ADAPTING DIETARY GUIDELINES TO CLIENT-CENTERED PREFERENCES AT THE DOWNTOWN EVENING SOUP KITCHEN (DESK)

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BACKGROUND
The Downtown Evening Soup Kitchen (DESK) in New Haven, Connecticut exists to serve individuals who are food insecure, through the provision of meals. A majority of DESK’s food is sourced through donations and federal programs. A significant portion of these donations are from Yale University Dining, where trays of food from the dining hall are delivered multiple times a week.

Connecticut faces a 6.4 percent prevalence of households with low food security, exceeding the 5.2 percent national average (Coleman-Jensen, 2017). Meals served at soup kitchens tend to contain high levels of fat and low levels of fiber, vitamins, and minerals (Lyles et al., 2013; Sisson, 2011), contributing to malnutrition, obesity, high blood pressure, and many other chronic conditions (Sisson, 2011). Currently, there are no national guidelines to regulate the nutrition of meals served specifically at these institutions, allowing for the continued distribution of meals with insufficient nutritional value (Koh et al., 2015; Kourgialis et al., 2001).

OBJECTIVES
1) Conduct a nutritional assessment of the dinners served by DESK
2) Establish effective principles for the DESK menu based on the 2015-2020 Dietary Guidelines for Americans
3) Incorporate client food preferences in menu adaptations

METHODS

Qualitative Data:
- Five 20-minute semi-structured focus groups with DESK clients, consisting of 5 clients each (a total of 25 clients)
  - Convenience sample, with recruitment conducted immediately prior to the focus group during DESK’s evening meal.
  - Questions centered around foods clients liked and disliked, their reactions to new foods, diet-related health concerns, and their awareness of the suggestion box.
- Two key-informant, semi-structured interviews with DESK volunteers, each lasting 20-25 minutes
  - One interview in-person, one phone
  - Questions focused on their experiences volunteering at DESK, the reaction of clients to new foods, foods that clients preferred, and any suggestions they had with regards to improving nutrition and overall agency of clients

Quantitative Data:
- Nutritional analysis of 6 evening meals at DESK
  - Shadowed the main chef at DESK, recording the type and quantity of all foods used in recipes, the preparation methods, and serving methods
  - Assumed that each individual obtained about half of their daily caloric intake from DESK’s evening meal.
  - Used the online nutrition software, Cronometer to calculate micro and macronutrient content of each meal
  - Calculated the percent estimated average requirement (EAR) that each meal would provide to a 195-pound man aged 31-50 and a 166-pound woman aged 31-50.

FOCUS GROUP RECOMMENDATIONS
A more centralized suggestion box
Condiment options, such as including salt
Juice of any variety
Improved communication with Yale Dining and Kitchen to Kitchen

Increased portion sizes upon request
Various dressing options for salads
RESULTS

NUTRITION RECOMMENDATIONS

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
<th>Unit</th>
<th>%DV</th>
<th>% EAR males</th>
<th>% EAR females</th>
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<tbody>
<tr>
<td>Energy</td>
<td>739.31</td>
<td>Calories</td>
<td>34.96</td>
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<tr>
<td>Vitamin A</td>
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<td>283.71</td>
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<tr>
<td>Vitamin C</td>
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<tr>
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<td>mg</td>
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<tr>
<td>Iron</td>
<td>5.18</td>
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<tr>
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<tr>
<td>Carbs</td>
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<td>g</td>
<td>38.78</td>
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<tr>
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<td>21.56</td>
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<tr>
<td>Sugars</td>
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<td>-</td>
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<tr>
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<td>g</td>
<td>38.04</td>
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<tr>
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<td>-</td>
<td>-</td>
</tr>
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<td>g</td>
<td>30.45</td>
<td>68.02%</td>
<td>79.21%</td>
</tr>
</tbody>
</table>

Table 1. Nutrition analysis of six evening meals at DESK.

LIMITATIONS

- Short time frame for focus groups
- $10 gift card for 20 minutes of participation may have been coercive
- Social desirability in participant responses altering answers they provided to questions
- Some ingredients not properly measured and were thus estimated
- Nutritional information provided for Yale Dining meals was not as comprehensive as the information generated from meals prepared fully at DESK

ACKNOWLEDGMENTS

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REFERENCES


RESOURCES: CRONOMETER SOFTWARE (HTTPS://CRONOMETER.COM/); 2015-2020 DIETARY GUIDELINES FOR AMERICANS (HTTPS://HEALTH.GOV/DIETARYGUIDELINES/2015/GUIDELINES/)