.full.pdf>

⁵¹ Richard Johnson et al., *Sugar, Uric Acid, and the Etiology of Diabetes and Obesity*, 62 DIABETES 3307, 3310 (2013), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3781481/pdf/3307.pdf>

Of course, as the district court concluded, CSOAA ER20, the contribution of SSBs to obesity alone, which in turn is a primary risk factor for T2D, suffices to establish that consuming SSBs contributes to diabetes.

C. It Is Uncontroversial That Consuming SSBs Contributes To Tooth Decay.

The contribution of SSBs to tooth decay is undisputed. “Sugars are undoubtedly the most important dietary factor in the development of dental caries.”⁵² There is “overwhelming evidence of [their] unique role in causing a worldwide caries epidemic.”⁵³ A WHO systematic review of studies found a “consistent association” of more dental caries with higher sugars intake.⁵⁴

The link between sugar and caries is further demonstrated by situations of sugar scarcity. Levels of dental caries in Iraqi children halved after sanctions led to

⁵² Aubrey Sheiham & W. Phillip James, *A New Understanding of the Relationship Between Sugars, Dental Caries and Fluoride Use*, 17 PUB. HEALTH NUTR. 2176 (2014), at <https://www.cambridge.org/core/journals/public-health-nutrition/article/a-new-understanding-of-the-relationship-between-sugars-dental-caries-and-fluoride-use-implications-for-limits-on-sugars-consumption/0FF6455AFB95AAE91DBD1636C3DE2C7C/core-reader>

⁵³ Aubrey Sheiham & W. Phillip James, *Diet and Dental Caries: The Pivotal Role of Free Sugars Reemphasized*, 94 J. DENT. RES. 1341, 1 (2015), at https://www.researchgate.net/profile/Aubrey_Sheiham/publication/280906772_Diet_and_Dental_Caries_The_Pivotal_Role_of_Free_Sugars_Reemphasized/links/55e570b208aeb1a7ccba1fd.pdf

⁵⁴ Paula Moynihan & S.A.M. Kelly, *Effect on Caries of Restricting Sugars Intake: Systematic Review to Update WHO Guidelines*, 93 J. DENT. RES. 8, at 10 (2014), at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872848/pdf/10.1177_0022034513508954.pdf

reduced sugar consumption.⁵⁵ Similar results emerged from longitudinal studies in Japan during and after the Second World War.⁵⁶

As one public health dentist summarized: “The primary cause of dental cavities is a diet high in sugar, and the primary source of sugar in children’s diets is sugary drinks.”⁵⁷

D. Any Appearance of ‘Controversy’ About The Harms Of SSBs Owes More To The Influence Of The Sugar And Beverage Industries Than To Objective Science.

Any purported dispute over the contribution of SSB consumption to obesity, diabetes, and tooth decay has less to do with the merits of the well-designed and unbiased studies that clearly and consistently establish the link⁵⁸ than it has to do with spending by the sugar and soft drink industries to influence research: “The [sugar and soda] industry’s tactic is to undermine all the scientific evidence by supporting scientists who offer contrary evidence, thereby creating a ‘controversy.’”⁵⁹

Between 2010 and 2015, for example, Coca-Cola alone gave almost \$120 million in grants to medical, health, and community organizations, including \$29

⁵⁵ *Id.* at 3.

⁵⁶ *Id.*

⁵⁷ Rob Beaglehole, *Dentists and Sugary Drinks: A Call to Action*, 146 J. AM. DENTAL ASS’N 73 (Feb. 2015), at [http://jada.ada.org/article/S0002-8177\(14\)00060-9/pdf](http://jada.ada.org/article/S0002-8177(14)00060-9/pdf)

⁵⁸ As noted, even that manufactured controversy involves the nature of the contribution, not whether it exists.

⁵⁹ Sheiham & James, *supra* n.53, at 5.

million to fund academic research.⁶⁰ Recently, “[a] group called the Global Energy Balance Network (GEBN), led by scientists and created by Coca-Cola, ... shut[] down after months of pressure from public health authorities who said that the group’s mission was to play down the link between soft drinks and obesity.”⁶¹ In the words of a prominent nutrition professor, “Coca-Cola’s agenda here is very clear: Get these researchers to confuse the science.”⁶²

Recently discovered internal sugar industry documents provide “compelling evidence” that industry-funded efforts to confuse the science concerning the harms of sugar consumption are nothing new. Already in the 1960s research indicated that high-sugar diets were linked to coronary heart disease; in response “a sugar trade association not only paid for but also initiated and influenced research expressly to exonerate sugar as a major risk factor for coronary heart disease.”⁶³

Funding for industry-friendly studies has an effect. The research sponsored by the sugar industry in the 1960s “derail[ed] the discussion about sugar for

⁶⁰ Anahad O’Connor, *Coke Spends Lavishly on Pediatricians and Dietitians*, N.Y. TIMES (Sept. 28, 2015), at <http://nyti.ms/1Fy1mu0>

⁶¹ Anahad O’Connor, *Research Group Funded by Coca-Cola to Disband*, N.Y. TIMES (Dec. 1, 2015), <http://nyti.ms/1ltB9U2>

⁶² Anahad O’Connor, *Coca-Cola Funds Scientists Who Shift Blame for Obesity Away From Bad Diets*, N.Y. TIMES (Aug. 9, 2015) (quoting Marion Nestle), at <http://nyti.ms/1KZUZ4e>.

