Menu Labeling: A Promising Strategy for Combating the Obesity Epidemic

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Why the Interest in Menu Labeling?

- Americans are eating out more than ever before--in LA County, one in four children 2-17 years of age ate fast food in the past day (2005 LA County Health Survey).
- Supersizing of restaurant food and beverage portions has become widespread.
- Fast food consumption linked with increased caloric intake and excess weight gain.
- Studies have shown that most people (even nutritionists) greatly underestimate the caloric content of restaurant menu items.
- Calorie and other nutritional information not generally available at the point of purchase in restaurants (in contrast to packaged food products which are required by the FDA to include nutrition information).

Menu Labeling Initiatives

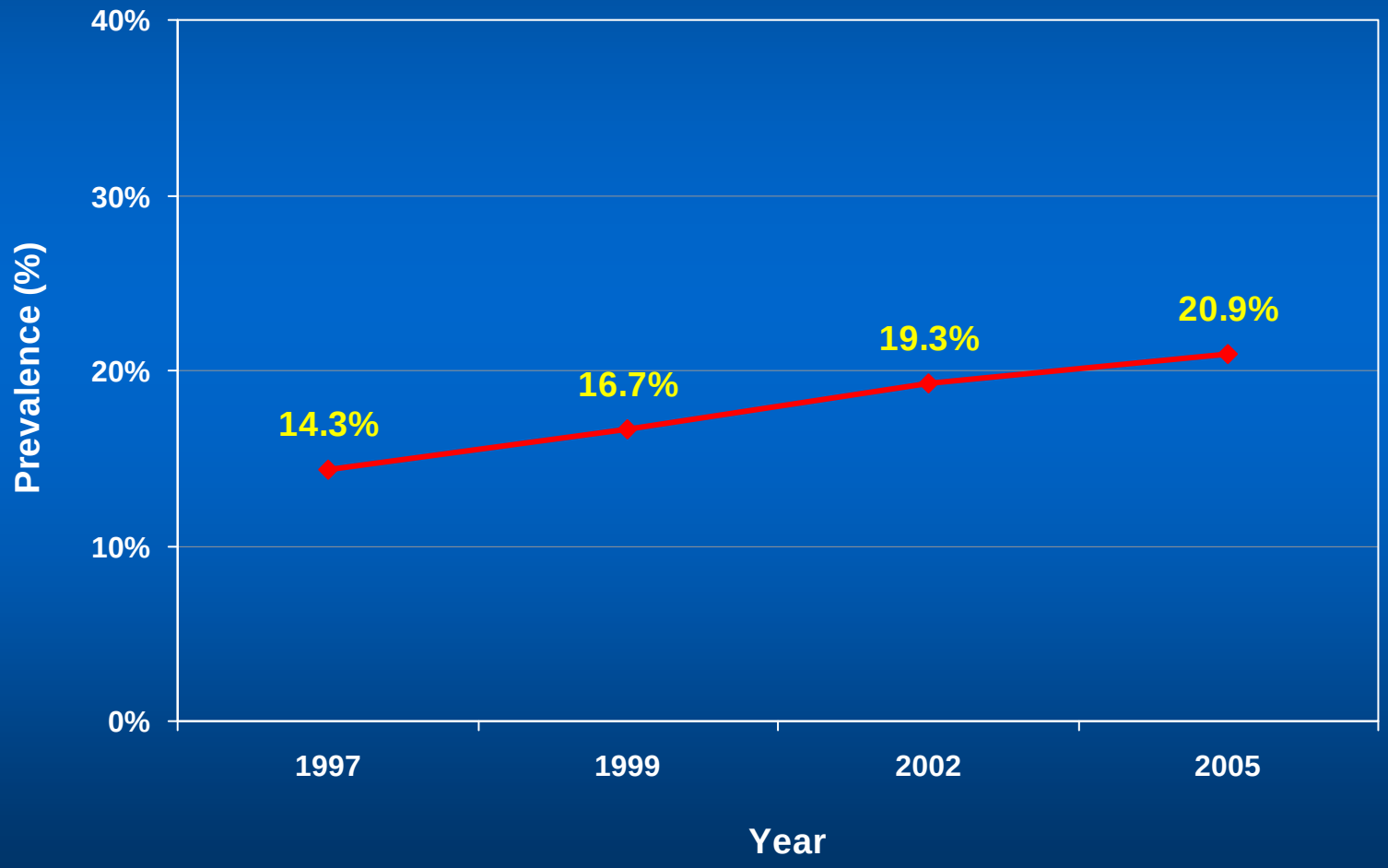
- Most of the action has been at the local level (e.g., New York City, Seattle-King County, San Francisco, Santa Clara County, San Mateo County, and Los Angeles County).
- California is expected to pass the first statewide menu labeling measure in the next several weeks (SB 1420)
  - will include restaurant chains with 20 or more outlets
  - will include menu boards and menu's in the restaurant but not drive-thru's
  - will preempt local action

