



Evaluation of San Francisco's Social Marketing Campaign "Pouring on the Pounds"



Conducted by Samuels & Associates for the
California Obesity Prevention Program
2010



BACKGROUND

In recent years there has been a tremendous increase in the number of calories consumed in the form of sugar-sweetened beverages including sodas, fruit drinks, sport drinks, energy drinks, and sugar-sweetened teas and coffee drinks. Moreover, numerous studies have demonstrated a link between consumption of sugar-sweetened beverages and weight gain. A 2009 study by the California Center for Public Health Advocacy and UCLA Center for Health Policy Research found that adults who drink one or more sodas or other sugar-sweetened beverages each day are 27% more likely to be overweight or obese. Drinking soda is also associated with an increased risk for type 2 diabetes. The same study found that, in San Francisco, 12% of adults and 37% of children between the ages of 2-17 report drinking at least one soda per day.¹

“Pouring on the Pounds” Campaign

In early 2010, two programs at the California Department of Public Health, California Project LEAN (Leaders Encouraging Activity and Nutrition) and the California Obesity Prevention Program, partnered with the San Francisco Department of Public Health (SFDPH) to implement and evaluate a media campaign called, “Pouring on the Pounds,” which was modeled after one component of a similar campaign in New York City. With the larger goal of obesity reduction and prevention, this campaign aimed to motivate San Francisco residents to eliminate or reduce consumption of soda and other sugar-sweetened beverages through advertisements on city buses. The campaign posted images (see above) of soda turning into fat as it was poured from a bottle with a caption that urged readers to drink healthy beverages such as water, low/non-fat milk, and other low/no calorie options instead of sugar-sweetened beverages.

To enable placement of this advertisement, Blu Line Media (a media buying agency) donated 3 free months of interior bus advertisement space to SFDPH that they purchased from the San Francisco Municipal Transit Agency. This agency typically picks a different health issue to promote each year and selected this campaign for 2010. Additional advertising space was purchased by SFDPH to place the same posters on the exterior of buses for 6 weeks. In total, 400 advertisements were displayed on the interior of buses from February 1 to April 25, 2010, and 100 were posted on the exteriors from February 1 to March 14, 2010. No specific coverage areas or subpopulations were targeted, and the advertisement was only displayed in English due to funding constraints. In terms of exposure, estimates are that the interior bus advertisements made 12,097,998 impressions and the exterior bus advertisements made 17,142,923 impressions during the official campaign period dates listed above. These figures reflect the number of potential times the advertisements were viewed, which could include the same people viewing it more than once.

¹ Babey SH, Jones M, Yu H, Goldstein H. *Bubbling Over: Soda Consumption and Its Link to Obesity in California*. UCLA Center for Health Policy Research and California Center for Public Health Advocacy, 2009.

METHODOLOGY

This evaluation, conducted by Samuels & Associates for the California Obesity Prevention Program, assessed San Franciscan's awareness and perceptions of the campaign, beverage consumption behaviors, related health opinions, and reactions to policy strategies to reduce consumption of sugar-sweetened beverages. Key findings as well as a series of recommendations are summarized in this brief report. The mixed-method design was guided by the following evaluation questions:

1. What are San Francisco residents' and leaders' opinions about sugar-sweetened beverages and their relationship with obesity and health?
2. What beverages do San Francisco residents typically consume?
3. What are San Francisco residents' and leaders' perceptions of the "Pouring on the Pounds" campaign?
4. To what extent do San Francisco residents and leaders support policies that aim to reduce consumption of sugar-sweetened beverages and promote intake of healthy alternatives?

To answer these questions, primary data were collected during the summer of 2010 from a convenience sample of San Francisco residents, local policymakers, SFDPH staff, and other community stakeholders using intercept surveys, focus groups, and key informant interviews. Original assessment tools for each of these methodologies were developed drawing from instruments that have been used in previous studies conducted by the evaluation team.