⁶³ Marion Nestle, *Food Industry Funding of Nutrition Research: The Relevance of History for Current Debates*, 176 JAMA INTERN MED. 5400 (2016), at <http://archinte.jamanetwork.com/article.aspx?articleid=2548251> (citing Cristin Kearns et al., *Sugar Industry and Coronary Heart Disease Research: A Historical Analysis of Internal Industry Documents*, 176 JAMA INTERN MED. 5394 (2016), at <http://archinte.jamanetwork.com/article.aspx?articleid=2548255>).

decades.”⁶⁴ Coca-Cola’s recent grants have “already begun to shape the international debate around obesity.”⁶⁵ A few months after receiving \$1 million from the Coca-Cola Company, the American Academy of Pediatric Dentistry stated that “scientific evidence is not clear on the exact role that soft drinks play in terms of children’s oral disease,” contradicting its previous position.⁶⁶

More generally, a 2007 study found that medical research articles about soft drinks, juice, and milk “sponsored exclusively by food/drinks companies were four to eight times more likely to have conclusions favorable to the financial interests of the sponsoring company.”⁶⁷ A 2013 analysis found that studies “funded by Coca-Cola, PepsiCo, the American Beverage Association and the sugar industry were five times more likely to find no link between sugary drinks and weight gain.”⁶⁸ Of

⁶⁴ Anahad O’Connor, *How the Sugar Industry Shifted Blame to Fat*, N.Y. TIMES (Sept. 12, 2016), at <http://nyti.ms/2c5GXmW> (quoting medicine professor Stanton Glantz, a co-author of the recent JAMA historical analysis of industry documents).

⁶⁵ O’Connor, *supra* n.60.

⁶⁶ Rob H. Beaglehole, *Dentists and Sugary Drinks*, *supra* n.57, at 74. The Academy now again acknowledges sugar consumption as a risk factor for caries. *Id.*

⁶⁷ Lenard Lesser et al., *Relationship Between Funding Source and Conclusion Among Nutrition-Related Scientific Articles*, 4(1) PLOS MED. 41, 44 (2007), at <http://journals.plos.org/plosmedicine/article/asset?id=10.1371%2Fjournal.pmed.0040005.PDF>; accord Lenny Vartanian et al (2007). *Effects of Soft Drink Consumption on Nutrition and Health*, 97 AJPH 667 (2013), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1829363/pdf/0970667.pdf>

⁶⁸ O’Connor, *supra* n.62 (citing Maira Bes-Rastrollo et al., *Financial Conflicts of Interest and Reporting Bias Regarding the Association Between Sugar-Sweetened Beverages and Weight Gain: A Systematic Review of Systematic Reviews*, 10 PLOS Med. 1 (2013), at <http://journals.plos.org/plosmedicine/article/asset?id=10.1371%2Fjournal.pmed.1001578.PDF>).

twelve reviews reporting no financial conflicts of interest, ten found a positive association between SSB consumption and weight gain; meanwhile, of six reviews reporting industry funding, five found the evidence insufficient to support a positive association.⁶⁹

Given these findings, it is worth noting the extent to which plaintiffs rely on researchers who have received industry funding. This is true, for example, of both articles cited as “conclud[ing] that SSBs can be consumed as part of a healthy diet.” CSOAA Br. at 9.⁷⁰ Other sources relied on in Dr. Kahn’s Affidavit also received

⁶⁹ Bes-Rastrollo et al., *supra* n.68.

⁷⁰ 1. Richard Kahn & David Sievenpiper, *Dietary Sugar and Body Weight*, 37 DIABETES CARE 957 (2014), at <http://care.diabetesjournals.org/content/37/4/957.full.pdf>. Sievenpiper received funding and fees from Coca-Cola and the Dr. Pepper Snapple Group. *Id.* at 961. An author of one of the studies reviewed commented: “Kahn and Sievenpiper misrepresented the outcome of our trial of sugar-sweetened beverages and body weight.” Martijn Katan, *Comment on Kahn & Sievenpiper, Dietary Sugar and Body Weight*, 37 DIAB. CARE e188 (2014), at <http://care.diabetesjournals.org/content/37/8/e188.full.pdf>. The *Dietary Sugar* article is heavily relied on throughout the affidavit of Dr. Richard Kahn, plaintiffs’ principal scientific expert. *E.g.* Kahn Report, nn.5, 10, 11, 57, 60, 62 (ABA ER626, 628, 647, 649).

2. Valerie Duffy, *Position of the American Dietetic Association: Use of Nutritive and Nonnutritive Sweeteners*, 104 J. AM. DIETETIC ASS’N 255 (2004). The American Dietetic Association (ADA), now known as the Academy of Nutrition and Dietetics (AND), has received \$1.7 million in funding from Coca-Cola since 2010. O’Connor, *supra* n.60. The same organization, after receiving sponsorship from the National Association of Margarine Manufacturers, stated there was “little scientific evidence” for reducing consumption of trans-fatty acids. Marian Burros, *Additives in Advice on Food?*, N.Y. TIMES (Nov. 15, 1995), at <http://www.nytimes.com/1995/11/15/garden/eating-well-additives-in-advice-on-food.html>. In reality trans fats are so dangerous that they are now prohibited entirely. Brady Dennis,

significant industry funding.⁷¹

In sum, alleged scientific “controversy” over the harms of SSBs is largely based on research funded by the sugar and soft drink industries. The industries’ efforts evoke “the decades-long arguments that some prominent, industry-funded scientists made about lead in paint and gasoline. The risks aren’t clear, they said; the studies are flawed.”⁷² Indeed, the soft drink industry’s efforts have been deemed “reminiscent of tactics used by the tobacco industry, which enlisted experts to become ‘merchants of doubt.’”⁷³

FDA Moves to Ban Trans Fat From US Food Supply, WASH. POST (June 16, 2015), <http://wpo.st/30Cz1>

