

### ABSTRACT

**Introduction:** The Neighborhood Diabetes Education Program aimed to address the need to increase health literacy and nutrition education among patients with inadequate access to care, in order to help mitigate the increasing incidence of diabetes arising from the increase of obesity in vulnerable communities like Washington Heights.

**Methodology:** A 12-week program was designed and implemented among patients recruited from the STAR Senior Center in Washington Heights. Educational tools, including label reading, food diaries, translated reading material, small group classes, and course surveys were used for health teaching. The contribution of physical activity, particularly brisk walking, was also explored. A retrospective chart was conducted to compare the changes in BMI of the participants.

**Results:** Participants reported an increase in confidence in nutrition and food label knowledge, healthy eating habits, and the importance of physical activity in diabetes prevention. Surveys show more positive behavioral changes in nutritious and health-conscious food consumption. Comparison data showed a decrease in BMI for 30 percent of participants.

**Conclusions:** Participants have made strides towards improving their own health and the health of their community. Interventions to reduce diabetes risk should target patient education in healthy food consumption and weight reduction.

### BACKGROUND

- Health disparities that exist in the communities of minorities have increased the incidence of diabetes. This preventable disease often times leads to premature death since people with diabetes are more likely to have poorer health outcomes, suffering from heart disease, stroke, or amputations.
- According to the New York City Health Community health profile 2015, 22 percent of adults in Washington Heights are obese, compared to 16 percent in the rest of Manhattan. Notably, 10 percent of adults in Washington Heights live with diabetes, compared to 7 percent in Manhattan.
- Community-driven initiatives are important in the efforts to lessen the incidence of diabetes in the vulnerable communities.

### OBJECTIVES

- To increase the health literacy and nutrition education among participants
- To utilize community resources to improve the health of participants by decreasing their weight, and ultimately their BMI.

### METHODS

**Educational tools/Health Teaching** focused on the following:

- Label reading
- Food journaling
- Small group classes
- Course surveys
- Physical Activity



Figure 1: STAR Senior Center members engage in small group classes.

### RESULTS

Participant	Week 1	Week 12
1	161	158
2	180	186
3	195	207
4	145	n/a
5	204	207
6	168	159
7	175	178
8	184	183
9	195	206
10	156	159
11	145	137
12	180	182
13	185	193
14	210	211
15	180	180

Figure 2: Table showing the changes in weight (in lbs) among participants over the 12-week course.

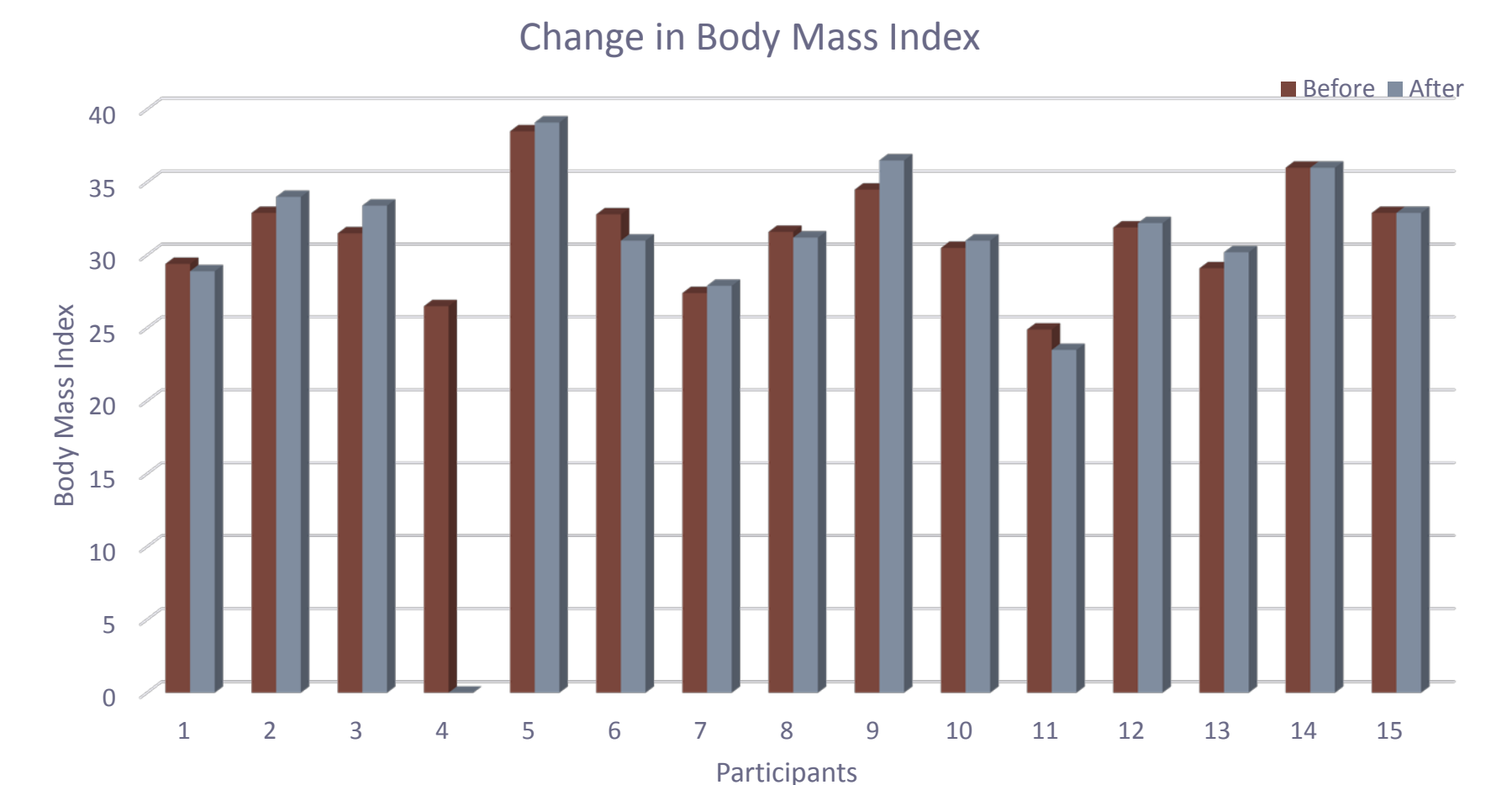


Figure 3: Graph showing the overall change in BMI of participants over the 12-week course.

### RESULTS

- Although the goal was accomplish, that is 30% of the participants had a decrease in the BMI, another 30% had an increase in the BMI, one participant dropped out, remaining participants had no positive or negative results.
- Many participants suffered from other chronic diagnoses and this complicated compliance, for instance one participant was undergoing Magnetic Resonance Imaging to rule out brain tumor.

### CONCLUSIONS

- Participants reported an increase in confidence in nutrition and food label knowledge, healthy eating habits, and the importance of physical activity in diabetes prevention.
- Positive behavioral changes in nutritious and health-conscious food consumption among participants.
- Active lifestyle changes were made by participants to improve their quality of life as shown by the decrease in the weight and BMI of 30 percent of participants.
- Limitations included the short duration of the study, scheduling limits, and patient compliance.