But What is the Potential Impact of Menu Labeling on the Obesity Epidemic?

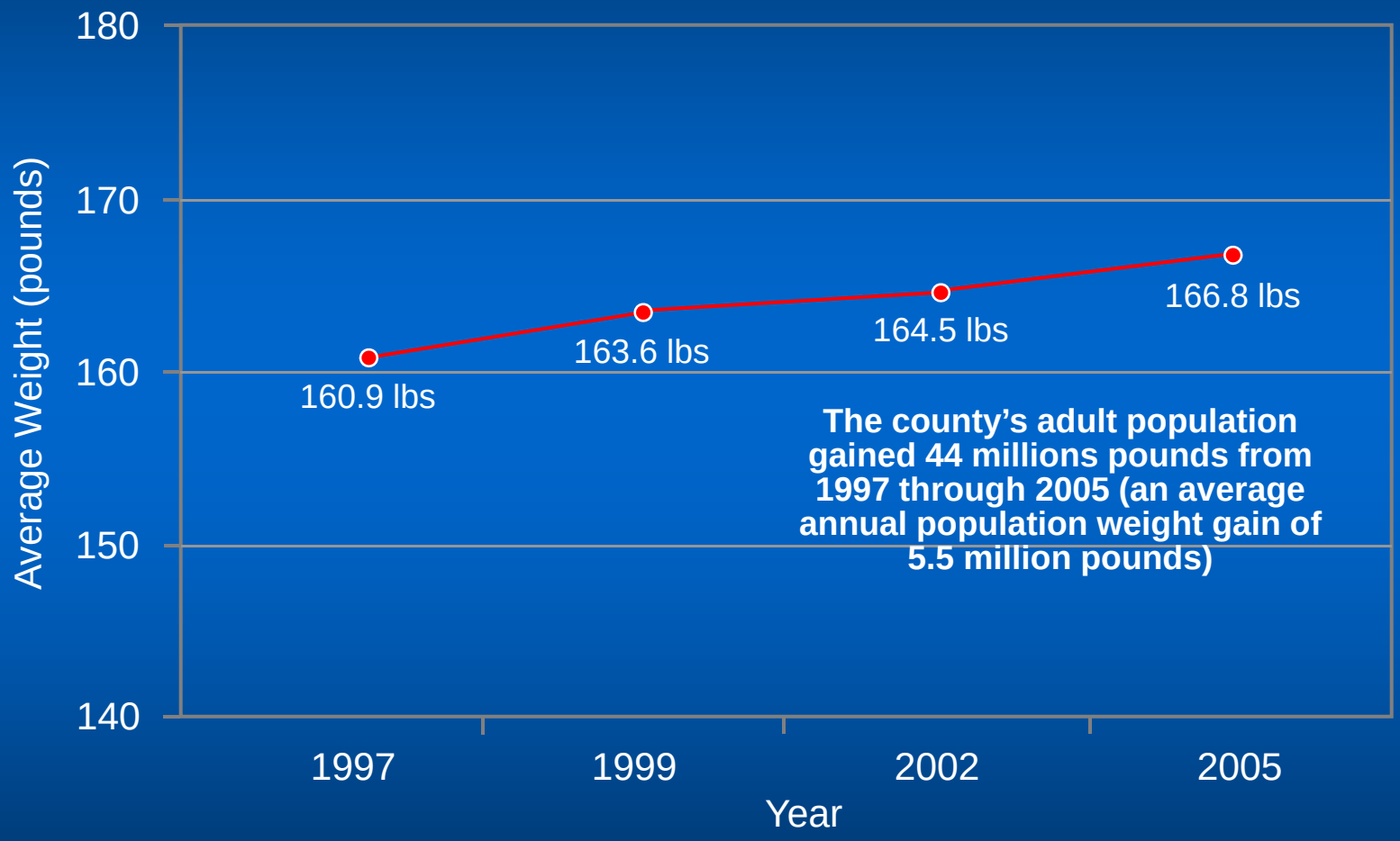
- Limited information in the published literature.
- To address this gap, LA County's Department of Public Health conducted a health impact assessment (HIA) of menu labeling, as specified in the original version of SB 1420,* on the obesity epidemic in Los Angeles County.
- HIA is a combination of procedures, methods, and tools by which a policy, program, or project may be judged in terms of its potential effects on the health of a population (WHO, 1999).

