Does the public really want menu-labeling in fast food restaurants?

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Presenter Disclosure

Speaker: Jennifer Piron

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:
  - No relationships to disclose
Objectives

• Describe the scope of the obesity epidemic and its contributing factors.

• Examine the attitudes about menu labeling and influence on purchasing intentions.

• Present practical research strategies for sampling the public regarding nutrition and local food environments.
Scope of the obesity epidemic and its contributing factors

- 66% of Americans are overweight or obese\(^a\)
- Nearly 50% of the food dollar is spent on foods consumed outside of the home
- In 2006, only 54% of leading restaurant chains had nutrition information in some form\(^b\)
- Many consumers have no idea how many calories a meal contains at food facilities

\(^a\)http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght_adult_03.htm;
**Example of Menu-labeling**

*McDreamy’s Restaurant & Donut Shoppe*

<table>
<thead>
<tr>
<th>Item</th>
<th>Calories</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheeseburger (4 oz.)</td>
<td>300</td>
<td>$2.79</td>
</tr>
<tr>
<td>Large fries (5.4 oz.)</td>
<td>500</td>
<td>$1.39</td>
</tr>
<tr>
<td>Large soda (32 oz.)</td>
<td>310</td>
<td>$1.19</td>
</tr>
<tr>
<td>Apple pie (2.7 oz.)</td>
<td>250</td>
<td>$0.99</td>
</tr>
</tbody>
</table>

Total 1,360
Current Legislation

- Menu-labeling is a strategy for addressing the obesity epidemic
  - New York City was the first to enact a menu-labeling ordinance
  - King County (Washington)
  - San Francisco
  - California (SB 1420)
California Legislation

• A previous attempt at menu-labeling failed in 2007 (SB 120)

• SB 1420 was passed on September 30, 2008*
  – By July 1, 2009 chains (>20 outlets in state) will have to provide brochures with nutrition information
  – By January 1, 2011 chains must provide calorie information on their menu boards

But, will they use the information?

- Limited research has assessed the public’s desire for, and use of, this information.
- Emerging evidence suggests that calorie information has resulted in food purchases with lower calorie content.
- Few studies have described the views and purchasing intentions of overweight and obese consumers.
Los Angeles County

- 4,000 sq miles
- 10.3 million population
- 47% Hispanic/Latino
- 30% White
- 13% Asian/PI
- 9% African-American
- >19 major chains with 2700 locations*
- 21% adults were obese**

Calorie and Nutrition Survey

• Pilot study in Los Angeles County:
  – Examined public interest in menu-labeling
  – Assessed ways the public will use this information to make menu choices
  – Identified the characteristics of individuals who would use menu-labeling information to eat fewer calories
Study Design, Questionnaire Development, and Data Collection

- 2-page, self-administered questionnaire in English and Spanish
- Questions: modified from previous CDC surveys on nutrition
- Survey was administered to patients at six public health centers in fast food dense areas
Data Analysis

- Univariate and bivariate analyses
- Logistic regression to identify characteristics of individuals who would use menu-labeling information to eat fewer calories
  - Applied Health Belief Model & current literature to select variables
  - Hosmer-Lemeshow Test assessed goodness-of-fit
- Performed all analyses in SAS 9.1
Demographic Variables

- Gender
- Age
- Race/Ethnicity
- Education
- Body Mass Index using height & weight*  

*According to CDC and USDA Nutrition guidelines.
Study Measures

• Knowledge of daily caloric requirements*
• Frequency of visits to McDonald’s
• Recalled seeing calorie info at McDonald’s
• Importance of info on menu board
• Info should be posted on menu boards
• How menu info used to order foods & drinks

*According to CDC and USDA Nutrition guidelines.
Who are the respondents?

