Applying a Mixed-Methods Evaluation Framework to Monitor Implementation of Healthy Food Procurement Practices in Los Angeles County

NOPREN Food Service Guidelines Workgroup Meeting
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Overview

• Background & brief overview of healthy food procurement efforts in Los Angeles County.
• Review application of a mixed-methods evaluation framework.
• Present a few example of findings.
Los Angeles County

- Large urban area (4,058 sq. miles) with 88 cities
- Densely populated (2,419 ppl/sq. mile)
- Diverse:
  - 48% Latino, 14% Asian, 9% Black
  - 45% of adults not born in the United States
- Poor health:
  - 24% of adults obese
  - 28% adults ever diagnosed with hypertension
  - 25% of adults ever diagnosed with high blood cholesterol
- Healthcare:
  - 24% adults report difficulty in access to healthcare
  - 9% adults report trying to get mental health care in previous year

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.
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
24 Partners
Estimated 4.8 M People Reached

Hospitals | Universities | Government | Distributive Meals | Schools Districts
--- | --- | --- | --- | ---
9 | 4 | 6 | 3 | 2

DPH Technical Assistance and Resources

- Provide evaluation technical assistance from a business case standpoint (e.g., benchmarking untapped revenue, understanding menu mix, adjusting product set)
- Nutrition Standards and Healthy Food Procurement Policies
- Toolkits: Nutrition Standards for Prepared Food, Vending Machines, Modernizing Salad Bar, & Protein Flip
- Eat Your Best materials including recipes, cookbooks, and signage
- Implementing Reduction Strategies for Specific Nutrients of Concern, Such as Sodium
- Implementation trainings
DPH’s 5-Phase Process Framework
Operationalizing Nutrition Standards & Healthy Procurement Practices

Needs Assessment  Stakeholder Education & Strategy Development  Adoption  Implementation  Adherence & Quality Improvement

Program Evaluation (Monitoring)


Implementation of Healthy Food Procurement in Los Angeles County: Role of Evaluation

DPH Partners Implement Nutrition Standards and Other Healthy Food Procurement Practices

Monitoring
Provide Technical Assistance
Building the Business Case for Healthy Food Procurement

**Evaluation Activities**

**Approach 1:** Estimate net revenue
- Restaurant or web-based surveys of customers (e.g., employees, visitors).
- Revenue or sales mix data analyses.

**Approach 2:** Understand the menu mix
- Front- and back-of-house scans of the food environment.
- Food purchase inventory analyses.
- Menu assessments.
- Revenue 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
- Apply the information gathered based on Approaches 1 and 2 to make iterative improvements to food purchasing and preparation practices, and overall availability of food meals with a healthier nutrient profile.
Some evaluation activities may overlap in information captured, so to provide food service operators with more flexibility to share pertinent data with DPH.

Example:

Pantry Assessment

Food Purchase Inventory

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<th>Vendor Name</th>
<th>SLRC</th>
<th>Fl/XS</th>
<th>Brand</th>
<th>PC Description</th>
<th>HPV</th>
<th>GTIB</th>
<th>LOC</th>
<th>CAT</th>
<th>GT Description</th>
<th>CWGT</th>
<th>Net Weight</th>
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Evaluation Activities:

Estimate Untapped Revenue (Approach 1)

Patron intercept or web-based surveys of customers
- Benchmarks the percentage of customers eating or not eating at food service operator facilities and their nutrition-related knowledge, attitudes, beliefs, and behaviors.

Usage report or sales mix data analyses
- Examines the volume for which a menu item or items are produced or sold during a set period of time. Such analyses inform strategic menu design by considering the popularity and profitability of each menu.
**Evaluation Activities:**

**Understand the Menu Mix** *(Approach 2)*

**Front-of-house environmental scans**
- Assess the retail food environment to identify opportunities to make healthy eating the easy choice for customers.
- **Tools/approaches:** environmental scan checklists, photo documentation.

