Evaluating the Long-Term Impact of Nutrition Standards and Other Healthy Food Procurement Practices in Los Angeles County

NOPREN Food Service Guidelines Workgroup Meeting

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Los Angeles County Department of Public Health
Overview

• Quick recap of programmatic and evaluation healthy food procurement efforts in Los Angeles County
• Highlight long-term impact evaluation activities
• Discuss lessons learned
Brief Recap of Programmatic and Evaluation Efforts in Los Angeles County
Healthy Food Procurement (HFP) Initiative

2010 – Present
DPH launched its initiative to create healthier food environments in the County of Los Angeles government and the private sector with support from the CDC.

• Communities Putting Prevention to Work
• Community Transformation Grants
• 1422 Grant, State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke
• Sodium Reduction in Communities Program (2010-Present)

2011 – County of Los Angeles Board of Supervisors adopted Board motion, Healthy Food Promotion in LA County Food Services Contracts.
Healthy Food Procurement Initiative Timeline

- **2006-09**
  - Los Angeles County Sodium Reduction Initiative
  - Salt Shocker campaign

- **2010**
  - LAC Board of Supervisors adopts vending machine nutrition policy

- **2011**
  - Los Angeles City Council adopts Good Food Purchasing Policy

- **2012**
  - Partnership with Chief Executive Office to implement County vending machine policy

- **2013**
  - Healthy Hospital Food Initiative

- **2014**
  - Regional partnership with San Diego County
  - Partnership with the Culinary Institute of America (CIA)

- **2015**
  - Partnership with New York City’s Good Choice Program

- **2016**
  - Eat Your Best Initiative

- **2017-19**
  - Launched new project with The CIA
Los Angeles County Sodium Reduction Initiative (LACSRI)

Los Angeles County (LAC) Health Profile

• Heart disease and stroke are leading causes of death
• 30% of residents have ever been diagnosed with high blood pressure
• It is estimated that less than 4% of residents can accurately identify daily sodium limits

Strategies

• Nutrition and Procurement Standards
• Menu Modifications (e.g., food preparation)
• Behavioral Economic Approaches
• Consumer Education
• *Eat Your Best* Plant-Based Initiative

Source: CHIS 2017; Dewey et al., 2018
Building the Business Case for Healthy Food Procurement

Evaluation Framework

**Approach 1:** Estimate untapped revenue
- Evaluation Activities
  - Patron intercept or web-based surveys of customers (e.g., employees, visitors).
  - Usage report or sales mix data analyses.

**Approach 2:** Understand the menu mix
- Evaluation Activities
  - Front- and back-of-house scans of the food environment.
  - Food purchase inventory analyses.
  - Menu assessments.
  - Usage report or sales mix data analyses.
  - Recipe and/or nutritional information analyses.
  - Key informant interviews with food service directors, executive chefs, procurement staff, and wellness coordinators.

**Approach 3:** Adjust the product set
- Action Activity
  - Apply the information gathered based on Approaches 1 and 2 to make iterative improvements to food purchasing and preparation practices, and overall availability of foods/meals with a healthier nutrient profile.
Long-Term Impact Evaluation Activities
Approach #1:
Estimate Potential Untapped Revenue

Usage reports or sales mix data

• Examines the volume for which a menu item or items are produced or sold during a set period of time.
Approach #1: Estimate Potential Untapped Revenue

Patron intercept of web-based survey analyses

- Benchmarks the percentage of customers eating or not eating at food service operator facilities and their nutrition-related knowledge, attitudes, beliefs, and behaviors.
Example of Survey Question Categories

