



University of California  
San Francisco

# Sugar and Oral Health Messaging

*Implications for Policy, Systems, and  
Environmental Change*

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**“Increasing fiber and limiting saturated fats and salt will help control blood glucose, blood pressure, and cholesterol.”**



May 2007



Drinks	Serving	Calories	Total fat (gm)	Saturated fat (gm)	Trans fat (gm)	Cholesterol (mg)	Sodium (mg)	Carbs (gm)
<b>Milk</b>								
Whole	1 cup	149	8	5	0	24	105	12
2%	1 cup	122	5	3	0	20	100	12
1%	1 cup	102	2	2	0	12	107	12
Skim/Non-Fat	1 cup	83	0	0	0	5	103	12
<b>Hot Drinks</b>								
Coffee	1 cup	5	0	0	0	0	5	0
Coffee, decaffeinated	1 cup	4	0	0	0	0	0	1
Hot Chocolate (made w/2% milk)	1 cup	200	6	4	0	20	110	30
Hot Tea	1 cup	2	0	0	0	0	7	1

<b>Fountain Drinks</b>								
Lipton Brisk (sweetened)	16 fl. oz.	92	0	0	0	0	40	44
Lipton Brisk (unsweetened)	16 fl. oz.	0	0	0	0	0	40	0
Coca-Cola Classic	16 fl. oz.	131	0	0	0	0	8	54
Diet Caffeine Free Pepsi	16 fl. oz.	0	0	0	0	0	40	0
Diet Coke	16 fl. oz.	1	0	0	0	0	13	0
Diet Dr. Pepper	16 fl. oz.	0	0	0	0	0	48	0
Diet Mountain Dew	16 fl. oz.	0	0	0	0	0	40	0
Diet Pepsi	16 fl. oz.	0	0	0	0	0	40	0
Dr. Pepper	16 fl. oz.	132	0	0	0	0	48	52
Fanta Orange	16 fl. oz.	148	0	0	0	0	11	70
Hi-C Flashin' Fruit Punch	16 fl. oz.	137	0	0	0	0	12	56
Hi-C Orange Lavaburst	16 fl. oz.	147	0	0	0	0	0	60
Lipton Brisk (sweetened)	16 fl. oz.	92	0	0	0	0	40	44
Lipton Brisk (unsweetened)	16 fl. oz.	0	0	0	0	0	40	0
Lipton Brisk Lemonade	16 fl. oz.	132	0	0	0	0	119	44
Lipton Brisk Raspberry	16 fl. oz.	106	0	0	0	0	0	46
Mello Yello	16 fl. oz.	140	0	0	0	0	11	64
Minute Maid Lemonade	16 fl. oz.	128	0	0	0	0	54	56

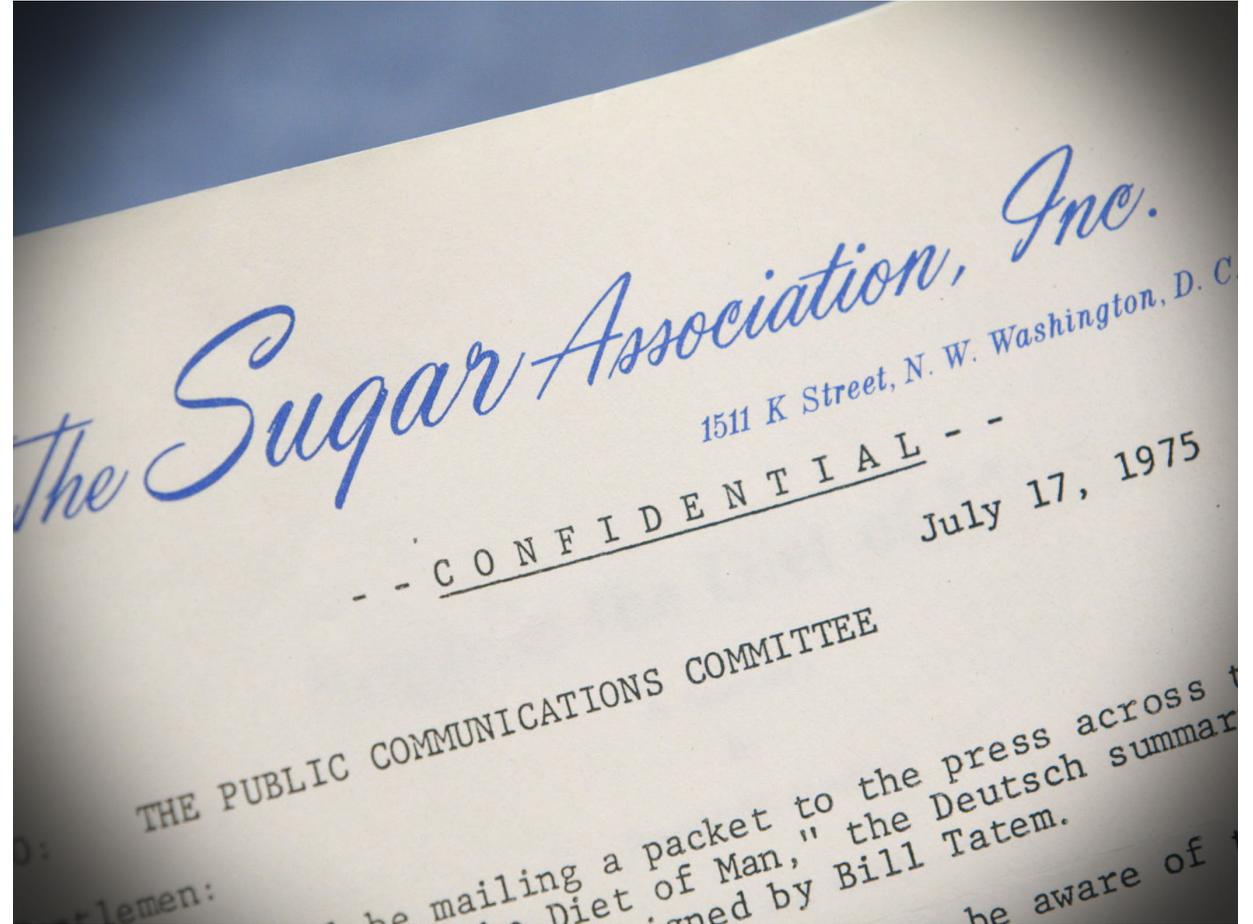
Lipton Brisk (sweetened)	16 fl. oz.	92	0	0	0	0	40	44
Lipton Brisk (unsweetened)	16 fl. oz.	0	0	0	0	0	40	0