⁷¹ For example, Dr. Kahn relies on articles authored and co-authored by James Rippe. *E.g.*, Kahn Report, nn.12, 34 (ABA ER629, 638). Rippe’s research group receive \$10 million in funding from a corn syrup industry trade group; Rippe personally received a \$41,000-per-month retainer. Eric Lipton, *Rival Industries Sweet-Talk the Public*, N.Y. TIMES (Feb. 11, 2014), at <http://nyti.ms/1dipCQD>. A respected scientist concluded that prominent flaws in Rippe’s study suggest that “the objective of this industry-sponsored study was not to answer an important public health question, but to ... assure the public that the current level of sugar consumption is safe and maintain the state of controversy.” Kimber Stanhope, *Sugar Consumption, Metabolic Disease, and Obesity*, 53 CRIT. REV. CLIN. LAB. SCI. 52 (2015) at 7, at <http://www.tandfonline.com/doi/full/10.3109/10408363.2015.1084990>. (Kahn himself cites Stanhope. ABA ER639.) Dr. Kahn also relies on Kaiser et al., *supra* n.33 (cited at ABA ER635-36). Co-author David Allison was a paid consultant to Coca-Cola. Stephanie Saul, *Conflict on the Menu*, N.Y. TIMES (Feb. 16, 2008), at <http://nyti.ms/2chceTV>

⁷² Tom Farley, SAVING GOTHAM 124 (2015) (“Meanwhile, hundreds of thousands of children were getting brain damage from lead poisoning.”)

⁷³ O’Connor, *supra* n.62 (quoting prominent nutrition professor Barry Popkin).

E. There Is Broad Consensus Among National And International Public Health Organizations That Consumption of SSBs Should Be Limited In Order To Reduce Chronic Disease.

1. There Exists a Broad Consensus.

Despite industry’s continuing efforts, the most respected voices in public health agree that SSBs contribute to obesity, diabetes and tooth decay, and uniformly recommend limiting their consumption. In the words of the 2015 DGAC: “Obesity, type 2 diabetes, ... and dental caries are major public health concerns. Added sugars intake negatively impacts all of these conditions, and strong evidence supports reducing added sugars intake to reduce health risks.”⁷⁴ The United States Surgeon General has placed “reducing consumption of sodas and juices with added sugars” first on a list of changes needed to improve the nation’s health.⁷⁵ The World Health Organization grades as “strong” the evidence supporting guidelines that children reduce their intake of SSBs and that everyone reduce intake of free sugars to no more than 10% of total calories.⁷⁶ The CDC calls on communities to

⁷⁴ DGAC *supra* n.19, Part D, Ch. 6, at 26.

⁷⁵ *The Surgeon General’s Vision for a Healthy and Fit Nation, Fact Sheet* (2010), at http://www.surgeongeneral.gov/priorities/healthy-fit-nation/obesityvision_fact_sheet.html

⁷⁶ WORLD HEALTH ORGANIZATION, *Guideline: Sugars Intake for Adults and Children* (2015), at http://apps.who.int/iris/bitstream/10665/149782/1/9789241549028_eng.pdf

“discourage consumption of sugar-sweetened beverages.”⁷⁷ The American Diabetes Association notes that “[r]esearch has shown that drinking sugary drinks is linked to type 2 diabetes,” and “recommends that people should avoid intake of sugar-sweetened beverages.”⁷⁸ The American Heart Association “recommends reductions in added sugars.”⁷⁹ The American Academy of Pediatrics has noted “[p]otential health problems associated with high intake of sweetened drinks, [including] overweight or obesity [and] dental caries.”⁸⁰ The American Dental Association warns against “consum[ing] too many sugar-filled sodas.”⁸¹ The American Medical Association,⁸² and the Institute of Medicine,⁸³ likewise recommend reducing SSB consumption – as do, of course, the signatories to this brief.

⁷⁷ CDC, *Recommended Community Strategies and Measurements to Prevent Obesity in the U.S.*, MORB. AND MORT. WEEKLY REP., (July 24, 2009), at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5807a1.htm/>

⁷⁸ AM. DIABET. ASS’N, *Diabetes Myths*, at <http://www.diabetes.org/diabetes-basics/myths>

⁷⁹ Linda Van Horn et al., *Translation and Implementation of Added Sugars Consumption Recommendations*, 122 CIRCULATION 2470 (2010), at <http://circ.ahajournals.org/content/122/23/2470.long>

⁸⁰ AAP, Comm. on Sch. Health, *Soft Drinks in Schools*, 113 PEDIATRICS (Jan. 2004), at <http://pediatrics.aappublications.org/content/pediatrics/113/1/152.full.pdf>

⁸¹ AM. DENT. ASS’N, Mouth Healthy, *Diet and Dental Health*, at <http://www.mouthhealthy.org/en/az-topics/d/diet-and-dental-health>

⁸² Sarah Barlow, *Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity*, 120 PEDIATRICS S164–S192 (2007), at http://pediatrics.aappublications.org/content/120/Supplement_4/S164

2. The FDA Concur in the Consensus.

Contrary to plaintiffs' representations, CSOAA Br. at 9-11, 42, 46, the FDA is no exception to this consensus. In its latest rulemaking on nutrition labeling,⁸⁴ the FDA noted that “the evidence on sugar-sweetened beverages and body weight/adiposity is strong and consistent,”⁸⁵ and that “lower intakes of sugar-sweetened foods and beverages were part of a healthy dietary pattern that was found to be strongly associated with a decreased risk of [cardio-vascular disease].”⁸⁶

The FDA's statement that “*some* added sugars can be included as part of a healthy dietary pattern”⁸⁷ does *not* endorse even “moderate” consumption of SSBs. For most people a single 20-ounce bottle of Coca-Cola by itself exceeds the FDA's recommended daily limit for added sugars.⁸⁸ What can be included in a healthy diet are “nutrient dense foods with small amounts of added sugars, such as whole-grain breakfast cereals or fat-free yogurt” or “limited amounts of added sugars ... to improve the palatability of” tart fruits and vegetables⁸⁹ – not SSBs.