Procedures and analyses

This evaluation was conducted approximately three months after the campaign officially ended, although it should be noted that some city buses were still displaying the interior advertisements at the time of data collection. The data collection protocol, assessment instruments, participant consent forms and other supporting documents were approved for use with human subjects by Internal Review Consulting² prior to initiating any data collection. Informed consent from all study participants was obtained.

Qualitative data were entered into a spreadsheet with responses grouped together by question and analyzed for common themes across respondents. Quantitative data were analyzed using SPSS software. Key findings are reported by data collection method below.

² <http://www.irb-irc.com/>

INTERCEPT SURVEYS

Intercept surveys were conducted with adult residents about the campaign as well as their consumption and perceptions of soda and other sugar-sweetened beverages. Survey staff gave respondents examples to describe what was meant by sugar-sweetened beverages that were not soda. The brief survey was administered at transit stops to residents who ride city buses at least once/week (since they were considered most likely to have seen the ads). In total, 318 respondents were recruited from three different parts of San Francisco to obtain a diverse sample and screened for eligibility prior to administering the survey. Posters of the advertisement were shown to respondents as a trigger for responses. Most surveys were completed in English with the exception of 17 that were administered in Spanish to monolingual Spanish speaking respondents.

Findings

Seventy-nine percent of respondents reported riding city buses at least 5 times/week. On average, respondents said they drank regular soda (not diet) and/or other sugar-sweetened beverages once/week. Over one-third of respondents said they never drink these beverages, while another third drink them daily or several times/week. Figure 1 below breaks down the consumption habits of respondents. In general, 67% thought drinking these types of beverages contributes to obesity and related chronic illnesses “a lot,” while 20% saw “somewhat” of a relationship, and 5% believed that there was no contribution at all.

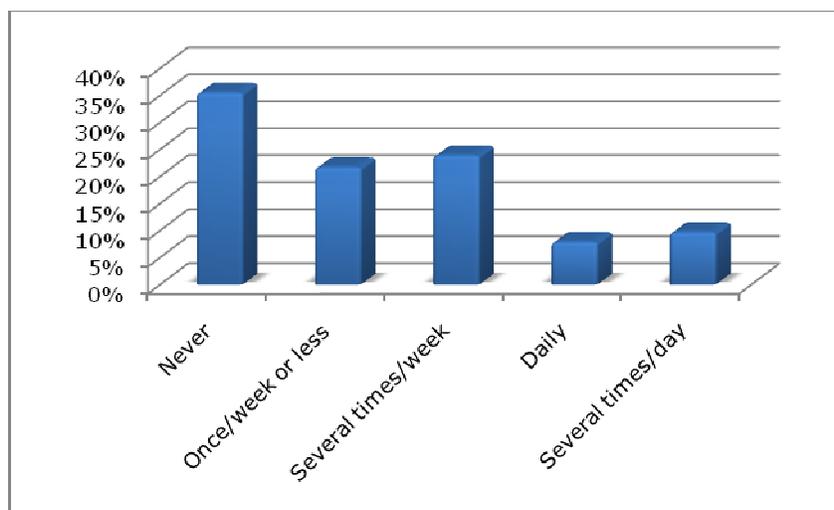


Figure 1: How often survey respondents (n=318) typically drink soda (regular, not diet) and other sugar-sweetened drinks.

Twenty-seven percent of those surveyed had seen the advertisement on city buses, but only 13% of this group felt that it motivated them to decrease their consumption of soda and/or other sugar-sweetened beverages. Most others did not think the campaign made any impact and/or said that they already knew about the consequences of drinking

these beverages or did not drink them in the first place. A few respondents said they told friends and family members about the campaign.