* The original version of SB 1420 included restaurant chains with 15 or more outlets statewide (not 20 or more as specified in the final version).

Prevalence of Obesity Among Adults in Los Angeles County, 1997-2005



Average Weight Among Adults in Los Angeles County



Source: County of Los Angeles, Public Health, Office of Health Assessment and Epidemiology

Average Annual Population Weight Gain in Los Angeles County

Metric	Estimate	Data Source
Average annual weight gain, ages 18 years and older (pounds)	5,500,000	Los Angeles County Health Survey
Average annual weight gain, ages 5 to 17 years (pounds)	1,250,000	California Physical Fitness Testing Program
Average total annual weight gain, ages 5 years and older (pounds)	6,750,000	

Projected Impact of Menu Labeling

Study Assumptions

- Restaurant patrons who order reduced calorie meals will not compensate by increasing their food and beverage intake at other times during the day
- These patrons will also not alter their physical activity levels in response to their dietary changes.
- Their resting metabolic rate will not change as a result of the small reduction in caloric intake.

Projected Impact of Menu Labeling

Item No.	Metric	Estimate	Basis
1	Total annual restaurant revenue, Los Angeles County	**$14,600,000,000**	Statewide estimate from the National Restaurant Association pro-rated by Los Angeles County's percentage of the state population.
2	Large chain restaurant market share, 15 or more stores in California	**51%**	Extrapolated from NPG Group, 2005.
3	Large chain restaurant revenue, Los Angeles County	**$7,446,000,000**	Calculated from items 1 and 2
4	Average price per meal in large chains (sit-down and fast food)	**$7.80**	Based on 1992 national meal price estimates, adjusted for inflation
5	Annual number of meals served, Los Angeles County	**954,615,385**	Calculated from items 3 and 4
6	Annual number of meals served, ages zero to four years	**36,500,000**	Los Angeles County Health Survey (2005)
7	Annual number of meals served, ages five and older	**918,115,385**	Calculated from items 5 and 6
8	Percentage of reduced calorie meals selected as a result of menu labeling	**10%**	Extrapolated from data published by Burton, et al, American Journal of Public Health (2006)
9	Annual number of reduced-calorie meals	**91,811,538**	Calculated from items 7 and 8
10	Average amount of calorie reduction per meal	**100**	Extrapolation from data published by Bassett, et al, American Journal of Public Health (2008)

Projected Impact (continued)

Item No.	Metric	Estimate	Basis
11	Total annual number of reduced calories attributable to menu labeling	**9,181,153,846**	Calculated from items 9 and 10
12	Calories per pound of weight	**3,500**	American Dietetic Association Complete Food and Nutrition Guide, second edition (2002)
13	Total annual pounds of weight loss attributable to menu labeling	**2,623,187**	Calculated from items 11 and 12
14	Average annual weight gain, ages 18 years and older (pounds)	**5,500,000**	Calculated using data from the 1997 and 2005 Los Angeles County Health Survey
15	Average annual weight gain, ages 5 to 17 years (pounds)	**1,250,000**	Calculated using data from the 1999 and 2006 California Physical Fitness Testing Program
16	Average annual weight gain, ages 5 and older (pounds)	**6,750,000**	Calculated from items 14 and 15
17	Percentage of population weight gain averted due to menu labeling	**38.9%**	Calculated from items 13 and 16