## Natural Sugar has been the Subject of Scientific Scrutiny

- 1,000- Number of scientific papers dispelling sugar of links to diabetes, hypertension, behavior problems, and obesity



- In 1986, the FDA Sugars Task Force, in a review of 1,000 scientific papers, reported scientific evidence clears sugars of links with diseases including diabetes, hypertension, behavior and obesity.
- The 1989 National Academy of Sciences Report on Diet and Health stated that for those with an adequate diet, sugar consumption has not been established as a risk factor for any chronic disease.
- In 2002, the National Academy of Sciences concluded that there was insufficient evidence to set an upper level for sugar intake. The study found "no clear and consistent association between increased intakes of added sugars and [body mass index]."
- As an all-natural carbohydrate, sugar contains only 4 calories in every gram, the same as protein.



An archive of documents from the food industry related to their manufacturing, operations, regulatory activities, and scientific research, hosted by the UCSF Library.

**SEARCH** ADVANCED SEARCH

- Hide Restricted Documents     Hide Folders     Hide Possible Duplicates

[What can I search for?](#)    [How do I search?](#)

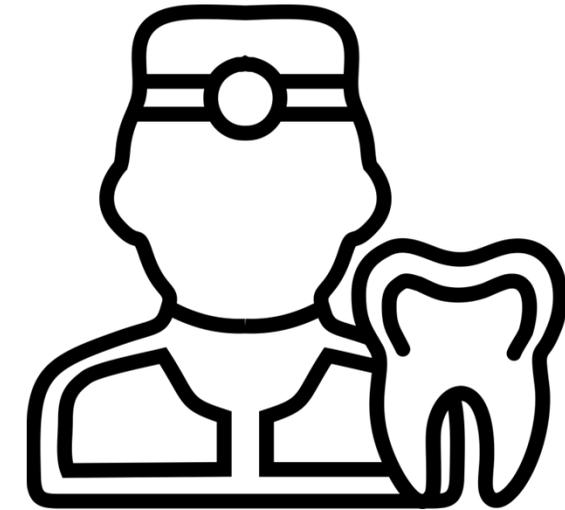
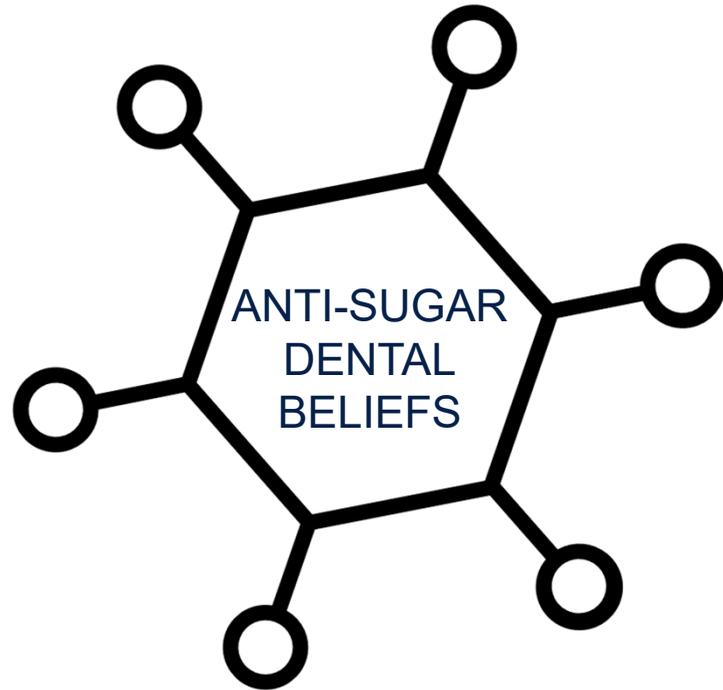
**Search Options** ▾

Document Date Ranges *(no dates selected)* >

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| <input checked="" type="checkbox"/> BC Sugar Company Records               | <input checked="" type="checkbox"/> FTC Children's Advertising             | <input checked="" type="checkbox"/> Paul Saltman Papers                    |
| <input checked="" type="checkbox"/> Braga Brothers                         | <input checked="" type="checkbox"/> Franklin Bing Papers                   | <input checked="" type="checkbox"/> Robert Shank Papers                    |
| <input checked="" type="checkbox"/> Buhl Papers                            | <input checked="" type="checkbox"/> Fredrick Stare Papers                  | <input checked="" type="checkbox"/> Roger Adams Papers                     |
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| <input checked="" type="checkbox"/> DC Leaks Coca Cola Emails              | <input checked="" type="checkbox"/> Oregon State University Sugar Resea... | <input checked="" type="checkbox"/> William Darby Papers                   |