Bivariate analyses yielded the following results. Respondents who ride MUNI more often (i.e. at least 5 times/week) had not seen the advertisement in greater numbers than those who ride less often (i.e. less than 5 times/week). There were no differences between respondents who saw the advertisement and those who did not in terms of beverage consumption rates and beliefs about the relationship between beverages and obesity/health. Similarly, consumption rates were not associated with beliefs. These null findings may be attributed to the fact that only a small portion of our sample reported drinking sugar-sweetened beverages regularly, saw the ad, and did not think beverage consumption has a strong relationship with health.

FOCUS GROUPS

Focus groups were conducted to gather in-depth, qualitative data on beverage consumption habits, reactions to the campaign, and perceptions regarding policy strategies to address sugar-sweetened beverage consumption. Two groups were held with adult residents who ride city buses at least once a week (since they were considered most likely to have seen the ads). Participants were pre-screened for eligibility. Each focus group lasted for 1.5 hours and was audio-recorded and transcribed. Both groups were held in English at the San Francisco General Hospital (SFGH). This location was selected as a recruitment site because it is frequented by patients, visitors, and staff of various demographic groups and the objective was to recruit a sample that is representative of the diverse population of San Francisco. Participants were recruited through flyers that were posted around the hospital as well as an email announcement to SFGH staff. In appreciation of their participation and to help with travel expenses, a \$35 incentive was offered at the end of the sessions. Participants were also offered a healthy beverage and meal. Semi-structured questions were used to elicit in-depth responses and posters of the advertisement were shown to participants to gauge reactions. Specifically, the facilitated discussion focused on:

- Recognition/recall of the campaign
- Responses to the campaign
- Perceptions of sugar-sweetened beverages vs. healthy alternatives and their relationship to health
- Consumption of healthy and unhealthy beverages
- Support for policy strategies that aim to reduce consumption of sugar-sweetened beverages and promote healthy beverages

Findings

A total of 17 participants took part in the 2 groups, approximately half of which were SFGH staff. Participants ranged in age from 23-65 years old, with an average age of 44 across both groups. Over half of the sample reported riding city buses at least 5 times/week, 71% of participants were non-Caucasian, 82% were female, and 41% had

a household income that was less than \$25,000/year. Sixty-five percent had attended some college and/or held a Bachelor's level or graduate degree.

Beverage consumption. At the start of the session, participants were asked to describe their typical beverage consumption habits, which are displayed below (Figure 2). Many participants talked primarily about drinking water, juice and tea. The majority only reported rare or occasional consumption of soda and other sugar-sweetened beverages, which mostly consisted of sugar-sweetened coffee (e.g., Frappuccino) and tea drinks (e.g., Arizona's), sports drinks (e.g., Gatorade), and sugar-sweetened fruit drinks (e.g., Snapple). A number of participants discussed how they drank fewer sugar-sweetened beverages now as compared to earlier parts of their lives.

- "I try to stick with not drinking any soda because it's really bad."
- "I'll indulge in soda once a month but that's it."
- "I recently have been discovering [drinking soda] is a bad idea. Just the other day, I bought 4-5 bottles of water. I had been drinking 2-3 sodas a day before."
- "I drank a lot of soda in college. I cut it all out now."