⁸³ INST. OF MEDICINE, *Local Government Actions to Prevent Childhood Obesity* (2009) at 5, at https://www2.aap.org/obesity/community_advocacy/IOM.pdf

⁸⁴ FDA, *Food Labeling: Revision of the Nutrition and Supplement Facts Labels*, 81 Fed. Reg. 33742 (May 27, 2016).

⁸⁵ *Id.* at 33803.

⁸⁶ *Id.* at 33764.

⁸⁷ *Id.* at 33829 (emphasis added).

⁸⁸ Willett Report, at ¶ 15 (ABA ER195).

⁸⁹ 81 Fed. Reg. at 33818.

The FDA’s choice to require labeling of *all* added sugars⁹⁰ – even as it recognized the outsize contribution of SSBs to the volume of added sugars in the American diet⁹¹ – presents not a constitutional issue but a difference in approach between the FDA and San Francisco about how consumers might be best informed.⁹²

F. The Warnings Are Not Misleading.

Besides being literally accurate, the warnings are not misleading in effect. As noted by the district court, no reasonable person would read the warnings to imply that any individual who consumes a single soft drink will inevitably suffer from obesity, diabetes, and tooth decay. CSOAA ER16, 19-20.

However, even levels of consumption widely seen as “moderate” *are* problematic: drinking just one sugar-sweetened beverage per day is associated with an 80% increased risk of diabetes for women of developing diabetes⁹³ and a 55% increased risk of obesity for children.⁹⁴ Indeed, based on a recent comprehensive literature review, the AHA now recommends that children and adolescents limit

⁹⁰ *Id.* at 33980.

⁹¹ *E.g., id.* at 33765; 33803.

⁹² *See, e.g., id.* at 33765.

⁹³ Schulze, *supra* n.44.

⁹⁴ Te Morenga et al., *supra* n.20.

their SSB consumption to one or fewer 8-ounce servings *per week*, evaluating the evidence in favor of that recommendation at Level A, its highest level.⁹⁵

Nor is it misleading to single out SSBs for warnings. It is false that calories from SSBs are “just like calories from all other foods.” CSOAA Br. at 4. The association between sugary beverage consumption and weight gain is stronger than for any other food.⁹⁶

SSBs contribute to weight by adding extra calories to the diet because of ... an incomplete compensatory reduction in solid calories.... These beverages contribute to diabetes in part by increasing body weight but also independently through their glycemic effects and metabolic role of fructose.⁹⁷

In any event, SSBs by themselves compose almost 50% of all added sugar intake in the American diet⁹⁸; by some calculations they are the largest source of calories of any food group.⁹⁹ “Consumption is particularly high among African-Americans, Hispanics and low-income individuals – population groups with disproportionately high prevalence of obesity and obesity-related chronic

⁹⁵ Vos et al., *supra* n.22, at 12.

⁹⁶ Woodward-Lopez et al., *supra* n.16.

⁹⁷ Willett Report, at ¶ 11 (ABA ER193).

⁹⁸ USDA and HHS, DIETARY GUIDELINES FOR AMERICANS 2015-2020, Ch. 2, Fig. 2-10, at <http://health.gov/dietaryguidelines/2015/guidelines>. The FDA concurs. *See* 81 Fed. Reg. at 33803 (“sugar-sweetened beverages ... are the primary source of added sugars in the American diet”).

⁹⁹ Hu, *supra* n.2, at 606.

diseases.”¹⁰⁰ Regardless of whether added sugars are more harmful than other sugars, SSB consumption tends to substantially increase total sugar and calorie intake, while SSBs lack the benefits of beverages naturally containing sugar. *See* CSOAA ER18 (Slip Op.). Milk, for example, besides providing protein and valuable minerals such as calcium, actually *reduces* diabetes risk.¹⁰¹ As the largest source of added sugar in the U.S. diet, especially among the most vulnerable groups, and without nutritional benefit, SSBs readily merit a warning.

In sum, the accuracy of the warnings is established by overwhelming evidence. While “science is almost always debatable at some level,” CSOAA ER15 (Slip Op.), when an evidence-based nutrition determination is endorsed by the United States Surgeon General, the CDC, the Institute of Medicine, the DGAC, the World Health Organization, and a host of preeminent national and international public health NGOs, that determination can hardly be deemed ‘controversial.’

¹⁰⁰ *Id.* at 608 (citing National Health and Nutrition Examination Survey (NHANES) 2009-10); *see also* Cynthia Ogden et al., *Consumption of Sugar Drinks in the United States, 2005-2008*, Nat. Ctr. Health Stat., NCHS Data Brief No. 71 (Aug. 2011) at 3, at <http://www.cdc.gov/nchs/data/databriefs/db71.pdf>

¹⁰¹ Peter Elwood et al., *Consumption of Milk and Dairy Foods and the Incidence of Vascular Disease and Diabetes*, 45 *Lipids* 925 (2010), at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950929>

III. THE ORDINANCE READILY PASSES FIRST AMENDMENT REVIEW UNDER *ZAUDERER*.

Because the warnings are factual and uncontroversial, they are reviewed under the deferential standard set forth in *Zauderer v. Office of Disciplinary Counsel*. 471 U.S. 626. The warnings easily pass muster.