# Sugar Industry's View of Dentists (1940s)



- Americans eat too much sugar
- Overconsumption of sugar causes caries
- Sugar causes teeth to decay more than any other foods

- infectious idea[s] in the dentists' mind
- To what extent have dentists' minds been poisoned

# The War on Anti-Sugar Dental Beliefs

## Individuals

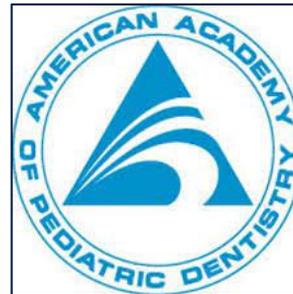


Dentists



Academics

## Organizations



Professional Org.



Research Org.

## Media



News



Scientific Literature

## Policy



Policymakers

# Sugar Industry Position on Sugar and Dental Caries - 1950

The ultimate aim of the Foundation in dental research has been to ***discover effective means of controlling tooth decay by methods other than restricting carbohydrate intake.***

-Sugar Research Foundation 1950 Annual Report

## Fund Research to Divert Attention from Limiting Sugar Intake: 1967-1970

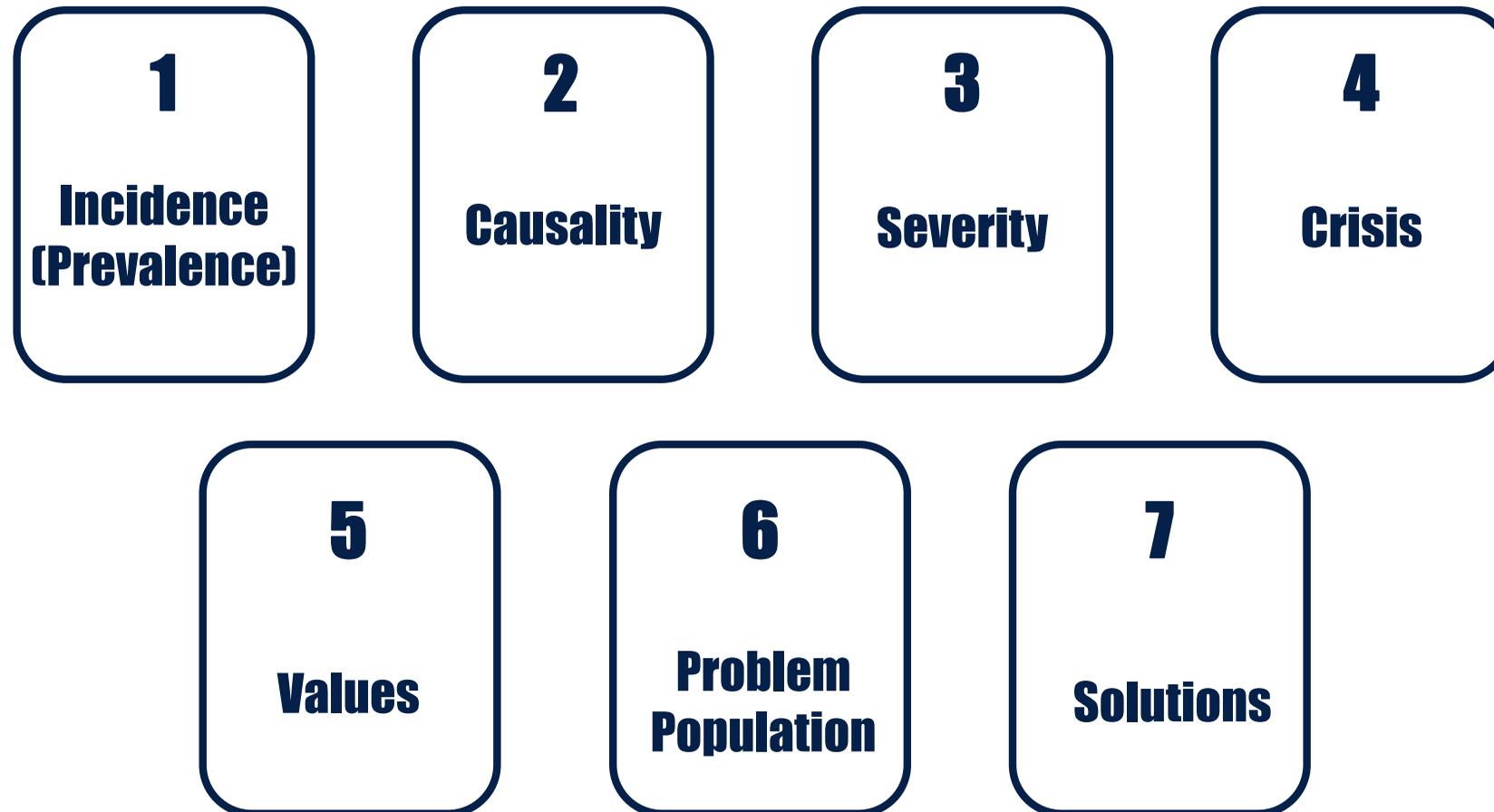
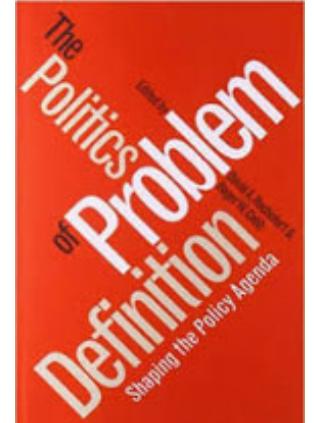
- Collaborated with Chocolate and Confectionary Industries
- Spent \$85,000 in today's dollars, 4% of overall project budget
- Dextranase enzymes
- Dental Caries Vaccine

“Dental caries prevention must be understood not just as a health issue, but as a **contested political issue** influenced by powerful vested interests.”

