The Changing Face of Nutrition in Public Health Practice

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Los Angeles County Department of Public Health

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Crude Death Rate for Infectious Diseases, United States, 1900 - 1998

* Rate is per 100,000 people

MMRV, CDC, 1999
Early Twentieth Century Milk Station
Transition during the mid-20th century from a society plagued by hunger, malnutrition, and “stunting” to one of hunger, “dysnutrition,” and obesity.
Trends in overweight, obesity, and extreme obesity among adults aged 20-74 years, United States, 1960-2008.

NOTE: Age-adjusted by the direct method to the year 2000 U.S. Census Bureau estimates, using the age groups 20–39, 40–59, and 60–74 years. Pregnant females were excluded. Overweight is defined as a body mass index (BMI) of 25 or greater but less than 30; obesity is a BMI greater than or equal to 30; extreme obesity is a BMI greater than or equal to 40.

Prevalence of Obesity Among Children in the United States (Source: NHANES)

<table>
<thead>
<tr>
<th>NHANES Study Period</th>
<th>6–11 years of age</th>
<th>12–19 years of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963–65</td>
<td>4.2</td>
<td>4.6</td>
</tr>
<tr>
<td>1971–74</td>
<td>4.0</td>
<td>6.1</td>
</tr>
<tr>
<td>1976–80</td>
<td>6.5</td>
<td>5.0</td>
</tr>
<tr>
<td>1988–94</td>
<td>11.3</td>
<td>10.5</td>
</tr>
<tr>
<td>1999–2000</td>
<td>15.3</td>
<td>15.5</td>
</tr>
</tbody>
</table>
Prevalence of Obesity and Diabetes Among Adults in Los Angeles County, 1997-2011

Source: Los Angeles County Health Survey, Department of Public Health
Prevalence of Obesity Among 5th, 7th, and 9th Graders in Los Angeles County Public Schools, California Physical Fitness Testing, 1999-2010

Healthy People 2020 Goal (<5%)
Prevalence of Obesity
Projected obesity prevalence assuming linear trend
Obesity Prevalence Among 3 and 4 Year Olds in the WIC Program, LA County, 2003-2014

Source: PHFE WIC Program, LA County
## Cities/Communities with Lowest and Highest Childhood Obesity Prevalence, 2010

### Top 10*

<table>
<thead>
<tr>
<th>City/Community Name</th>
<th>Obesity Prevalence (%)</th>
<th>Rank of Economic Hardship (1 - 117)</th>
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</thead>
<tbody>
<tr>
<td>Manhattan Beach</td>
<td>2.8</td>
<td>5</td>
<td>LA City Council District 8</td>
<td>29.3</td>
<td>98</td>
</tr>
<tr>
<td>Agoura Hills</td>
<td>4.0</td>
<td>10</td>
<td>El Monte</td>
<td>29.3</td>
<td>99</td>
</tr>
<tr>
<td>Palos Verdes Estates</td>
<td>5.6</td>
<td>2</td>
<td>LA City Council District 9</td>
<td>29.4</td>
<td>117</td>
</tr>
<tr>
<td>Calabasas</td>
<td>6.4</td>
<td>15</td>
<td>Pomona</td>
<td>29.8</td>
<td>91</td>
</tr>
<tr>
<td>Beverly Hills</td>
<td>7.5</td>
<td>18</td>
<td>South Gate</td>
<td>30.7</td>
<td>101</td>
</tr>
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<td>South Pasadena</td>
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<td>16</td>
<td>Huntington Park</td>
<td>30.7</td>
<td>105</td>
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<tr>
<td>Arcadia</td>
<td>8.8</td>
<td>25</td>
<td>Florence-Graham</td>
<td>31.1</td>
<td>116</td>
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<tr>
<td>El Segundo</td>
<td>8.9</td>
<td>7</td>
<td>East Los Angeles</td>
<td>31.1</td>
<td>109</td>
</tr>
<tr>
<td>Santa Monica</td>
<td>10.2</td>
<td>9</td>
<td>West Whittier-Los Nietos</td>
<td>31.3</td>
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<tr>
<td>La Crescenta-Montrose</td>
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<td>23</td>
<td>South El Monte</td>
<td>34.1</td>
<td>97</td>
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<td>Average 10 lowest</td>
<td>7.2%</td>
<td></td>
<td>Average 10 highest</td>
<td>30.7%</td>
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<tr>
<td>Ave Median Household Income</td>
<td>$100,184</td>
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* Excludes cities/communities where number of students with BMI data < 500.

Sources: California Department of Education Physical Fitness Testing Program (5th, 7th, and 9th graders enrolled in LAC public schools); U.S. Census Bureau, 2005-2009 5-Year American Community Survey (MHI in 2009 inflation-adjusted dollars)
Why is there an Obesity Epidemic?

- A chronic energy imbalance (calories in greater than calories out)

- But what has changed that would lead millions more to be obese today than a generation ago?
  - “Lifestyles have changed!”
  - But why have lifestyles changed so dramatically?
  - Loss of willpower?
  - Lack of knowledge and awareness?
  - What about the environment?
The Industrialization of Agriculture
NOW 100% NATURAL.

CHECK OUT OUR TV ADS, NOW 100% NATURAL.

The famously crisp, refreshing taste of 7UP® is now better than ever, because it’s been stripped of the artificial stuff found in most other soft drinks. Pick one up today.
Children “Branded” at a Very Young Age

- A study* of 3-5 yr. old low income children found that they rated foods in McDonald’s wrappers as tasting better than the identical foods served in wrappers without the McDonald’s logo.

