Changing Menus, Improving Health
Lessons from Healthy Restaurant Initiative in the South Bronx

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Background & Rationale

• In the South Bronx, 76% of adults are obese/overweight and 19% have diabetes

• 21% of adults ate no fruits or vegetables the previous day

• There are few options for affordable, healthy restaurant meals
Background & Rationale

To address this, Bronx Health REACH developed a healthy restaurant initiative with South Bronx Overall Economic Development Corporation (SoBRO) and the United Business Cooperative (UBC)
Objectives

• To reduce consumption of unhealthy foods and beverages amongst South Bronx residents by increasing the availability of healthier menu items at South Bronx restaurants

• To reduce racial and ethnic health disparities among African American/Black and Latino residents of the South Bronx
Program Design

• Culturally & linguistically appropriate chef training program

• Technical assistance to restaurants on how to procure, create, and market one healthier menu item & The Bronx Salad

• Promotion of healthier menu items in the community

• September 2015 – August 2018
Setting & Participants

- Restaurant owners and customers from 20 family and immigrant owned restaurants, supermarkets, and small grocers in the South Bronx with high percentage of African American/Black and Latino customers

- Restaurants/eateries selected based on proximity to partners
Data Collection & Analysis

- Pre/post surveys administered in English and Spanish to restaurant owners and customers
- 10 customers per restaurant were surveyed; at both pre and post, a different cohort of customers were surveyed
- Surveys adapted from the USDA Diet and Health Knowledge Survey and the Intervention Exposure Assessment Survey
- Used descriptive analysis
Outcomes & Measures

• Aspects of the intervention that had been implemented and the degree of fidelity to the model, i.e. signage, items promoted (The Bronx Salad & healthy menu items)
• Dosage of the intervention to customers
• Feasibility/acceptability of the intervention from the restaurant owners’ perspective
• Improvements in knowledge and perception of healthy eating among restaurant owners and their customers
• Any impact the intervention may have had on restaurant profitability/sales
**Results: Owner Surveys**

*n=18 from 20 restaurants; 2 restaurants were chains*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pre-Test (n=18)</th>
<th>Post-Test (n=18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated healthy section on menu</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Proportion of customers sometimes or often ordering healthy entrees and side dishes</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Customers interested in healthy food</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Importance of portion size for customers</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Strongly agree that owners have a social responsibility to serve healthy food</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Perception that cost of ingredients is a major barrier to serving healthy menu items</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Serve Bronx Salad</td>
<td>n/a</td>
<td>3, although 5 sold it intermittently</td>
</tr>
<tr>
<td>Serve 1 new healthy menu item</td>
<td>n/a</td>
<td>13</td>
</tr>
</tbody>
</table>
Results: All Customer Surveys

• n=190; 19 restaurants completed pre/post surveys; 1 closed before post-test

• No substantial evidence of customer behavior change as a result of the intervention; however

• Significant ↑ in proportion of customers reporting that they substituted a vegetable side for a less healthy option from pre-test (n=129) to post-test (n=137; p=<0.001)
Results: Customers from 3 restaurants that sold The Bronx Salad & healthy menu item

- 52% reported the restaurant had become healthier over time
- 100% (n=12) of customers who tried The Bronx Salad liked it; 67% (n=12) would often order it; and 92% (n=11) would recommend it to a friend
Challenges

• Despite partnerships with SoBRO and the UBC, lack of trust between restaurant owners & the researchers continued to be a major challenge

• Many of the restaurants needed assistance with their business operations and food handling procedures before they were able to participate in the intervention

• Owners were unwilling to use digital or paper-based point of sale systems to track sales of healthier menu items, because it was out of their normal business model
Discussion

• The Bronx Salad was better received in schools, community groups, and churches
• 2,800 samples served at community events and 35 schools grew ingredients
Limitations

• Lack of program implementation in participating restaurants

• Baseline and follow-up surveys with owners & customers were self-reported and may have resulted in response bias; customer surveys were taken by cross-sectional convenience samples and therefore we were unable to track changes among the same group of individuals over time

• Sample size of restaurant owners surveyed was small by design, because the initiative was a resource-intensive demonstration project
Recommendations for Future Work

• Work more intensively with a smaller number of restaurants that are interested in selling healthier meals

• Partner with organizations that have the capacity to consistently support the program

• Conduct a qualitative evaluation to understand challenges & barriers to program implementation and inform the quantitative findings
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