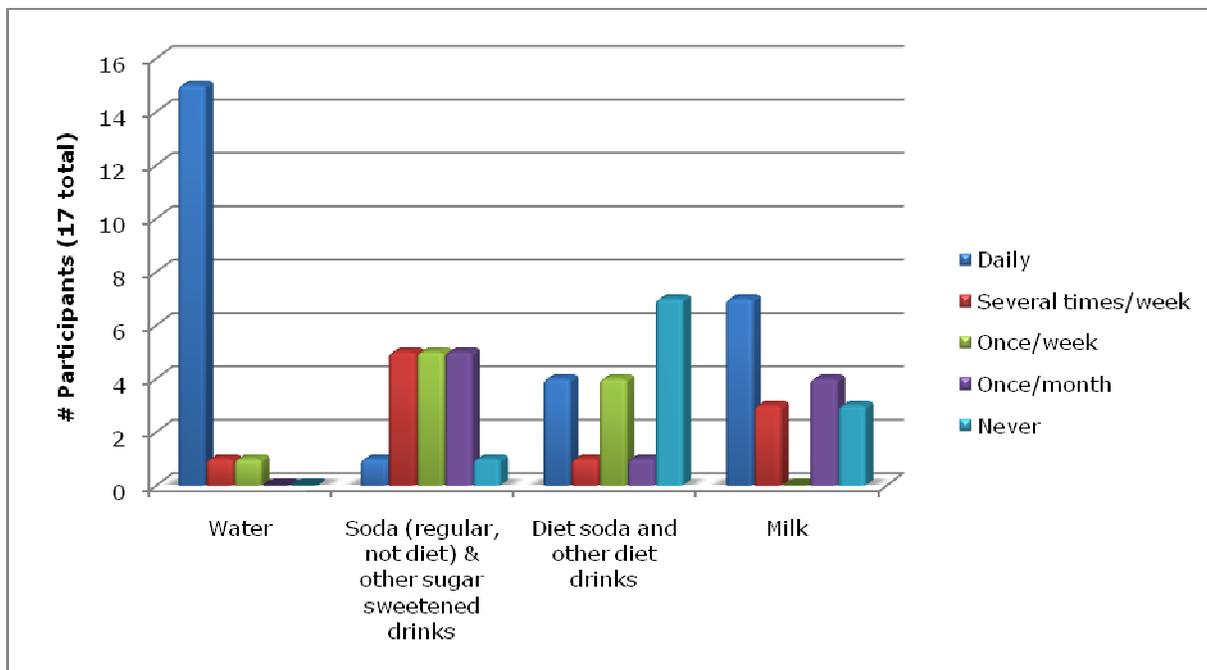


Figure 2: How often focus groups participants (n=17) drink common beverages.

The majority of participants believed that drinking soda and other sugar-sweetened beverages contributes to obesity and related chronic illnesses, and in some cases this belief led them to change their consumption habits.

- "I use to drink soda until I gained weight. I switched to diet and it's pretty good nowadays."

- “I saw a TV show about someone who consumed a lot of sugar and got really sick and had to amputate her feet. That really woke me up.”
- “When I was drinking soda, I was getting headaches, gaining weight...”
- “Just recently, it’s starting to bother me. I think I’m going to cut back on my soda and drink more water and see what kind of change that makes for me.”
- “Drinking the bad stuff in moderation is the key. Cutting it down and just going to buy healthier drinks will cut your chances of something happening to your health instead of ignoring it and not doing anything at all.”

Factors influencing beverage selections. When the focus groups were asked to discuss factors influencing consumption of both healthy and unhealthy beverages, a number of participants recognized the impact of the beverage environment on their choices. Many discussed the wide variety of unhealthy beverages they were often inundated with when trying to find something to drink and felt that the number of healthy beverage options needs to increase.

- “If I have it at home, I will drink it. So I don’t buy it.”
- “A lot of people know that they shouldn’t be drinking or eating this and that. But in areas like workplaces and schools, it’s just readily available. There are vending machines and people are busy and don’t have time to make healthy choices. So they just grab whatever is convenient.”
- “Seems like they’re just making more and more of these drinks, giving people more choices and options to pick from instead of having something healthier.”
- “I used to notice all they had was soda. Now they have juices and water. So that’s a good thing to see. Less soda and other beverages in the machines. Wouldn’t see that years ago. Would only see soda.”

Participants also noted that beverage pricing and availability influences beverage selections. Most agreed that strategies need to be put in place to make healthy beverages cheaper and make them more easily accessible. Some went on to discuss disparities in availability of healthier beverages, stating that stores serving lower income families typically offer more unhealthy options. These participants felt that stores selling healthier beverages (e.g., 100% fruit juice) are more expensive and are not necessarily in places where lower income families shop.