Results (sensitivity analysis)

Average Amount of Calorie Reduction	Percentage of Patrons Who Purchase a Lower-Calorie Meal as a Result of Menu Labeling				
	10%	20%	30%	40%	50%
25	9.7%	19.4%	29.1%	38.9%	48.6%
50	19.4%	38.9%	58.3%	77.7%	97.2%
75	29.1%	58.3%	87.4%	116.6%	145.7%
100	38.9%	77.7%	116.6%	155.4%	194.3%
125	48.6%	97.2%	145.7%	194.3%	242.9%
150	58.3%	116.6%	174.9%	233.2%	291.5%
175	68.0%	136.0%	204.0%	272.0%	340.0%
200	77.7%	155.4%	233.2%	310.9%	388.6%

Green — population weight gain averted (net weight gain still exceeds net weight loss)
Yellow — population weight gain averted (net weight loss now exceeds net weight gain)

How feasible are these calorie reductions?

- Analysis of data from three fast food chains indicate that changing:
  - from a large to medium soft drink would save 95 calories
  - from a large to medium order of french fries would save 163 calories
  - from a double meat to single meat patty hamburger would save 244 calories

Conclusions

- Small reductions in calories consumed at large chain restaurants by a relatively small percentage of patrons have the potential to significantly reduce the obesity epidemic, as measured by population weight gain.
- Impact on population weight gain could potentially be greatly enhanced with public education, pricing incentives, or other strategies to increase the percentage of patrons that order reduced calorie meals.
- Potential indirect benefits
  - increased public awareness regarding portion size, potentially leading to social norm change toward smaller portions
  - create incentives for large chain restaurants to offer lower calorie menu options

Issue: State and local menu labeling laws.
Recommendation: Federal government should support state and local efforts to implement and evaluate the impacts of menu labeling laws (e.g., funding, technical support, public and restaurant industry education)
Rationale: Few state or local jurisdictions have menu labeling laws in place. Little information is available on the relative effectiveness of various design elements of menu labeling laws and how impacts might vary across diverse populations.

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Issue: Federal menu labeling law.

Recommendation: Consider support for a federal menu labeling law—high priority elements include a non-preemption clause, inclusion of restaurant chains with as few as 10 outlets, and required calorie postings on menus and menu boards (including drive-thru's).

Rationale: A strong federal menu labeling law will provide the benefits of nationwide coverage and a uniform standard. However, if the law includes preemption, it risks compromising state and local efforts and innovation.

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Cities/Communities with Lowest and Highest Childhood Obesity Rates

Top 10*

City/Community Name	2005 Youth Obesity Rate (%)	Rank of Economic Hardship (1 - 128)
Manhattan Beach	4.2	2
Palos Verdes Estates	6.3	5
Beverly Hills	6.9	19
San Marino	7.1	15
Agoura Hills	7.3	10
Calabasas	8.0	8
South Pasadena	9.0	17
La Canada Flintridge	11.4	18
Rancho Palos Verdes	11.6	13
Arcadia	12.3	35
Average 10 lowest	**8.0%**	

Bottom 10*

City/Community Name	2005 Youth Obesity Rate (%)	Rank of Economic Hardship (1 - 128)
Cudahy	29.4	123
West Whittier-Los Nietos	29.7	81
West Puente Valley	30.0	90
Bell	30.2	115
Willowbrook	30.5	116
Huntington Park	30.6	122
East Los Angeles	31.9	117
Florence-Graham	32.0	128
San Fernando	32.9	103
Maywood	37.4	121
Average 10 highest	**31.5%**	

***Table excludes cities/communities where number of students with BMI data < 500.**

Source: California Physical Fitness Testing Program, California Department of Education. Includes 5th, 7th, and 9th graders enrolled in LA County public schools.

County of Los Angeles Public Health