- Effect was found for chicken nuggets, french fries, carrots, and milk or apple juice.

- The effect was stronger among children who watched more television and those who ate at McDonald’s more often.

We Now Accept EBT
2 Liters
2 for $3.00
Coca-Cola
Coca-Cola Zero
The Role of Registered Dieticians in Public Health: My Perspective!

- Subject matter expert (technical advisor)
- Community educator
- Program director
- Program manager and initiative lead
- Policy analyst, advocate, and implementer
- Leadership and vision
My Go To Person for Thorny Questions

• Is a calorie a calorie?
• How do nutrient requirements change during childhood?
• What are the health effects of energy drinks?
• Are GMO foods safe?
• Is HFCS more harmful than other sugars?
• Does fructose have unique adverse health effects?
• Is this weight loss dietary supplement safe?
Where Value Judgments Sometimes Muddy the Water

- Are there good foods and bad foods?
- How about healthy diets and unhealthy diets?
- Should we tax sugary beverages?
- How about warning labels?
- How about restricting where foods are sold?
- Should our messaging campaigns be positive or negative, or informational only?
Efforts to Improve Food Environments

- Childcare, pre-schools, and schools
- Government venues
- Community settings (small neighborhood markets, farmers’ markets, supermarkets, restaurants)
- Counter-marketing campaigns
- Direct engagement of food industry
**Sugar Sweetened Beverage Public Education Campaign**

_Usted no se comería 22 paquetes de azúcar. ¿Por qué se los toma?_

Extra calorías en bebidas cargadas de azúcar pueden causar obesidad, diabetes, enfermedades del corazón y algunos tipos de cáncer.

_You wouldn’t eat 22 packs of sugar. Why are you drinking them?_

Extra calories in sugar-loaded drinks may lead to obesity, diabetes, heart disease and some cancers.
Declines in Sugar-Sweetened Beverage Consumption Among Children in Los Angeles County, 2007 and 2011

Paul A. Simon, MD, MPH; Amy S. Lightstone, MPH, MA; Steve Baldwin, RD, MS; Tony Kuo, MD, MSHS; Margaret Shih, MD, PhD; Jonathan E. Fielding, MD, MPH


Abstract

This study assessed changes in consumption of sugar-sweetened beverages (SSBs) among children (aged ≤17 years) in Los Angeles County. We analyzed children’s data from the 2007 (n = 5,595) and 2011 (n = 5,934) Los Angeles County Health Survey. The percentage of children who consumed 1 or more SSB per day decreased from 43.3% in 2007 to 39.3% in 2011 (P < .001); this decrease was seen across most sociodemographic subgroups. Despite measurable progress in reducing SSB consumption among children in Los Angeles County, consumption remains high, highlighting the need for additional policy and programmatic interventions.
Curbing Unhealthy Food and Beverage Marketing to Young Children

- The food industry spent 1.79 billion dollars on food marketing to children in 2009, most on foods and beverages with little or no nutritional value (FTC, 2012).
- A local report developed by ChangeLab Solutions will soon be released on local strategies to reduce marketing of unhealthy foods and beverages to young children.
“Bye-bye, burgers: New fast-food chains bet on healthy eating”
The Real Cost of Food
Can Taxes and Subsidies Improve Public Health?

Suboptimal diet quality is among the leading factors associated with death and disability in the United States and globally. Strategies to address suboptimal diet focus on nutrition education through dietary guidelines and food package labeling. However, this approach places responsibility for healthier diets on an individual’s ability to make informed choices rather than addressing the complex, powerful environmental determinants of dietary habits. Not surprisingly, this strategy has fallen short, as demonstrated by the increasing rates of obesity, diabetes, and other diet-related illness.

At the same time, the health care system has prioritized medications, devices, and procedures to treat rather than prevent diseases and their risk factors. These sophisticated technologies have helped reduce cardiovascular mortality, but at substantial cost. Health care expenses have increased rapidly in the United States and now represent about 18% of gross domestic product—nearly 1 in every 5 dollars—with a large fraction related to chronic disease. The current eco-

healthful foods. In addition, a subsidy component minimizes the regressive nature of taxation alone; indeed, food costs for many individuals could decline with healthier choices in this system. Higher-quality diets typically cost more than lower-quality diets—on average, about $1.50 more per person per day—providing a short-term financial disincentive to eat healthfully. Existing empirical evidence suggests that a combined tax and subsidy ranging from 10% to 30% would have a meaningful influence on dietary choices.

Over time, the tax subsidy scheme could be calibrated to be broadly revenue neutral.

Most prior food tax proposals have targeted one or a limited number of food products; for instance, sugar-sweetened beverages. Although meritorious, those proposals do not address the full public health challenge of poor diets and diet-related disease, which arise from fundamentally unhealthful eating patterns across a range of beverage and food categories. An alternative, potentially more effective approach is to institute a meaningful tax on
The Nanny

You only thought you lived in the land of the free.

Bye Bye Venti

Nanny Bloomberg has taken his strange obsession with what you eat one step further. He now wants to make it illegal to serve "sugary drinks" bigger than 16 oz. What's next? Limits on the width of a pizza slice, size of a hamburger or amount of cream cheese on your bagel?

New Yorkers need a Mayor, not a Nanny.

Find out more at ConsumerFreedom.com
For More Information

www.publichealth.lacounty.gov/chronic/

www.choosehealthla.com