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>54%</td>
</tr>
<tr>
<td>15-24 yrs</td>
<td>19%</td>
</tr>
<tr>
<td>25-34 yrs</td>
<td>34%</td>
</tr>
<tr>
<td>35-44 yrs</td>
<td>26%</td>
</tr>
<tr>
<td>45-54 yrs</td>
<td>13%</td>
</tr>
<tr>
<td>55-75 yrs</td>
<td>7%</td>
</tr>
<tr>
<td>African-American</td>
<td>28%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>43%</td>
</tr>
<tr>
<td>White</td>
<td>13%</td>
</tr>
</tbody>
</table>

*12% Asian/PI; 75% High school graduate

N=639
88% Response rate
Weight Status

- Underweight: 3%
- Normal: 37%
- Overweight: 34%
- Obese: 21%

N=639
Calorie Knowledge, Restaurant Visitations, and Attitudes Toward Menu-labeling

- 23% correct about daily caloric requirements*
- 74% visited McDonald’s in past year
  - 22% visited weekly
- 19% recalled seeing calorie info at McDonald’s
- 93% important to have calorie info on menu boards
- 86% info should be posted on menu boards

*According to CDC and USDA Nutrition guidelines.
If calorie information were listed next to menu items, respondents would choose items with...

- 67% choose items with less calories
- 15% choose items with the same calories
- 5% choose items with more calories
- 13% don't know
Predictors of Using Calorie Information to Order Foods with Fewer Calories

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Adjusted Odds Ratio*</th>
<th>95% CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female (vs. Male)</td>
<td>1.8</td>
<td>1.1, 3.0</td>
</tr>
<tr>
<td>25-34 yrs (vs. 15-24 yrs)</td>
<td>2.4</td>
<td>1.2, 4.8</td>
</tr>
<tr>
<td>55-75 yrs (vs. 15-24 yrs)</td>
<td>7.0</td>
<td>1.3, 39.4</td>
</tr>
<tr>
<td>Hispanic (vs. White)</td>
<td>3.4</td>
<td>1.5, 8.0</td>
</tr>
<tr>
<td>Obese (vs. Normal)</td>
<td>2.3</td>
<td>1.1, 5.0</td>
</tr>
<tr>
<td>Believes calorie info is important</td>
<td>6.6</td>
<td>2.4, 18.2</td>
</tr>
<tr>
<td>Calories should be posted</td>
<td>2.4</td>
<td>1.1, 4.9</td>
</tr>
</tbody>
</table>

*Adjusted for education, knowledge of daily calorie requirements, and frequency of eating at McDonald’s; H-L Goodness-of-fit = 0.55.
Conclusion

• There is moderate to strong public support for menu-labeling

• The public will use nutritional information at the point of purchase to reduce calorie consumption

• Further research is needed to study the impact of other nutritional information postings
Study Limitations

- Sample may not be representative of the general population
  - 28% African Americans in sample vs. 13% in general population

- However, sample is likely to represent the overweight/obese population and those who eat at fast food establishments

- Potential recall bias
Practical Research Strategies

- Use focus groups and scientific literature to develop survey instrument
- Number surveys and be sure to administer them sequentially
- If possible, avoid skip patterns and double-siding questionnaires
- Use friendly survey coordinators
- Provide nutritious (and tasty) food incentives (if using them)
Acknowledgments

Questionnaire Development, Translation, and Editing
Paul Simon, Director, DCDIP
Derek Ehrhardt, CDC EIS Officer
Jacqueline Valenzuela, Director, HEA
Kimberly Kisler, HEA
Maria Pacho, HEA
Gloria Alvarez, DCDIP Administration
Ibtisam Sirhan, Nutrition
Ivette Sandoval, Nutrition
Victoria Quintero, Nutrition
Pat Alexander, Director, BBH
Socorro Alanis, BBH
Thelma Castro, BBH
Cristin Mondy, Nurse Mgr, Central HC
Maria Lopez, SCN, Central HC
Patricia Pineda, Tobacco Control
Ava Cato-Werhane, Health Educator, SPAs 7 and 8
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Maria Jose Salmeron, HEA
Erika Gist-Siever, HEA
Socorro Alanis, BBH

Incentives Team
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Orville Bigelow, Nutrition
Immunization Program

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Veronica Rodriguez, SCN, Hollywood HC
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Elaine Massengil, Nurse Mgr, Tucker and Torrance HC
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BBH=Binational Border Health; DCDIP=Division of Chronic Disease and Injury Prevention; HEA=Health Education Administration
Questions?