- Background
- Cafeteria Purchasing Behaviors
  - Purchases regularly
  - Does not regularly purchase
- General Food Purchasing Behaviors
- Opinions about the Cafeteria
- Respondent Health Knowledge/Behaviors
- Respondent Characteristics
<table>
<thead>
<tr>
<th>Survey Category</th>
<th>Sub-Category</th>
<th>Survey Question Examples</th>
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</thead>
<tbody>
<tr>
<td>Background</td>
<td>--</td>
<td>• Which of the following best describes you? <em>(Response options: Staff, Faculty, Visitor, etc)</em></td>
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<tr>
<td>Food Purchasing Behaviors</td>
<td>--</td>
<td>• Do you regularly purchase food (including meals, snacks, and/or beverages) from &lt;institution&gt;* <em>(Response options: Yes or No)</em></td>
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<td>--</td>
<td>Regularly purchases food</td>
<td>• On average, how many times a week do you purchase items from the following stations during: a) Breakfast; b) Lunch &lt;insert photo of each station&gt; <em>(Response options: Never, 1x/week, 2x per week, 3x per week, 4x per week, 5x or more per week)</em></td>
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<td>--</td>
<td>Does not regularly purchase food</td>
<td>• What is the main reason you do not regularly buy a meal, snack, and/or beverage at &lt;institution&gt;? <em>(Response options: Variety is limited, Not enough healthy choices, Hours of operation are limited, Prices are too expensive, Other [fill in]</em>)</td>
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<tr>
<td>General Food Purchasing Behaviors</td>
<td>--</td>
<td>• Typically, when you buy a meal, how important is each of the following: a) calories it has; b) sodium it has; c) added sugar; d) how it tastes; e) getting a good price; e) that it is locally sourced; f) that it is organic <em>(Response options: 4-point likert scale)</em></td>
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<td>Survey Category</td>
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<td>-------------------------</td>
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| Opinions about <institution> | --           | • In general, how satisfied are you with the food options sold at Café Med? *(Response options: 4-point likert scale)*  
|                         |              |   • Please explain why you responded very satisfied, dissatisfied, or very dissatisfied *(Response option: fill in)* |
| Health Respondent Knowledge and Behaviors | --           | • Please fill in the blank in the following statement: “In general, an average adult should consume no more than ___ milligrams of sodium per day” *(Response option: whole number fill in)* |
| Respondent Characteristics | --           | • How do you describe yourself? *(Response options: Male, Female, Transgender, Prefer not to answer)*  
|                         |              | • What is your age? *(Response option: fill in)* |
Approach #2: Understand the Menu Mix

Usage reports or sales mix data

- Examines the volume for which a menu item or items are produced or sold during a set period of time.
Approach #2: Understand the Menu Mix

Food Purchase Inventory Analyses

- Examines the types of products and ingredients a food service operator purchases from its food distributors.
Approach #2: Understand the Menu Mix

Back-of-House Environmental Scans (Pantry Assessments)

- Captures data on the nutritional quality of ingredients used during food preparation in instances where food service operators are unable to share food purchase inventory data.
Approach #2: Understand the Menu Mix

Recipe and/or nutritional information analyses

• Examines the nutritional quality of menu items to assess the extent to which foods meet healthy nutrition standards.
Approach #3: Adjust Product Set

Example: Salt Measurement Protocol

• Food purchasing inventory
• Back-of-house environmental scans (e.g., pantry assessment, etc.)
• Recipe assessment
Salt Measurement Protocol

Step 1: Recipe Review (to understand the quantity of salt allocated by recipe)
Are recipes available?

- Yes
  - Are recipes used?
    - Yes
    - Recipes need to be re-formulated:
      - Suggest salt ratios
      - Standards of practice to support recipe use
    - Has this been implemented?
      - Yes
      - Step 2: Benchmark salt purchased and used in food production for 5 months using invoice data
      - Step 3: Examine amount of dollars spent on salt and weight purchased using invoice data (i.e., assess difference pre and 6 months post)
      - Step 4: Ensure implementation protocols in place, understanding of recipe changes, recipe preparation oversight, salt used in production measured for total period
      - [implementation] reduce salt in preparation by X% (thresholds to be determined on case by case basis)
    - No
    - Is salt measured in recipes?
      - Yes
      - Find out % of food products that have recipes
      - Understand how cooks access recipes (what is the standard operating procedure or SOP)
      - [verify] Assess if measurement process is facilitated appropriately and is institution capable of measuring change (e.g., scale/measurement tool availability, consistency of salt measures within recipe, types of salt used)
      - No
  - No