- “A lot of people buy soda because it’s less expensive than other healthier drinks.”
- “Part of it is finances. It’s cheaper to buy a large coke than fruit juice. Must make juices more available for lower income families.”
- “If you’re on a budget and something’s cheaper, why not get that instead?”
- “I think a lot of people just don’t have choices.”

There was a general sense among participants that there is a lot of advertising for sugar-sweetened beverages, which in turn impacts consumption behaviors. The groups also expressed a desire for more advertisements for water.

- “Advertising has a lot to do with it. There’s just too much.”
- “You go to the supermarket or convenience store, and you see the big banners advertising for soda, and in aisles you see big display cases.”
- “Media has a big influence on the population.”
- “Need more water ads. They have a few now, but sodas and sports drinks have way more advertisements.”
- “If water were being passed out more frequently on corners, and had more ads on buses and TV, it probably would help to deter drinking soda and help people to think more about water.”

Responses to campaign. About one third of participants had seen the Pouring on the Pounds advertisement. A couple of these participants said that the image made them think about beverages and subsequently cut back on soda. Some of the others who had seen it also had strong reactions.

- “Looking at that definitely got me to cut back on my soda and drink more water.”
- “It does get your attention.”
- “It is visually impactful. Have to make it gross.”
- “Gross, scary. Forced to look at your body right there. That’s a great picture. I really hated that.”
- “While I haven’t talked to anyone about this ad, I can see this coming up in conversation because it’s so shocking.”

Many participants, including those who were seeing it for the first time during these groups, felt that the campaign message was not clear. Some found it difficult to tell that the beverage pictured was soda and did not recognize that it was body fat that was being poured into the glass. They did not think that the advertisement provides a message that clearly links weight gain to soda intake.

- “It looks like an alcoholic beverage.”
- “That’s an exaggeration. Drinking soda isn’t going to give you that much fat in your body.”
- “I think it’s a great ad., but it’s unclear.”
- “Putting the words soda on the bottle would have helped.”
- “What they’re trying to say is in very small print.”
- “Most people don’t read words on ads.”
- “Up close you could tell it’s fat, but not from far away.”

In terms of limitations of this campaign, all participants felt that the advertisement should have been displayed in a number of languages besides English to be effective in San Francisco. Participants also agreed that this advertisement would not be effective with youth. Others talked about the limitations of advertising for changing behavior and felt that more point-of-sale information would be impactful for influencing purchasing.

- “Most of us know that water is good for us, but how many of us can say we drink 8 glasses of water a day?”
- “For kids and teenagers, have to make something wittier. Or even more gross.”
- “It’s a disturbing ad., but I don’t know if I’m thinking about that at lunch when I’m grabbing something. It doesn’t pop into my head. I think about it when I see the ad, but it doesn’t translate after I walk off the bus.”
- “It really goes in one ear and out the other.”

Policy. In terms of policy strategies that aim to reduce consumption of soda and other sugar-sweetened drinks and encourage healthy alternatives, there was general support for sugar-sweetened beverage taxes if the revenue would support nutrition and physical activity promotion efforts. One participant suggested that tax revenue be used to subsidize the prices of healthy beverages. Despite this high level of support, most participants did not think taxation would stop people from drinking sugar-sweetened beverages. Many participants cited parallels with the introduction of tobacco taxes and public health policy movement to reduce smoking.

- “I’d like to not just tax the bad choices, but also use the revenues from those taxes to serve as a subsidy for the manufactures of healthier choices.”
- “Even if they tax it, if it’s still cheaper than healthier drinks, it’s not going to change anything.”
- “I still smoke even though prices have gone up. I’m still going to buy them.”

As for other policy strategies, some participants felt that standards that only allow healthy beverages to be sold in public worksites would be a helpful strategy. They thought this approach would be a good way to make unhealthy choices less accessible and healthy choices more convenient, noting that the latter would need to be offered at a comparable price. Others felt that adults should have a wide selection of beverage choices.