A. The Ordinance Is Reasonably Related To The City’s Interests.

Ordinance No. 100-15 is “reasonably related,” *Zauderer*, 471 U.S. at 651, to San Francisco’s interest in “improved ... health.” S.F. Health Code § 4201. Given the well-established contribution of added sugars to three epidemics, and the large proportion of added sugar consumption – without countervailing benefits – attributable to SSBs, the district court correctly concluded that it is reasonable for San Francisco’s response to focus on sugar-sweetened beverages. CSOAA ER17-18.

Focusing on SSB *advertising* in particular is also reasonable. SSB consumption is more prevalent among African-Americans and Hispanics, populations disproportionately affected by obesity, diabetes, and tooth decay.¹⁰² One reason is that beverage companies disproportionately market to those communities. African-American children and teens saw more than twice as many ads for soft drinks on English-language TV in 2013 as did Caucasian children and

¹⁰² Hu, *supra* n.2, at 608 (citing National Health and Nutrition Examination Survey (NHANES) 2009-10).

teens.¹⁰³ Hispanic preschoolers and children saw 23% more Spanish-language TV ads for sugary drinks in 2013 than in 2010, even as the number of SSB ads seen by children overall declined.¹⁰⁴

Moreover, the warnings are likely to be effective. Studies show that parents are less likely to choose a sugary drink for their child when those drinks have health warnings.¹⁰⁵ Finally, the warnings are desired by consumers.¹⁰⁶

B. The Required Warnings Are Not Unduly Burdensome.

The only other constitutional limitation on commercial disclosures is that “unduly burdensome disclosure requirements might offend the First Amendment by chilling protected commercial speech.” *Zauderer*, 471 U.S. at 651. Neither the size of the required warnings nor the possibility that they might deter (or displace) some advertising imposes an unconstitutional burden.

¹⁰³ Jennifer Harris et al., *Sugary Drink FACTS 2014: Some Progress but Much Room to Improve*, RUDD CTR. FOR FOOD POLICY AND OBESITY (2014) at 11, at <http://www.rwjf.org/content/dam/farm/reports/reports/2014/rwjf416417>

¹⁰⁴ *Id.*

¹⁰⁵ See Roberto et al., *supra* n.3.

¹⁰⁶ See Alexei Koseff, *California Voters Favor Taxes, Labels for Sugary Drinks*, SAC. BEE (Feb. 3, 2016) (78% of consumers in Field Poll favored health warnings on sugary drinks), at <http://www.sacbee.com/news/politics-government/capitol-alert/article58298533.html>

1. Soda Companies' Allegations That the Ordinance Would Cause Them to Switch Their Advertising to Other Media Do Not Constitute Evidence of a Chilling Effect.

The possibility that the warnings might be so persuasive as to cause soda companies to withdraw from advertising in the covered media, even if true,¹⁰⁷ would not constitute a chilling effect under the First Amendment. In stressing that “the force of the ... advertisement is not likely to be overcome by the ... warning,” CSOAA ER25, the district court suggested – untenably – that the warnings might be unconstitutional if they were more effective in deterring SSB consumption. But it cannot be correct that the Constitution countenances health warnings only so long as they are ineffective. Indeed, such a standard would be nearly impossible to meet: an ineffective warning would presumably fail to be “reasonably related” to the government’s interest, while an effective warning would “unduly burden” the advertiser’s speech.

In reality, the warning’s effectiveness is irrelevant. Fear of being refuted by more persuasive counter-speech does not constitute “chilling” under the First Amendment. Rather, speech is chilled when it is prevented or deterred by coercive interference. *See, e.g. Virginia v. Black*, 538 U.S. 343, 365 (2003) (plurality

¹⁰⁷ The district court did not abuse its discretion in finding the advertisers’ contention that the Ordinance would lead them to withdraw their advertising “self-serving” and “unconvincing.” CSOAA ER26. If such self-serving declarations sufficed to show a violation of the First Amendment, advertisers could ve any regulation ruck down simply by claiming that it will cause them to cease their activities.

opinion) (speech was chilled by threat of prosecution); *Gibson v. Fla. Legislative Investigation Comm.*, 372 U.S. 539, 557 (1963) (speech was chilled by threats of violence). The only case in which the Supreme Court has found commercial speech to be unduly burdened by disclosures concerned a requirement that statements of specialist attorney qualifications be accompanied by disclaimers so extensive as to make it *physically impossible* for attorneys to state their qualifications on business cards or letterheads. *Ibanez v. Florida Dept. of Bus. and Prof. Reg.*, 512 U.S. 136, 146-147 (1994). Here, by contrast, no matter how persuasive the required warning is in relation to the advertisement it accompanies, advertisers remain free and able to disseminate their own messages.

2. The Size of the Warnings Does Not Make Them Unduly Burdensome.

Similarly, the required warnings are not so large as to make it impossible for advertisers to transmit their messages. As the district court concluded, the contention that the warning size is unduly burdensome is belied by widespread acceptance of other rules that mandate warnings of comparable or greater proportions. CSOAA ER28 n.17. Notably, the Supreme Court has upheld a required 4-second disclosure as applied to a 10-second broadcast political campaign ad. *Citizens United v. Fed. Election Comm'n*, 558 U.S. 310, 367-71 (2010). If requiring 40% of instances of maximally protected core political speech to be set aside for disclosures does not offend the First Amendment, reserving 20%

of less protected commercial advertisements for disclosures can hardly be unduly burdensome to First Amendment interests.

CONCLUSION

Because the Ordinance requires only that vitally important factual and uncontroversial information be included in commercial advertisements, plaintiffs are unlikely to succeed on the merits of their First Amendment challenge.

The order of the district court should be affirmed.