Kearns & Watt  
*Community Dental Health, 2019*



# The Politics of Problem Definition



(Rocheffort and Cobb, 1994; Cobb and Coughlin, 1998)

# The Contestants

EXIT

EXIT

**EXPANDERS**



**CONTAINERS**

# The Expanders

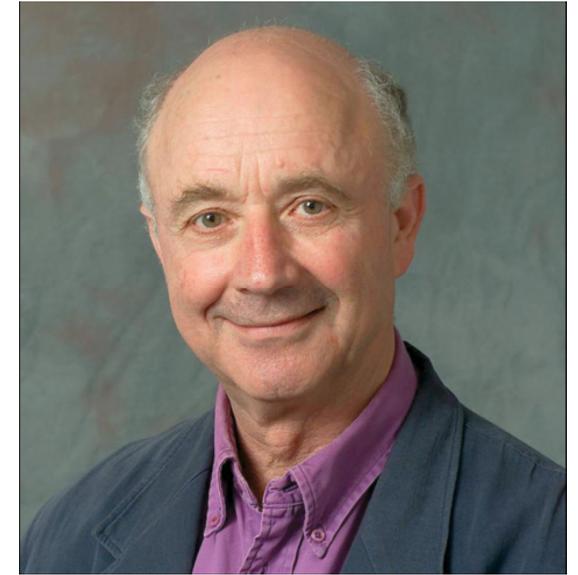
*Public Health Nutrition: 4(2B), 569–591*

DOI: 10.1079/PHN2001142

## Dietary effects on dental diseases

Aubrey Sheiham\*

Department of Epidemiology and Public Health, University College London, 1-19 Torrington Place, London WC1E 6BT, UK

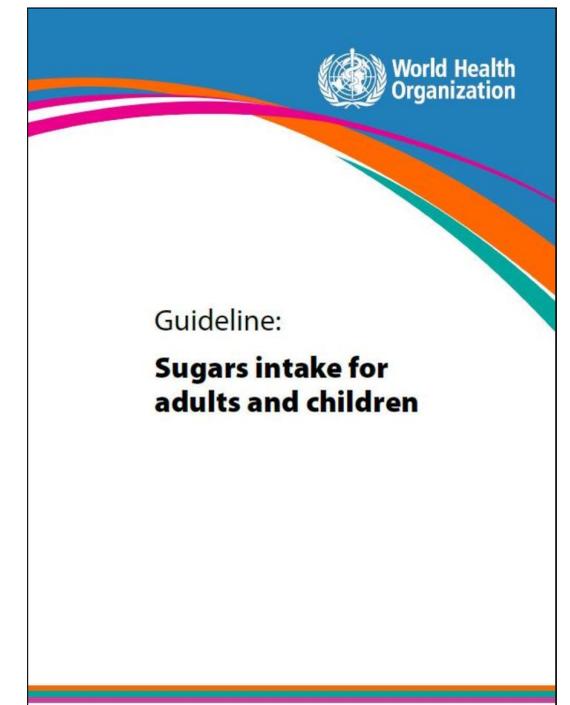


### *Critical Reviews in Oral Biology & Medicine*

## Diet and Dental Caries: The Pivotal Role of Free Sugars Reemphasized

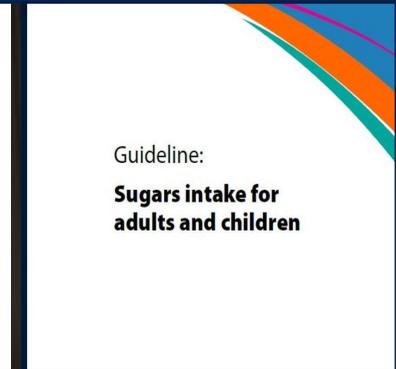
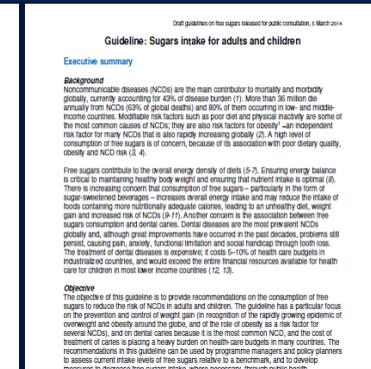
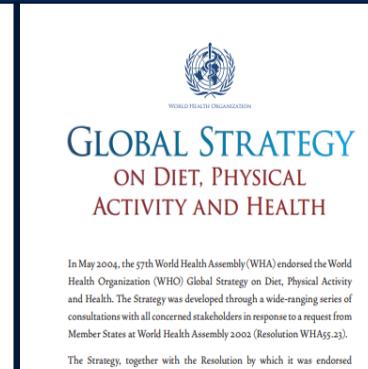
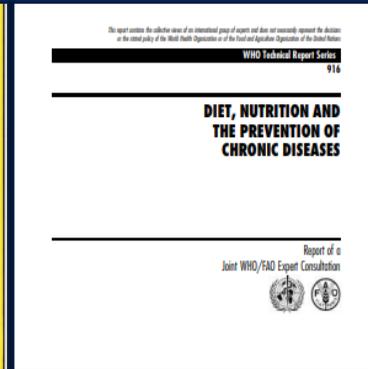
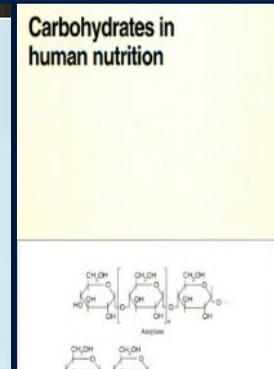
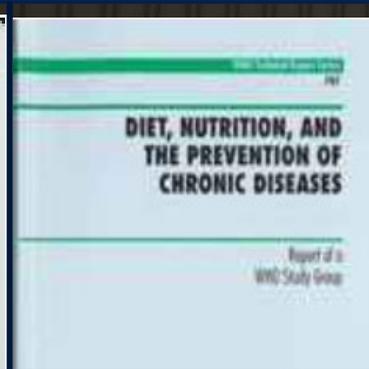
A. Sheiham<sup>1</sup> and W.P.T. James<sup>2</sup>