- “I’d like to make it inconvenient to make bad choices. It forces the person to put forth effort to make the bad choice.”
- “I’d be bummed if I didn’t have the options. Someone’s making a decision for me.”
- “If you ban it, it’s a psychological thing, you’d want it more.”
- “You’re taking away our right, our love for stuff. Taking away our freedom of choice.”
- “Don’t penalize people or someone for liking it.”

Other recommendations focused on targeting kids with intervention efforts, especially since previous studies have shown that youth have the highest consumption rates of sugar-sweetened beverages.

- “It has to start with children and youth. Education has to start early.”
- “Really target children – that is where it’ll have the most impact.”

- “Need a more comprehensive approach that works in schools to educate kids and get them used to drinking healthy beverages.”

KEY INFORMANT INTERVIEWS

Semi-structured phone interviews were conducted to gather qualitative data about the campaign and related health and policy issues from a variety of viewpoints. A total of seven key informants were interviewed including community leaders and representatives from SFDPH, the San Francisco Mayor’s office, and local non-profit organizations. Interviews lasted approximately 30 minutes each. Questions focused on:

- Awareness of the relationship between consumption of sugar-sweetened beverages vs. healthy alternatives, obesity, and related chronic illnesses
- The extent to which leaders and policymakers were engaged in the campaign
- Perceptions of the impact of the campaign on public opinion and beverage consumption
- Feedback on the campaign
- The level of support for media, legislative, and institutional policy strategies that aim to reduce consumption of sugar-sweetened beverages, promote healthy beverages, and create a revenue stream for health promotion programming

Findings

Relationship between sugar-sweetened beverages and obesity. The majority of interviewees felt that consumption of soda and other sugar-sweetened beverages contributes significantly to obesity and related chronic illnesses, noting that there have been several research studies and reports that directly link sugar-sweetened beverage consumption to obesity. Other interviewees stated that consumption of these beverages is not the sole cause of obesity and other factors, such as physical activity, need to be considered in comprehensive prevention efforts.

Engagement in the campaign and other efforts to reduce consumption of sugar-sweetened beverages. While all of the interviewees stated that they were aware of the Pouring on the Pounds Campaign, most stated that they were not directly involved. However, all interviewees mentioned that they are currently involved in other efforts to reduce consumption of sugar-sweetened beverages. Examples of other efforts included:

- The Soda Free Summer Campaign
- The Drink Water Says the Otter Campaign
- The Rethink Your Drink Campaign
- Developing and/or implementing policies that limit the availability of sugar-sweetened beverages in city buildings and other facilities

Perceptions of the campaign. When asked about how effective they thought the campaign was, interviewees agreed that the overall impact of the campaign was difficult to determine. Several mentioned that because there were other beverage consumption oriented initiatives occurring simultaneously in San Francisco, they could not differentiate between the impact of this campaign and that of the other initiatives. Many interviewees also felt that advertising campaigns alone are not effective but are an important component of larger efforts that include multi-faceted strategies aimed at addressing various related issues.

When asked about strategies they would recommend to other localities/states that are interested in using a similar advertising campaign, most interviewees reiterated the importance of implementing multiple strategies in conjunction with an advertising campaign. One interviewee mentioned that advertisements also need to be tailored to the community where they are run, and another stated that the advertisements need to run for a longer period of time.

Strategies for reducing the consumption of sugar-sweetened beverages.

Interviewees provided a number of strategies for reducing the consumption of sugar-sweetened beverages. These strategies included:

- Executive directives to limit access to sugar-sweetened beverages
- Taxes on sugar-sweetened beverages
- Culturally competent and point-of-sale advertising
- Reducing the accessibility of sugar-sweetened beverages in schools and other facilities
- Working directly with families to help them change their habits
- Reducing advertising and marketing of sugar-sweetened beverages in public spaces

However, similar to what was stated above, most interviewees noted that using any of these individual strategies in isolation would not be as effective as a multi-level campaign that combines many strategies. A few interviewees also mentioned that it is important to learn from previous anti-smoking campaigns, which not only encompassed advertising, programs, and education aimed at individuals, but also included broad policy and environmental change initiatives.