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Respectfully submitted,

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APPENDIX

Statements of Interest of Amici Curiae

1. The American Heart Association (AHA) is a voluntary health organization that, since 1924, has been devoted to saving people from heart disease and stroke – the two leading causes of death in the world. AHA teams with millions of volunteers to fund innovative research, fight for stronger public health policies, and provide lifesaving tools and information to prevent and treat these diseases. The Dallas-based association with local offices in all 50 states, as well as in Washington DC and Puerto Rico, is the nation’s oldest and largest voluntary organization dedicated to fighting heart disease and stroke.

2. The American Academy of Pediatrics, California (AAP-CA) is an incorporated nonprofit member association comprising the four AAP California chapters statewide and representing approximately 5,000 board-certified primary care and subspecialty pediatricians. The mission of AAP-CA is to promote the health and well-being of all children and youth living in California. One of the organization's top goals is the prevention of childhood obesity. Pediatricians see first-hand in their practices the devastating effects obesity can have on children, too often resulting in serious and life-long health problems, and even reducing life expectancy. Type 2 diabetes is increasingly being diagnosed in youth, and now accounts for 20% to 50% of new-onset diabetes case patients, disproportionately

affecting minority racial/ethnic groups. AAP-CA is active in activities and advocacy to educate patients, families and the public regarding the growing evidence that links the prevalent consumption of sugar sweetened beverages to the devastating obesity epidemic in children. Further, pediatricians are committed to supporting strategies that reduce the incidence of dental caries (cavities), the most common infectious disease of early childhood, which has been strongly linked to sugar sweetened beverage consumption.

3. Since 1948, the California Academy of Family Physicians (CAFP) has championed the cause of family physicians and their patients. With a strong collective voice of more than 9,000 family physician, family medicine resident and medical student members, the CAFP is the largest primary care medical society in California and the largest chapter of the American Academy of Family Physicians. CAFP works to solve family physicians' professional challenges and health policy concerns, including the effort to ensure patients are aware of the adverse health effects of consuming sugar-sweetened beverages. Through advocacy and education, CAFP fights to expand access to high quality and cost-effective patient care for California.

4. The California Chapter of the American Association of Clinical Endocrinologists (AACE) represents over 500 clinical endocrinologists across the state of California. AACE is the largest association of clinical endocrinologists,

representing over 6,500 endocrinologists in the United States and in 90 countries. The great majority of AACE members are certified in Endocrinology and Metabolism and concentrate on the treatment of patients with diabetes, thyroid disorders, obesity, osteoporosis and other endocrine and metabolic disorders. Our organization is also committed to advocacy for our patients and their family members. As an organization, we feel strongly that this law warning about the health effects of sugar-sweetened beverages will have a positive impact on our communities.

5. The California Endowment, a private, statewide health foundation, was established in 1996 to expand access to affordable, quality health care for underserved individuals and communities, and to promote fundamental improvements in the health status of all Californians. The Endowment has a long history and commitment to ending childhood obesity and over the years has worked with health professionals, statewide advocates, and community organizations to address the harmful effects of overconsumption of sugar sweetened beverages. Health studies and food mapping research show direct links between poverty, food access, the proliferation of junk food and sugary beverages, and elevated rates of chronic and life-threatening diseases such as Type 2 diabetes, obesity, and heart disease. In collaboration with local and state partners, the Endowment helps to raise awareness about the harmful impacts of sugar sweetened

beverages to children's health; to make fresh, free potable water available to Californians in their schools and communities; and to elevate the voices of young people in efforts to improve their health.

6. The California Medical Association (CMA) is a not-for-profit, incorporated professional association for physicians with more than 42,000 members. CMA physician members practice medicine in all specialties and modes of practice throughout California. For more than 150 years, CMA has promoted the science and art of medicine, the care and well-being of patients, the protection of public health, and the betterment of the medical profession. CMA policy supports the adoption of sugar-sweetened beverage regulations that require warning labels on product advertising.

7. The California Pan-Ethnic Health Network (CPEHN) is a non-profit organization that promotes health equity by advocating for public policies and sufficient resources to address the health needs of communities of color. For over 20 years, CPEHN has played a strategic role in facilitating cross-cultural dialogues and collaborations. CPEHN is committed to addressing and solving the obesity and diabetes epidemics through research, education, and community outreach. In 2014, CPEHN published *Not So Sweet: Confronting the Health Crisis from Sugar-Sweetened Beverages in California*, which examines how the consumption of sugar-sweetened beverage impacts in California's communities of color and how

an excise tax on these beverages could improve health outcomes. CPEHN's Having Our Say (HOS) coalition has advocated for legislation to label and tax sugar-sweetened beverages. CPEHN also supported legislation that would impose a health fee on sugar-sweetened beverages and legislation that would have required health warnings on sugar-sweetened beverages. For the past several years, CPEHN has sponsored ENACT Day, a day where community leaders, youth, and advocates come together in Sacramento to promote policies that improve access to healthy food and opportunities for physical activity.

8. ChangeLab Solutions is a national nonprofit organization that creates innovative laws and policies to ensure everyday health for all, whether that's providing access to affordable, healthy food and beverages, creating safe opportunities for physical activity, or ensuring the freedom to enjoy smokefree air and clean water. Our solutions address all aspects of a just, vital and thriving community, such as food, housing, child care, schools, transportation, public safety, jobs, and the environment. ChangeLab Solutions creates and helps implement legal and policy solutions designed to increase access to nutritious food while reducing consumption of unhealthy foods, including sugar-sweetened beverages and other foods that include large amounts of added sugars.

