



NEW HAVEN FARMS

Farm-Based Wellness Program

2019 EVALUATION REPORT



Special thanks to the New Haven Farms' Farm-Based Wellness Program participants for their input and support towards program improvement and for sharing their experiences. Thanks to the New Haven Farms staff, data collection team, and Community Health Ambassadors for their dedication to this important program and interest in continual improvement.

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EXECUTIVE SUMMARY

The Community Alliance for Research and Engagement (CARE) conducted the evaluation of the New Haven Farms (NHF) 2019 Farm-Based Wellness Program (FBWP). The 19-week FBWP is a weekly, in-person program for New Haven residents who are low-income and at high risk for—or often diagnosed with—diet-related chronic diseases, including diabetes and hypertension. The 16-week evaluation of the FBWP (excluding orientation and celebration sessions) assesses effectiveness of the program with a focus on health behaviors and behavior change, including healthy eating and exercise as well as application of learnings such as healthy cooking and exercise. As overweight and obesity is a primary risk factor for diabetes and chronic conditions, outcomes included weight loss towards healthy weight. The evaluation utilized a pre- and post-survey, weekly data tracking, and focus groups to evaluate the effectiveness of the FBWP and participant experiences. The evaluation sought to explore participant experiences, including unanticipated impacts on individuals, family, and community. Additionally, through surveys and focus groups, the evaluation captured information on potential areas for program improvement. Key findings are summarized below and are detailed in the full report that follows.

- Of the 41 participants, the majority were Black/African American and Hispanic women who reside in New Haven. The vast majority of participants were living at or below 200% FPL or lower.
- While the majority of participants were referred by a healthcare professional to the FBWP, several participants reported that they were encouraged to attend by friends or family or NHF staff. Most were told they had diabetes or pre-diabetes.
- On average, participants attended 8 of the 16 sessions. 49% (n=21) attended fewer than 8 sessions. 58% (n=24) completed the pre/post survey. Overall, retention rates were higher among women, those who live alone, and those with pre-diabetes.
- Respondents strongly valued the supportive environment fostered by the NHF staff, reporting they felt they made strong connections during the program.
- Participants positively reviewed their hands-on experiences in the FBWP. They enjoyed working on the farm and weekly meditation and the exercise activities. The recipes are well-matched to the program and the audience, as respondents felt the recipes were both culturally appropriate and helpful in using the vegetables they received. Almost all respondents agreed that their views of gardening and growing their own food changed after participating in the program. They genuinely enjoyed the program, citing the Zumba classes and cooking demonstrations as highlights.
- Of those that attended the Saturday program, the majority reported that they enjoyed these sessions and that the Saturday class helped them accomplish their goals.
- As a result of the programming and supportive environment, participants indicated that they had improved their own eating habits as well as their families' eating habits since beginning the program. They used the cooking techniques taught in the program in their daily life, and they planned to exercise and meditate outside of class. Respondents felt that the weekly weigh-ins

provided motivation for change, as did exposure to new recipes, ingredients, and cooking techniques.

- These improvements to health behavior impacted health behavior outcomes. An increase in fruit and vegetable consumption was seen at each farm with an average of 1.27 servings per day increase in fruit and vegetable consumption across all participants. [Note: Food models were used to indicate the size of a serving when collecting data on fruit and vegetable consumption at the end of the program, but were not used at baseline. This may have affected results.] Participants also reported a reduction in sugar sweetened beverages. By end-of-program survey, more participants (45%) reported 150 minutes or more of exercise the prior week compared to 23% at baseline.
- Food provided by NHF assisted with financial burden: While on average no notable change was seen in food security status, all participants reported that the food provided by NHF assisted with the financial burden of purchasing food.
- Ultimately, the FBWP helped participants to lose weight. On average, participants with baseline and end-of-program data evidenced significant weight loss. Participants lost an average of 4.29 lbs (SD= 5.87) by the end of the program.

A full report follows, including recommendations for next year's program.

Recommendations

RECRUITMENT

TIMING: Many participants did not start the program in Week 1, with new participants joining well into the program. Missing the initial meetings may impact behavior and health related changes. Obviously, having participants start the program in the first week is the best solution. Otherwise, ensure that participants are brought fully up to speed – perhaps through make-up sessions.

SOURCE: Referrals by health clinics, especially Fair Haven Community Health Care, are a continued asset. For recruitment, deeper partnerships with other health care providers and clinics may increase referrals and participation. CHWs and those conducting health screenings may serve as another reliable resource. Multiple organizations employ CHWs and CHW-type of staff to which NHF staff could connect. (CARE can provide a list.) Another good recruitment strategy includes encouragement from friends and family. Contacting former participants to encourage them to recommend the program to their friends and family members may also support recruitment. With 22 (92%) of participants expressing interest in helping to recruit other community members to join, the current cohort is a good avenue for future recruitment. As in past year, flyers were not identified as the source of recruitment although it may have improved familiarity with the program.

SIZE: Participants expressed an interest in more participants at the program. With several participants expressing an interest in continued involvement, they would be a good resource for recruitment.

CLARITY: Ensure that all referral sources make it clear that the program is free and includes free produce to take home each week.