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2015, Vol. 94(10) 1341–1347  
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for Dental Research 2015  
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DOI: 10.1177/0022034515590377  
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# The Containers





**1979**  
Cariogenicity  
of sugars  
acknowledged

**1990**  
Sugars  
< 10% total  
energy

**1997**  
Fluoridation  
Oral hygiene  
Sugar

**2003**  
Sugars  
<10% total  
energy

**2004**  
Limit intake  
of free  
sugars

**2014**  
Sugars  
<10% total  
energy

**2015**  
Sugars  
<10% total  
energy

**EXPANDERS**

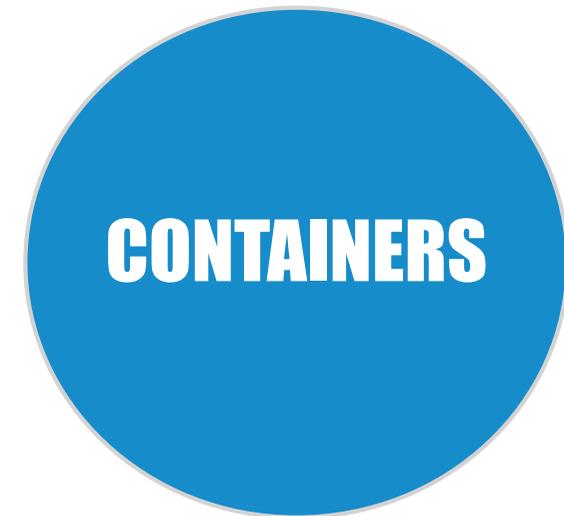
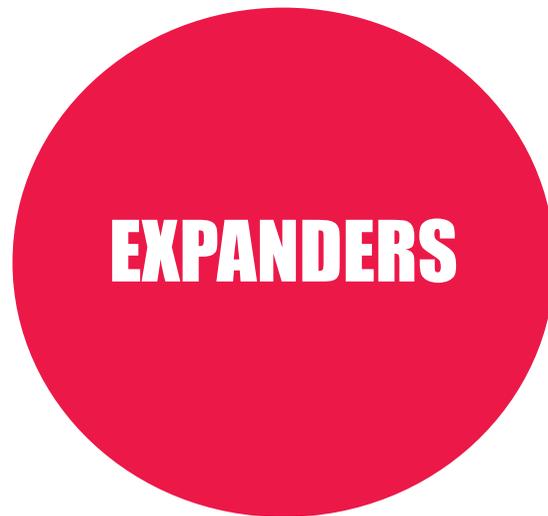


**CONTAINERS**

# How many people affected by caries?

“The conquest of caries has been greatly exaggerated”