**Back-of-house environmental scans**
- Assess the types of products and ingredients procured by food service staff and general food preparation practices. (e.g., food preparation checklist assessment, visual observations, pantry assessments using photo documentation).
- **Tools/approaches:** food preparation checklist assessment, visual observations, pantry assessments using photo documentation.

*Menu mix=a menu that strategically varies the type and cost of items to attract diverse customer bases and generate profit margins across the menu as a whole*

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**Evaluation Activities:**

**Understand the Menu Mix [CONT’D]**

**Food purchase inventory analyses**
- Examines the types of products and ingredients a food service operator purchases from its food distributors. This information can help reduce the number of dollars spent on unhealthy ingredients or products.
- **Tools/approaches:** Require food service operators to have access to and share their food purchasing records.

**Menu assessments**
- Tracks the types of meals (e.g., number and type of entrees and sides, etc.) sold or served to customers to identify opportunities to diversify menu offerings, including adding healthier meal options on menus.
- **Tools/approaches:** Requires food service operators to share their menus (e.g., menu cycles during a set period).
Evaluation Activities: 
Understand the Menu Mix [CONT’D]

Recipe and/or nutritional information analyses
- Examines the nutritional quality of menu items to assess the extent to which foods meet healthy nutrition standards (e.g., quantifies the number of healthy and unhealthy items offered on a menu).
- **Tools/approaches:** Requires food service operators to have access to and share nutritional information data.

Key informant interviews
- Uncovers missed opportunities related to the menu composition, as well as opportunities and barriers related to improving the nutritional quality of foods sold, served, and/or procured.
- **Tools/approaches:** Internally developed semi-structured interview guides, organized by pertinent domains (e.g., current food procurement practices and procedures, perceived barriers and/or receptivity to healthy food procurement),

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Adjust the Product Set (Approach 3)

1. **Set up initial meeting with institutional partners to discuss the need to bridge public health goals with business needs and considerations; provide an overview of DPH technical assistance; and discuss institutional needs.**
2. **Monitor food environments using HFP framework**
3. **Analyze qualitative and/or quantitative data**
4. **Report key findings to institutional partners**
5. **Leverage key data findings to dialogue with partners and identify opportunities to improve the nutritional quality of foods they serve while not hurting food service operators’ business operators and profit margins.**
6. **Provide partners with technical assistance to help them improve their institutions’ food environments, food procurement practices, and/or food preparation practices.**
7. **On an ongoing basis (~6 months), conduct quantitative and qualitative HFP data collection activities and report results back to institution**
PROGRAM MONITORING HIGHLIGHTS

Los Angeles County Dept. of Public Health Partnership with 1 private hospital

Includes standards on:
- Nutritional quality of ingredients, packaged snacks and beverages
- Nutritional quality of entrees and sides sold/served
- Access to free, fresh water
- Behavioral economic practices (e.g., pricing, placement, promotion)
AIM 1
Estimating Untapped Revenue

Patron Surveys: IN PROGRESS

• Cross-sectional web-based survey administered via Survey Monkey using two approaches:
  1. **Web link shared**: to be emailed through existing listservs
  2. **In-person**: to be conducted Feb 28th-30th
     - Staff intercepted at each cafeteria entrance using QR code recruitment sheet

• To take respondents ~5 minutes to complete
Key Steps for Survey Development & Dissemination

1. Share survey with partners
2. Iterative refinements based on partner feedback
3. Program into Survey Monkey
4. Obtain final survey link and QR code

Example - Paper Based Format

SECTION 2: GENERAL FOOD PURCHASING BEHAVIORS

2.1 Typically, when you buy a beverage, what is the most important to you? Please rank your top 3 choices (prioritize each respondent to indicate top 3 priorities)

