

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

Emma Rodgers, MS; Charmaine Ruddock, MS; Mubashir Mohi-ud-Din, MPH,
Bronx Health REACH / Institute for Family Health
Margaret Paul, PhD MS, Sue Kaplan, JD, NYU School of Medicine, Department
of Population Health



Funded by the CDC REACH Initiative

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)

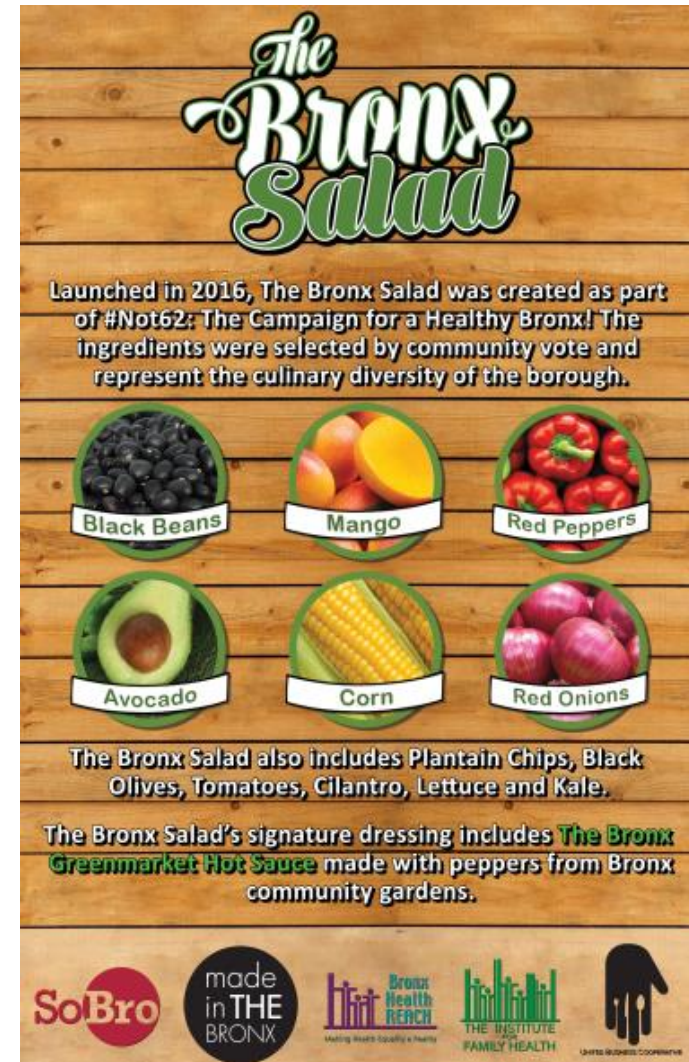


Objectives

- 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

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

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 \uparrow 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

Contact Information

Emma Rodgers

Bronx Health REACH

Institute for Family Health

erodgers@institute.org

(212) 633-0800 x1249