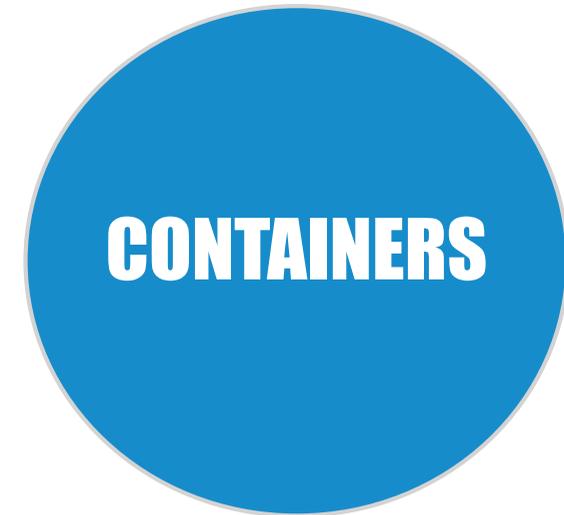
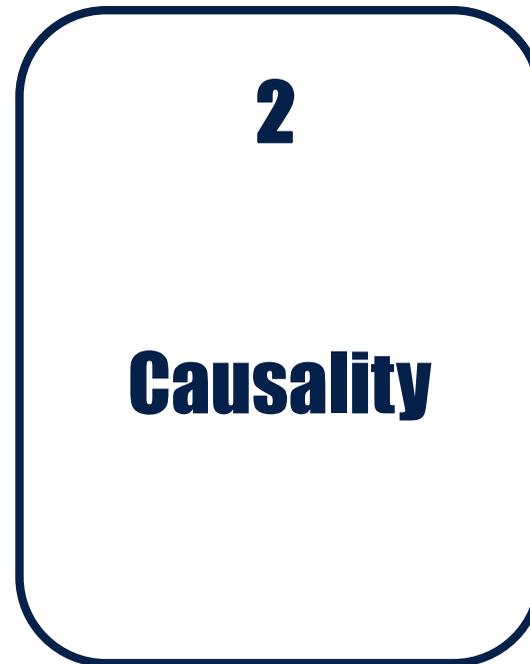
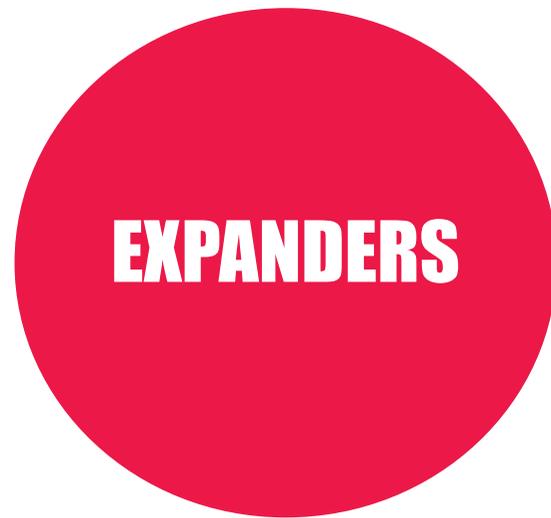
“Enormous improvements” in dental caries rates



# What causes dental caries?

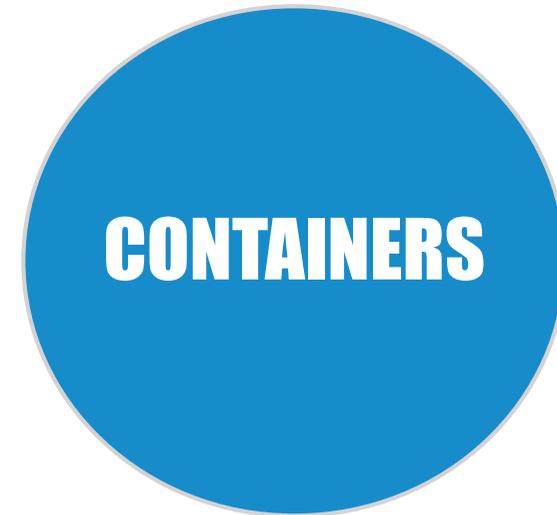
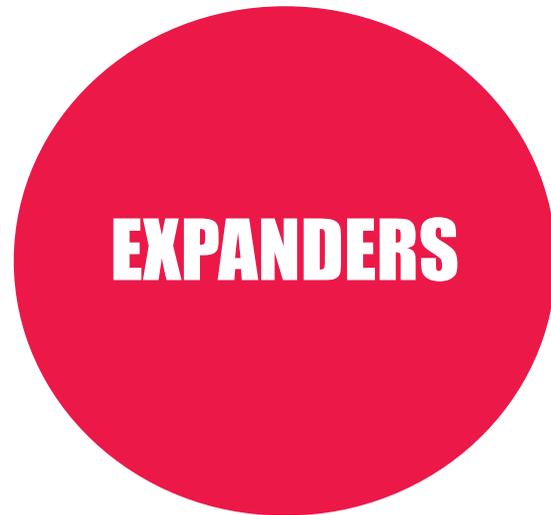
Diet-mediated non-communicable chronic disease

Caries is a multi-factorial infectious disease



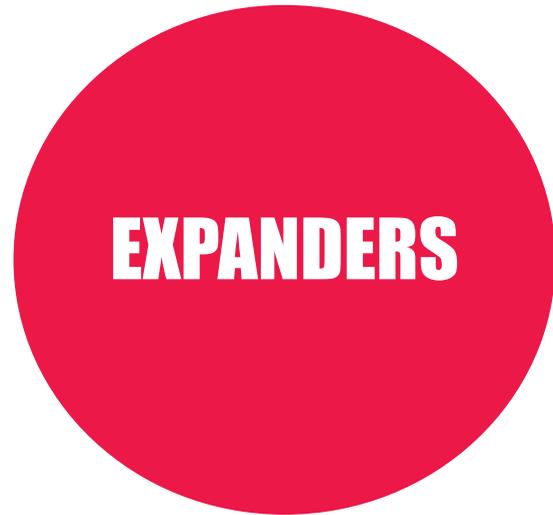
# Impact on individuals? Getting worse?