9. Community Health Partnership's mission is to advocate for affordable and accessible health services for our diverse and multicultural communities

regardless of socioeconomic, ethnic, religious or cultural background, and to support our member organizations in achieving these goals. Community Health Partnership supports the San Francisco Soda Warning Ordinance as it brings awareness to the detrimental impact that beverages with high concentrations of sugar, such as soda, have on the health of our communities.

10. The CrossFit Foundation is a 501(c)(3) public charity focused on improving health & fitness through education, research, philanthropy, and advocacy. The CrossFit Foundation is committed to the practice of non-medical healthcare and healthy lifestyle choices in response to the global epidemic of chronic disease, based on the scientific evidence that diet and exercise are the greatest contributors to the health or illness of individuals and communities. The CrossFit Foundation supports legislation in the interest of public health in California and beyond, resists barriers to health and wellness, and provides education and information to the CrossFit community and the public at large on critical public health issues. The CrossFit Foundation supports legislation that provides consumers with the necessary information to make informed choices with regard to sugar-sweetened beverage consumption.

11. The Diabetes Coalition of California (DCC) is an independent, volunteer organization consisting of individuals and agencies dedicated to the prevention, recognition, and reduction of the adverse personal and public impact of

diabetes in the state's diverse communities. The DCC is comprised of representatives from the general public, local health departments, universities, companies, and a variety of community-based, voluntary, health and professional organizations. The specific purpose of this organization is to prevent diabetes and its complications in California's diverse communities. The DCC supports evidence-based methods to prevent and manage diabetes, including support of healthy lifestyles and the consumption of nutritious foods and the reduction of high calorie foods and beverages, including those with excessive amounts of sugar.

12. Healthy Food America is a national nonprofit that works to prevent obesity, diabetes and other chronic diseases by promoting healthy eating. We aim to reduce exposure to and consumption of unhealthy foods while promoting the increased availability and consumption of healthy, unprocessed foods. Healthy Food America works to reduce the unacceptable prevalence of added sugars in the American diet, including those found in sugary drinks, by promoting policy and changing industry practice.

13. Latino Coalition for a Healthy California (LCHC) is a non-profit organization founded in 1992 by health care providers, consumers, and advocates to improve the health of Latinos in California by focusing on policy development, enhanced information, and community education and involvement in order to improve health outcomes. LCHC supports policies that increase access to healthy

foods and reduce the prevalence of unhealthy foods in Latino communities. As a leading voice for the growing Latino population in the state, LCHC supports the City and County of San Francisco's ordinance requiring advertisements for sugar-sweetened beverages to include a warning regarding the adverse health effects of sugary drinks.

14. The National Association of Chronic Disease Directors (NACDD) is a non-profit public health organization committed to serving the chronic disease directors of each state and U.S. jurisdiction. Founded in 1988, NACDD connects more than 6,000 chronic disease practitioners to advocate for preventive policies and programs, encourage knowledge sharing, and develop partnerships for health promotion. NACDD agrees with the position taken by the World Health Organization, American Heart Association, and other leading medical groups, and endorses limiting sugar intake, including sugar-sweetened beverages.

15. The National Association for County and City Health Officials (NACCHO) is the voice of the 2,800 local health departments across the country. NACCHO helps local health departments develop policies and create environments to ensure that everyone, no matter where they live, has access to healthy affordable foods and beverages.

16. The National Association of Local Boards of Health (NALBOH) informs, guides, and is the national voice for local boards of health. Uniquely

positioned to deliver technical expertise in governance, leadership and board development, NALBOH is committed to strengthen good governance where public health begins – at the local level. For over 20 years, NALBOH has been engaged in establishing this significant voice for local boards of health on matters of national public health policy. In line with its commitment to public health, NALBOH supports healthy food and beverage policies, including the reduction of overconsumption of sugar-sweetened beverages.

17. The Network of Ethnic Physician Organizations (NEPO) is a coalition of more than 50 ethnic physician organizations in California. NEPO and its physicians work to reduce health disparities, improve access to health care, and advocate for public health issues that affect their communities.

18. NICOS Chinese Health Coalition is a public-private-community partnership of more than 30 health and human service organizations and concerned individuals. The mission of NICOS is to enhance the health and well-being of San Francisco’s Chinese community. Since 1985, NICOS has been engaged in advocacy, research, training, coalition-building and program implementation for the benefit of this population and the organizations that serve it. NICOS strongly supports policy efforts that warn and educate families about the connections between sugary drinks and type 2 diabetes and tooth decay, two pressing public health concerns in our community. Asian Americans are almost twice as likely to

develop diabetes as the general US population, and of those who develop the disease, more than 95% are diagnosed with type 2 diabetes. In San Francisco, Asian American children entering Kindergarten have the highest rate of dental caries and highest rate of untreated dental caries.

19. Prevention Institute is a national nonprofit dedicated to advancing community health and well-being by building momentum for effective primary prevention and health equity. Prevention Institute brings cutting-edge research, practice, and analysis to today's pressing health and safety concerns. Included among its focus areas, Prevention Institute works to advance strategies and policies that increase access to healthful food and limit the impact of harmful marketing of unhealthy food, including sugar-sweetened beverages.

20. Public Health Advocates is an independent, nonpartisan, nonprofit organization that believes that neighborhoods and schools should and can be places where physical, social, and economic conditions help make health a reality for all people. Since our inception in 1999 as the California Center for Public Health Advocacy, Public Health Advocates has been at the forefront of solving the obesity and diabetes epidemics by advocating for ground-breaking programs and policies that build healthier communities. Through simultaneous state and local advocacy, Public Health Advocates has led successful campaigns to remove sugary drinks and unhealthy food from public schools, requiring chain restaurants to provide

calorie information on their menus, and establishing California's Human Right to Water Law. Public Health Advocates also sponsored legislation in 2014 and 2015 that would have required health warnings on sugary drinks in California.