- No
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    - No

[evaluation] Follow-up on measurements and assess differences yearly:
- Recipe Review
  - Salt ratios
  - Standards of practice
- Food Purchasing Invoice Data
  - Dollars spent
  - Weight purchased
Lessons Learned To Date
### Barriers & Facilitators

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<th>Facilitators</th>
<th>Barriers</th>
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<td>• Institutional readiness to operationalize new approaches.</td>
<td>• Differences among targeted venue’s internal administrative processes, contracts divisions, and unique needs and concerns.</td>
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<td>• Strong partnerships with key stakeholders on evaluation and monitoring (e.g. vendors, contract monitors).</td>
<td>• Variation in level interest level and understanding of nutrition concepts among different stakeholders.</td>
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<td>• Vendor capacity and willingness to share key data sources (e.g., nutritional analysis, sales data).</td>
<td>• Concerns about cost, availability and acceptability of healthier food options.</td>
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<td>• Patron receptivity to changes to food environment.</td>
<td>• Challenges with data collection, data synthesis, and data analysis efforts.</td>
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## Usage Reports or Sales Mix Data

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<th>Challenges</th>
<th>Solutions</th>
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<tr>
<td>Food service operators are often reluctant to share these types of</td>
<td>Showcase business case success stories using examples of how other DPH partners have used this data to improve their business practices for health; work with a credible food industry consultant to reinforce that this data is necessary for making informed business decisions.</td>
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<td>proprietary information due to fears of being regulated and mandated to</td>
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<td>achieve certain standards.</td>
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<td>Food service operators often do not understand DPH’s data requests.</td>
<td>Use the correct terminology when asking institutions for such data (e.g., ask for “sales mix” instead of “sales” data)</td>
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**Usage Reports or Sales Mix Data [CONT’D]**

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<td>Food service operators may not have collected the data in a way that is conducive to analyses and/or that provide data that are in difficult to understand formats (e.g., total sales are aggregated rather than itemized, making it difficult for DPH staff to identify top-selling items).</td>
<td>Work with food service operators to program point-of-sale machines to collect itemized sales data (e.g., have a button on the cash register that distinguishes between healthy and unhealthy meals).</td>
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Patron Intercept or Web-Based Surveys

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<tr>
<td>Administering patron surveys and analyzing corresponding data can be</td>
<td>Disseminate web-based survey links through existing channels (e.g. list-servs) and encourage partners to promote the survey to their institutional bases.</td>
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<td>time and staff intensive, which makes it difficult for DPH to help</td>
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<tr>
<td>institutional food industry partners to make informed decisions in real-</td>
<td></td>
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<tr>
<td>time.</td>
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<tr>
<td>Survey fatigue or general disinterest among prospective respondents in</td>
<td>Work with institutional partners to provide financial or other incentives (e.g., free meal) to survey participants.</td>
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<td>taking the survey results in low participation rates, which may introduce</td>
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<td>survey bias.</td>
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Food Purchase Inventory Analyses

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<td>Food service operators are often reluctant to share these types of proprietary information due to fears of being regulated and mandated to achieve certain standards.</td>
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# Back of House Environmental Scans

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<tr>
<td>Environmental scans are DPH staff and time intensive, and lead to delays in</td>
<td>Create a simplified self-assessment environmental scan tools that</td>
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<tr>
<td>providing partners with results which could help them make informed</td>
<td>institutional partners can complete themselves.</td>
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<tr>
<td>decisions.</td>
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## Recipe and/or Nutritional Information Analysis

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<td>Some food service operators are unable to carry out nutritional analyses of their menu items because they either do not have or do not follow recipes.</td>
<td>DPH should continue to work with food service partners to develop recipes and to implement standardization protocols.</td>
</tr>
<tr>
<td>Nutritional information is difficult for institutions to update given that menus and product sets are constantly changing.</td>
<td>DPH should work with food service partners to implement timely reporting protocols to capture changes made to the nutritional profile of the food environment.</td>
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THANK YOU!

QUESTIONS?

Contact: brrobles@ph.lacounty.gov