- The amount of calories it has
- The amount of sodium it has
- The amount of added sugar it has
- The amount of fat it has
- The amount of fiber it has
- The amount of protein it has
- How it tastes
- Getting your “sugar” fix
- Getting a good price/value
- That it is locally sourced
- That it is organic
- That it is made fresh daily
- Other (if other, please specify other factors that are important to you in your food and/or beverage selection)

2.2 Typically, when you buy a beverage, what is the most important to you? Please rank your top 3 choices (prioritize each respondent to indicate top 3 priorities)

- The amount of calories it has
- The amount of sodium it has
- The amount of added sugar it has
- The amount of fat it has
- How it tastes
- Getting your “sugar” fix
- Getting a good price/value
- That it is locally sourced
- That it is organic
- That it is made fresh daily
- Other (if other, please specify other factors that are important to you in your food and/or beverage selection)

What do you usually purchase food from the convenience store, coffee shop, or fast-food chain? (Check one box only)

- Yes
- No

If you answered yes, please continue with SECTION 2, Question 23.

If you answered no, please continue with SECTION 2, Question 24.
Survey Category | Sub-Category | Survey Question Examples
--- | --- | ---
Background | -- | • Which of the following best describes you? (Response options: Staff, Faculty, Visitor, etc)

Food Purchasing Behaviors | -- | • Do you regularly purchase food (including meals, snacks, and/or beverages) from <institution> (Response options: Yes or No)

-- | Regularly purchases food | • On average, how many times a week do you purchase items from the following stations during: a) Breakfast; b) Lunch <insert photo of each station> (Response options: Never, 1x/week, 2x per week, 3x per week, 4x per week, 5x or more per week)

-- | Does not regularly purchase food | • What is the main reason you do not regularly buy a meal, snack, and/or beverage at <institution>? (Response options: Variety is limited, Not enough healthy choices, Hours of operation are limited, Prices are too expensive, Other [fill in])

General Food Purchasing Behaviors | -- | • 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 (Response options: 4-point likert scale)
AIM 2
Understand the Menu Mix

FRONT-OF-HOUSE ENVIRONMENTAL SCAN RESULTS
Adherence with nutrition standards outlined in private hospital’s policy (baseline vs follow-up):

• 31% increase in percentage of packaged beverages meeting healthy standards
  – 15% decrease in average calories (102 vs. 87 calories)
  – 11% decrease in average mg of sodium (71mg vs. 63mg)
  – 86% decrease in average g of sugar (21g vs 3g)

• 27% decrease in percentage of packaged snacks meeting healthy standards
  – 26% decrease in average calories (225 vs. 167 calories)
  – 1% decrease in average mg of sodium (217mg vs. 215mg)
  – 15% decrease in average g of sugar (13g vs 11g)

• Increase in fresh fruit at checkout
  – 0 at baseline, 3 fresh fruit options at follow-up

• 20% increase in availability of fresh salad bar options (i.e., fresh, not canned)

• Fresh, cold tap water offered at no cost
Adherence with nutrition standards outlined in private hospital’s policy (baseline vs follow-up):

- 1.3% increase in percentage of pantry items meeting healthy standards
  - 11% decrease in average calories (93 vs. 81 calories)
  - 20% decrease in average mg of sodium (287mg vs. 229mg)
  - No change in average g of sugar (6g vs 6g)

- Canned tomato and beans products, as well as soy sauce, were replaced with lower sodium alternatives.
RECIPE/NUTRITIONAL ANALYSES RESULTS

- New wrap products introduced < 600 mg sodium per serving
- New granary salads introduced < 50 mg sodium per serving

KEY INFORMANT INTERVIEWS

- Barriers to HFP implementation examples:
  - Food service operator not vetting snack products before purchase with contract manager
- Facilitators to HFP implementation examples:
  - Executive leadership buy-in for promoting health
  - Financial penalties in contract if food service operator does not meet standards outlined in executed contract
  - DPH evaluation technical assistance
QUESTIONS?