Support for strategies to reduce consumption of sugar-sweetened beverages.

When asked about public support and political will around implementing media, policy, and/or tax strategies to reduce the consumption of sugar-sweetened beverages, interviewees identified several stakeholders that have shown support for some or all of these strategies. These stakeholders included: SFDPH; San Francisco Department of Children, Youth, and their Families; the YMCA; Kaiser Permanente; Shape Up San Francisco participating organizations; private philanthropic foundations; the Mayor of San Francisco; Board of Supervisors; and several non-profit organizations.

However, despite the wide range of supportive stakeholders identified, several interviewees stated that there was still a lack of leadership from elected officials around sugar-sweetened beverages efforts and additional support is needed from small businesses, large corporations, private healthcare providers, schools, Parent Teacher Associations, and community groups. A few interviewees stated that it would be difficult to implement strategies to reduce sugar-sweetened beverage consumption without greater leadership from elected officials and support from a wide coalition of stakeholders.

LIMITATIONS OF THIS EVALUATION

Since baseline data were not collected before the campaign was initiated, it is not possible to draw conclusions about causality or change that has occurred as a result of the campaign. The evaluation followed a retrospective design, which may have limited recall of the campaign. Social desirability bias also may have affected the accuracy of responses because they were self-reported. A few focus group participants suffered from diabetes and other health issues that may affect their beverage choices. Some respondents may have said they do not drink any sugar-sweetened beverages because they do not drink soda and did not consider other similar drinks to be in the same category despite clarification by interviewers.

CONCLUSIONS

Overall, few respondents reported drinking regular soda and other sugar-sweetened beverages on a frequent basis. Most respondents across all three data collection methods saw a strong relationship between consumption of these types of drinks and health outcomes including obesity. While much of our sample recognized that environmental factors influence beverage choices, many respondents expressed reluctance for policies that would restrict sales of certain types of beverages. Most respondents were in favor of taxation of sugar-sweetened beverages but thought it may have limited effectiveness in reducing consumption.

Approximately one-third of survey and focus group respondents were familiar with the Pouring on the Pounds campaign, but its impact may have been limited. Social marketing campaigns such as this one are useful for raising awareness but may have limited effectiveness without complimentary environmental change strategies. Nonetheless, there remains optimism that if broad coalitions can be formed and multiple strategies are implemented, a reduction in sugar-sweetened beverage consumption and subsequent improvements in health will ultimately occur in San Francisco.

STRATEGIES TO REDUCE SUGAR-SWEETENED BEVERAGE CONSUMPTION

From the findings of this evaluation and experience gained from San Francisco's Pouring on the Pounds campaign, come several recommended strategies for how to use social marketing to create healthier beverage environments as a tool for preventing and reducing obesity.

- Maximize campaign effectiveness by identifying a specific target population and tailoring advertisements to this population's culture, values, and priorities. Wherever possible, choose target populations that are most in need of change strategies, for example lower income communities of color since they are disproportionately affected by obesity and related illnesses, or youth as they are attuned to media messages and have some of the highest soda consumption rates.
- Pre-test social marketing materials locally with the target population(s) to assure that materials are meaningful, gauge potential impact with members of various demographic groups, and assess whether a strategy is appropriate for a particular community.
- Expand the reach of future advertising campaigns by placing a greater number of advertisements in more locations (e.g. 200 bus exteriors and 600 interiors), and running them for a longer period of time (i.e. at least 3 months).
- Encourage advertising of healthy alternatives and limit advertising and marketing of soda and other sugar-sweetened beverages, especially when it is directed towards youth.
- Promote complimentary efforts to increase intake of healthy foods and encourage physical activity and institute comprehensive obesity prevention initiatives that address multiple factors.
- Incorporate educational information about soda and other sugar-sweetened beverages into wellness programs.

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