Most prevalent  
condition globally

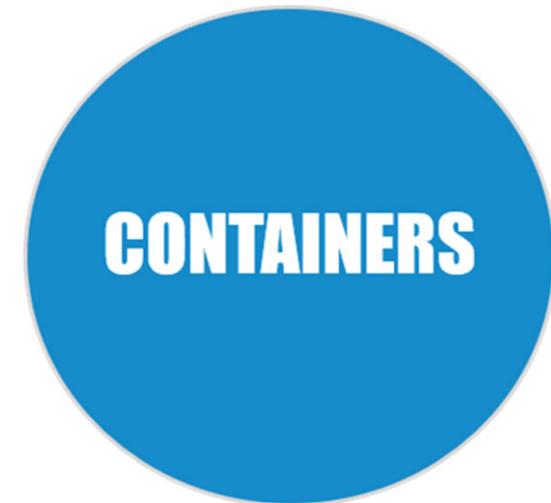


# Urgency of dental caries?

Cost crisis

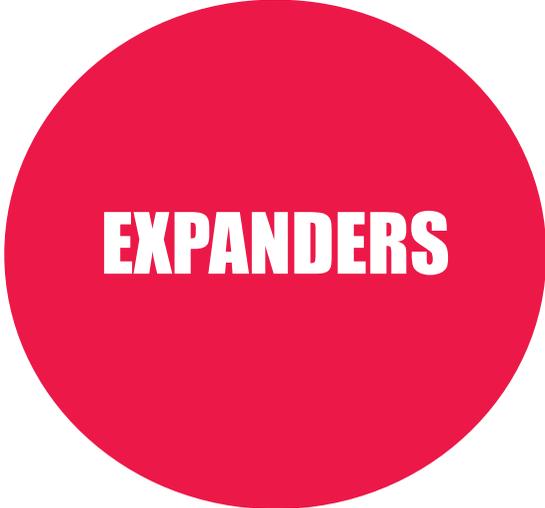


Cost crisis

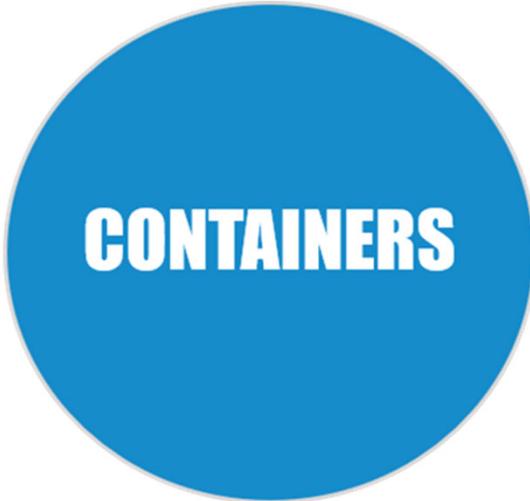


# Link position to strong emotional attachment

Quality of Life  
Human Rights



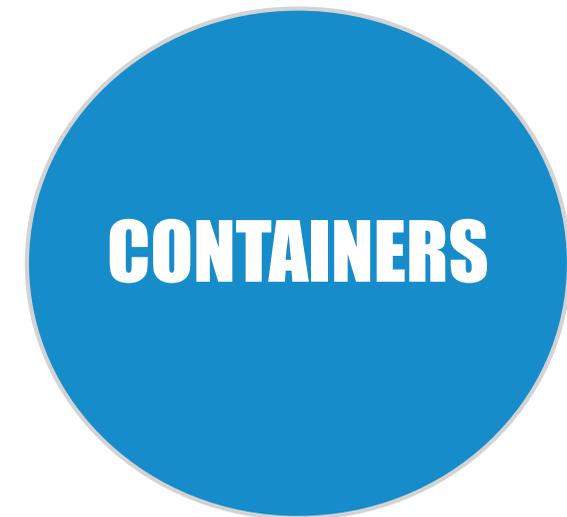
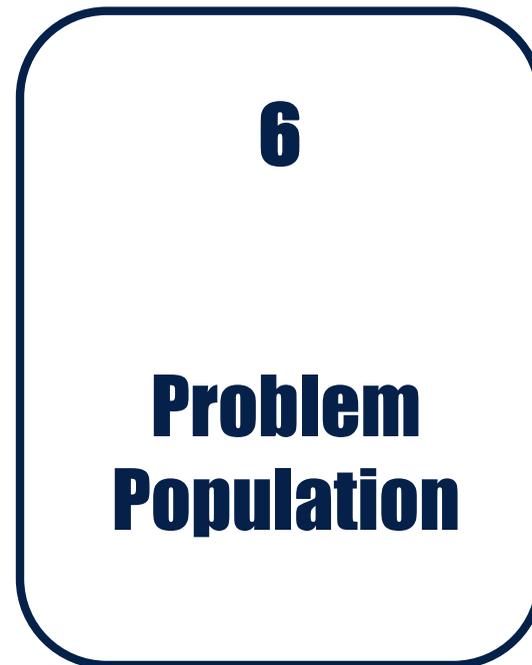
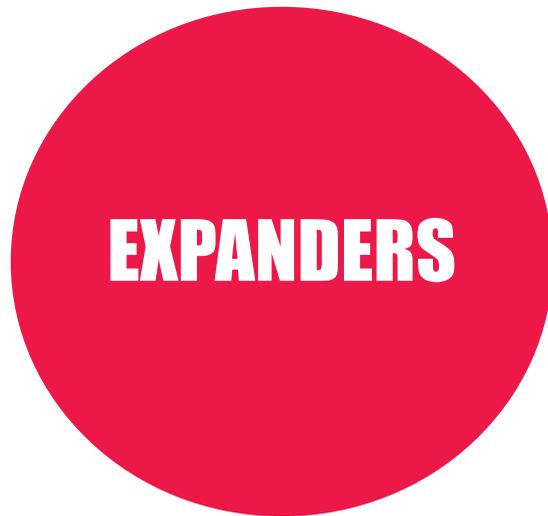
Personal  
Responsibility



