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## Soda Consumption and Its Link to Obesity in California

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## Acknowledgements

- This presentation is based on the policy research brief "*Bubbling Over: Soda Consumption and Its Link to Obesity in California*"
- A collaborative effort of the UCLA Center for Health Policy Research and the California Center for Public Health Advocacy
- Co-authors: Malia Jones, Hongjian Yu, and Harold Goldstein
- Thanks to Joelle Wolstein for help in preparing this presentation

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## Background

- Childhood obesity rates rose from 4% to 17% in just four decades
- Approximately 2/3 of US adults are overweight or obese
- Nearly 1/3 of children are overweight or obese
- Obesity is associated with serious health risks for both children and adults

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## Obesity in California

Prevalence of obesity & overweight:

- 21% of adults are obese
- 35% of adults are overweight
- 14% of adolescents are obese
- 16% of adolescents are overweight

Each year in CA, overweight and obesity costs approximately \$21 billion

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## Changes in Beverage Consumption

- Drinking sweetened beverages is now more common than ever
- Between 1977 & 2002 Americans increased their caloric intake from soft drinks by 228%
- Average portion sizes have increased from 6.5 fl oz in the 1950s to 12 fl oz, 20 fl oz, and larger sizes today

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## Soft Drink Container Sizes



8 oz    12 oz    16 oz    20 oz    34 oz

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## Even Larger Containers



## Link Between SSBs and Obesity

- A number of studies have found that greater SSB consumption is associated with overweight and obesity among both adults and children
- Randomized, controlled trials that examine the impact of reducing SSB intake indicate that reducing SSB consumption leads to reductions in overweight and obesity

## SSBs & Weight Gain

- Soda and fruit drinks have added caloric sweeteners (for example sucrose or high fructose corn syrup)
- Calories in liquid form are not well regulated and therefore may lead to weight gain
- SSBs displace foods that may protect against excess weight gain
- SSB intake is consistently associated with higher calorie intake

## Study Objectives

- Describe current levels of soda consumption in California
- Examine association between obesity and consumption of soda and other sweetened beverages in California

## Study Methods

- Data from the 2005 California Health Interview Survey (CHIS)
- Respondents reported frequency of soda and sugar-sweetened beverage consumption
- Diet soft drinks and 100% fruit juice were excluded from our estimates of soda consumption
- We used the standard definitions of overweight and obesity used by the Centers for Disease Control and Prevention (CDC) based on self-reported height and weight

## 2005 California Health Interview Survey

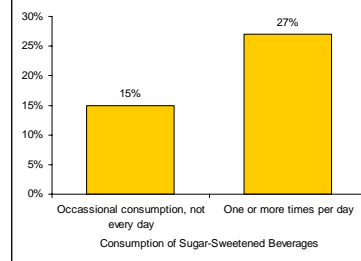
- Telephone survey of adults, adolescents and children from across the state conducted every two years
- Interviews conducted with over 43,000 adults drawn from every county in the state
- The data provide a representative sample of the state's non-institutionalized population, including health information on the overall population and on many racial and ethnic groups as well as local-level health information for most
- Interviews conducted in five languages: English, Spanish, Chinese, Korean and Vietnamese

## High Rates of Soda Consumption in California

- **41%** of young children drink one or more sodas or other sweetened beverages per day (2.2 million)
- **62%** of adolescents drink one or more sodas or other sweetened beverages per day (2.1 million)
- **24%** of adults drink one or more sodas or other sweetened beverages per day (6.4 million)

## Adults Who Drink Soda More Likely to Be Overweight or Obese

*Increased Likelihood of Being Overweight or Obese for Those Who Drink SSB Compared to Those Who Do Not, Adjusted for Race/Ethnicity and Income, Adults Age 18 and Over*



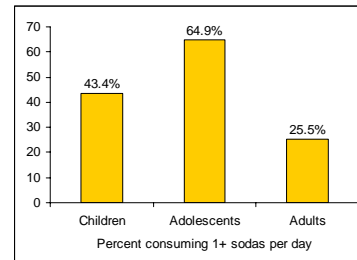
Source: 2005 California Health Interview Survey

## Soda Consumption Higher in Certain Counties

- Consumption of soda and other sugar-sweetened beverages varies from county to county and city to city
  - Ranges from 18% in Marin to 61% in Imperial for young children
  - from 39% in Mendocino to 78% in San Joaquin for adolescents
  - and from 11% in Marin to 39% in Kings for adults

## High Prevalence of Soda Consumption in Los Angeles County

*Percent of Los Angeles County residents that consume one or more sodas per day by age category*



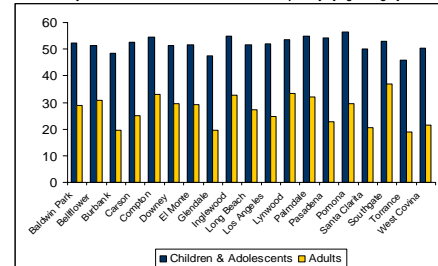
Source: 2005 California Health Interview Survey

## Soda Consumption Higher in Certain Cities within LA County

- Consumption of soda and other sugar-sweetened beverages varies from city to city within LA County
  - Ranges from 46% in Torrance to 57% in Pomona for children and adolescents
  - and from 19% in Torrance to 33% in Lynwood for adults

## Variation in Soda Consumption Among Cities in Los Angeles County

*Percent of city residents that consume one or more sodas per day by age category*



Source: 2005 California Health Interview Survey

## Conclusions

- **10.7 million** Californians drink at least one soda each day
- Adults who drink soda are more likely to be overweight or obese
- The existing research supports efforts to reduce consumption of sugar-sweetened beverages
- The research presented here also demonstrates the importance of ongoing surveillance of this public health problem



## What steps may help reduce consumption of SSBs?

- **Institutions can**
- Incorporate information about SSB consumption into workplace wellness programs
- Limit or replace SSB in vending machines
- Provide and sell healthy beverages at programs and events, especially those attended by children and adolescents
- Limit or exclude SSB advertising and sponsorship of events, sports leagues, facilities, and programs



## What steps may help reduce consumption of SSBs?

In addition to those previously mentioned **cities and counties** can also:

- Place a surcharge on SSB and use revenue for obesity prevention efforts, such as:
  - After-school programs
  - Physical education in schools
  - Healthy school food programs
  - Improvements in parks and recreation programs



## What steps may help reduce consumption of SSBs?

- **States can**
- Impose an industry fee on SSB and earmark the revenues for community-based prevention programs, with funds going to communities in proportion to their consumption levels
- Prohibit marketing of soda and other sugar-sweetened beverages on public school campuses K-12



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