21. The Public Health Institute (PHI) is a nonprofit organization working across the globe to promote health, well-being and quality of life for all people. PHI programs, including Cultiva La Salud, Project LEAN and Roots of Change, work to ensure that all Californians have access to healthier, affordable foods and beverages, and to reduce consumption of unhealthy foods and beverages. The knowledge and experience of our programs and work in California and overseas has given us a deep understanding of the devastation caused by the obesity and diabetes epidemic that is wreaking havoc on the public's health and healthcare costs and the incontrovertible link to consumption of sugar-sweetened beverages. Furthermore, PHI's Alcohol Research Group pioneered research on the effectiveness of alcohol beverage warning labels, which like tobacco warnings have helped to raise awareness and inform consumers of product-related risks.

22. The Public Health Law Center uses the law to improve America's health. A public interest, nonprofit affiliate of the Mitchell Hamline School of Law in Saint Paul, Minnesota, the Center is home to the nation's largest team of attorneys and law students helping community leaders reduce tobacco use, improve the nation's diet, and encourage physical activity. The Center has prepared

publications on policy options for regulating sugar drinks, worked to remove sugar drinks from hospitals, provided technical assistance and training to communities considering taxation of sugar drinks, and studied the ineffectiveness of self-regulation of food and beverage advertising. The Center has filed more than forty briefs as amicus curiae in the highest courts of the land, including ten briefs addressing the regulation of commercial speech harmful to public health.

23. San Francisco Bay Area Physicians for Social Responsibility (SF Bay Area PSR), representing over 2,500 SF Bay Area health professionals and supporters, is the local chapter of Physicians for Social Responsibility (PSR), a non-profit advocacy and educational organization that, guided by the expertise of medicine and public health, works to protect human life from the gravest threats to health and survival. A key part of our ongoing programmatic work includes promoting ecologically-sound health care by working with healthcare professionals and institutions to promote “green” energy choices, safer chemicals, and healthy food produced in an environmentally and socially responsible way. As part of our “healthy food” work, we continue to support the implementation of public policy solutions created to increase access to nutritious food while reducing consumption of unhealthy foods, including beverages that include excessive amounts of sugar, and which have been strongly implicated in the development of childhood

diabetes, obesity and tooth decay, with associated serious and negative lifelong health impacts.

24. The San Francisco Community Clinic Consortium develops innovative programs and advocates for policies that increase access to quality community-based primary health care. We work to ensure that people of all income levels have access to health care that is comprehensive, coordinated, efficient and culturally and linguistically appropriate. Focused on patient needs, the SFCCC provides primary care services to more than 10% of San Francisco's population. We work with providers citywide to coordinate primary care with specialists, hospitals, and other services. We serve overlooked populations such as homeless San Franciscans, immigrant communities, and seniors. Many of our partner clinics have a significant number of patients with diabetes and see first hand the impact on low income communities of the consumption of sugar sweetened beverages. We support evidenced based practices to reduce sugary beverage consumption.

25. The San Francisco Medical Society (SFMS) is the professional association for physicians in San Francisco, and has been active since 1868, working for the betterment of health for everyone in our city. With more than 1,800 members—including practicing physicians, residents, and medical students—SFMS champions quality health care and innovation for our patients and

community and serves the professional needs of all San Francisco physicians. We have spearheaded many community health issues in San Francisco including the co-sponsorship of Hep B Free, anti-tobacco legislation and education, formation and continuation of the Healthy San Francisco program, advocacy on reproductive and end-of-life issues, in addition to advocacy for the California Soda Warning Label Bill (SB 203) and the 2014 San Francisco soda tax initiative. The local ordinance for warnings on sugary drink ads is thus very much in support of our goals of a healthier San Francisco.

26. The Southern California Public Health Association (SCPHA), an affiliate of the American Public Health Association, is nonprofit organization that is comprised of community members, public health professionals, and organizations dedicated to improving public health in California through leadership, collaboration, education, and advocating with organizations and individuals who share our common vision. SCPHA provides public health leadership to foster, expand, improve, and recognize efforts, and share best practices to better the health of all people in Southern California through health promotion, disease and injury prevention & reduction, and the promotion of public policy efforts. Those efforts include the proposed SSB Warning Ordinance that may help to curtail and reduce consumption of sugar-sweetened beverages, which contribute to a number of adverse health effects.

27. Strategic Alliance is a network of organizations and individuals dedicated to advancing healthier food and physical activity environments across California. The Alliance focuses on supporting government policies and organizational practices that improve Californians' opportunities to engage in healthy eating and active living. Since 2001, Strategic Alliance has been at the forefront of developing strategies, tools, and policies that have helped make California a leader in promoting health, equity, and well-being. Strategic Alliance has consistently prioritized policy approaches that help to reduce consumption of unhealthy foods, including sugar-sweetened beverages.

CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitations of Fed. R. App. P. 29(d) and 32(a)(7)(B). The brief contains 6,988 words, according to Microsoft Word, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6). The brief has been prepared in a proportionally spaced 14-point typeface including serifs. The typeface is Times New Roman.

I certify that the information on this form is true and correct to the best of my knowledge and belief formed after a reasonable inquiry.

DATED: September 21, 2016

/s/ Seth E. Mermin
Seth E. Mermin

CERTIFICATE OF SERVICE

I hereby certify that on September 21, 2016, I caused to be filed electronically via the Court's CM/ECF System, and thereby served on all counsel, a true and correct copy of this Brief of *Amici Curiae* American Heart Association et al.

DATED: September 21, 2016

/s/ Vanessa Buffington
Vanessa Buffington