# Characteristics of the Problem Population

Most caries occurs  
in the majority

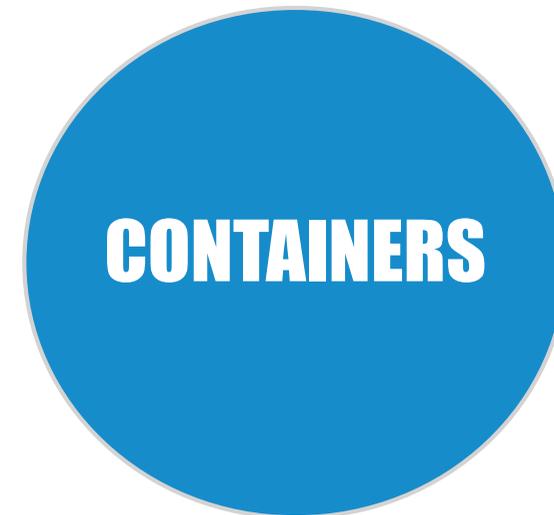
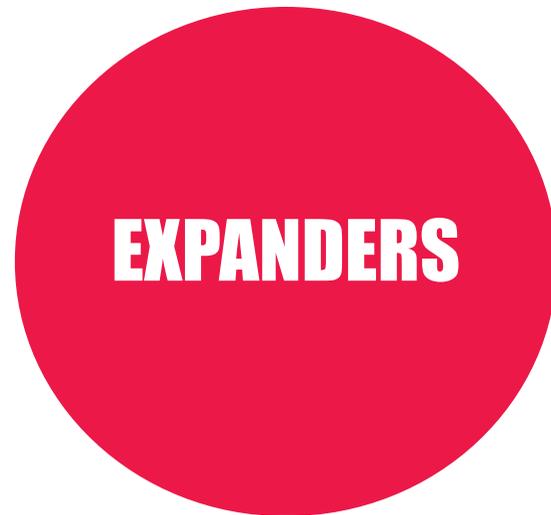
Caries is decreasing, limited to a  
small portion of the population



# Policy Action on Sugar

Necessary, effective, cost-savings

Expensive, ineffective



# Conclusions

- WSRO and ILSI have sought to contain the dental caries issue over the last 40 years
- Debating statistics, sponsoring conflicting studies, influencing committees, tying their position to crucial societal values
- Delayed policy action on sugar

# Resolving Dental Caries – Implications

- Containers will continue to advance their arguments as countries decide whether to adopt WHO sugars guideline
- WSRO/ILSI - global network, funded by TNCs with significant resources
- Public health advocates must recognize and understand problem definition claims made by powerful vested interests and be prepared to counter them

# Are we using container language?



“The American Dental Association has similarly cautioned against the “growing popularity of singling-out sugar-sweetened beverages” because “the evidence is not yet sufficient to single out any one food or beverage product as a key driver of dental caries.”

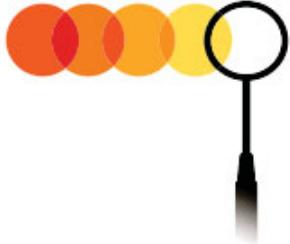
*American Dental Association on the Scientific Advisory Report of the 2015 Dietary Guidelines Advisory Committee at 6 (May 8, 2015) --- As cited by U.S. Court of Appeals for the Ninth Circuit*



# Sugary Beverage Taxes in California

SODA TAXES

CDA JOURNAL, VOL 44, N°10



## Advocating for Soda Taxes: How Oral Health Professionals Fit In

Alisha Somji, MPH; Laura Nixon, MPH; Leeza Arbatman, BA; Pamela Mejia, MS, MPH;  
Alysha Aziz, RN; Karen Sokal-Gutierrez, MD, MPH; and Lori Dorfman, DrPH, MPH

**ABSTRACT** Our recent analysis of how soda tax debates appear in the news revealed that oral health professionals seldom appear. By elevating their expert voices, oral health practitioners can contribute new and salient arguments for soda taxes to the public discourse and help advance public policy that improves oral health outcomes. We propose media advocacy strategies that oral health professionals can use to increase their visibility in the news to make the case for soda taxes.

- **Existing Taxes Requiring Renewal:** Berkeley, Oakland, San Francisco – Sunset Provisions
- **New Proposals:** Santa Cruz (committed), Redwood City (proposed) – Charter Cities

# A Call To Action – Prior to November 5, 2024

- 1. Policy Development (now - early spring):** Helping to strengthen policy language around health impacts and defining impacted communities.
- 2. Legislative Campaign (Spring - early summer):** sharing talking points in meetings with City Councilmembers and other decision makers, providing public comment at City Council meetings, writing/signing a letter of support from their profession's point of view on the legislation, providing quotes for op-eds.
- 3. Ballot Campaign: (Summer - fall):** Provide talking points and quotes for campaign collaterals like mailers, ads, billboards, op-eds, and videos. Volunteering to go door-to-door in voter outreach or other canvassing activities.

# A Call To Action – Prior to November 5, 2024

- Routinely encourage patients to vote in favor of the tax in their community
- Reach out to and join the community steering committee or at least take a role in the campaign leading up to the election.
  - Donate to the campaign
  - Take house signs home for their use and a few neighbors’.
  - Take a few hours to go door to door *wearing a white coat* to get out the vote
  - Speak up in community SSB campaign meetings to give folks an informal understanding of how much SSB harm they see among their patients, particularly kids