ATTENDANCE AND RETENTION

LOSS TO FOLLOW-UP: 49% of participants (n=21) attended less than 8 sessions. Ways to increase attendance should be explored. With only 59% of participants (n=24) completing pre/post surveys, results are limited. A study of those loss-to-follow up may inform future retention efforts. A Barrier Analysis may identify the primary issues. Participants still involved in the program but unable to attend the last session could respond to the survey at another time.

IMPLEMENTING CHANGE

CONTINUE TO GROW: Several participants asked for additional sessions on other days or longer sessions. While this would require additional staff time, volunteers, and resources, current participants expressed interest in being educators themselves, sharing what they learned with others in a similar way. Leveraging this enthusiasm and peer resource for growing the program could be considered.

CONTINUE TO REACH OTHERS: Participants were interested in inviting friends and significant others to the program. This could increase recruitment but also get family buy-in for healthy behavior change.

CONTINUE TO ADDRESS TRANSPORTATION: Participants noted lack of consistent transportation as a barrier to participation. Suggestions from participants include setting up car-pools or a shuttle; this may be an option for the Phoenix Press Farms class as many come from the local neighborhood.

CONTINUE TO ADAPT: Three of the 41 participants had attended the FBWP previously. One expressed how much she liked the changes this year and wanted to see what next year would bring. The Saturday program's Zumba class may be a viable option for increasing exercise opportunities during (or before or after) weekday sessions. Participants reported enjoying this new component of the program.

DATA COLLECTION

VALIDITY: To ensure clean and valid data collection, steps could be taken to enhance the data collection process. Some survey data contained errors and were unusable for some analyses. In the future an off-line Qualtrics survey with imbedded parameters could be used to collect data and limit unreliable data. This process would also reduce time needed for data entry. In addition, the Qualtrics data could be reviewed the night of data collection or the day after to identify errors and make corrections in a timely manner. To collect accurate physical activity data, a tracker could be considered. Obtaining information on referral sources through the screening questionnaire conducted by NHF staff would increase validity of the data related to referrals. NHF staff could document how residents heard about the program as well as referral source.

CONSIDER MEASURES USED: The use of the detailed dietary intake items should be reconsidered. The short-form provides data for the evaluation and could be continued for year-to-year consistency and reporting. Concerns were raised about administration and accuracy of the detailed dietary intake items. Consider consistently using food models as examples for serving size during data collection. While dietary intake is a difficult behavior to measure, other options may be explored. Similarly, the current pre/post survey question on exercise should be reconsidered to ensure it is capturing the physical activity intended. Physical activity may be under-reported by the current item and may also be misunderstood. Changes in this item may increase usable data.

ADDITIONAL DATA SOURCES: The phone screening interviews of FBWP applicants, prior to starting the program, offers an opportunity to collect information on barriers to participating in the program. Collecting data on reasons residents do not complete the application or opt out of the program could inform future adaptations (e.g., the time conflicts with work hours, they did not fully understand the commitment).

CONSISTENCY: Weekly exercise and food journal data were not collected consistently. Ensuring collection from all participants would enhance data quality and reporting. It is imperative that surveys be administered similarly at baseline and end-of-program to obtain valid results.

TRAINING: Additional training for data collectors could improve the quality of the data. Data Collectors should understand both the importance of rigorous data collection and the purpose of each item.

INTRODUCTION

New Haven Farms

New Haven Farms (NHF) is a 501(c)(3) non-profit organization established in 2012 to promote health and community development through urban agriculture. NHF transforms vacant lots located in under resourced neighborhoods of New Haven into productive farm sites. These farm sites provide fresh and organically grown produce and wellness education to low-income neighborhood residents, especially to those with diet-related chronic diseases (i.e., diabetes, hypertension, obesity).

Program Overview

The Farm-Based Wellness Program (FBWP) at NHF is a weekly, in-person program for New Haven residents who are low-income and at high risk for -- or often diagnosed with -- diet-related chronic diseases, including diabetes and hypertension. The program is modeled after the Centers for Disease Control (CDC) National Diabetes Prevention Program (<https://www.newhavenfarmsct.org/our-programs/farm-based-wellness-program/for-healthcare-providers>), a lifestyle change intervention for individuals who are pre-diabetic or diabetic. At NHF, trained coaches and educators provide nutrition and cooking education, exercise classes, practice with gardening, and personal support. Participants receive weekly shares of free fruits and vegetables, along with recipes to try at home. The program is offered in English and in Spanish, with options to attend weekday or make-up weekend sessions on Saturday. The program is 19 weeks, which includes an orientation and final celebration. Although there is a suggested donation and donation box, there is no cost to participate.

For the 2019 season, the weekday sessions were offered Tuesdays at Phoenix Press Farm in Fair Haven in Spanish and on Thursdays at the Ward Street Farm in Hill North in English. This was the second year the FBWP offered separate Spanish-only and English-only programs (previously a bi-lingual program was offered). This was the third year the FBWP was offered as a 19-week program at the Ward Street Farm. The program ran from end of May to early October 2019.

Evaluation Goals

The 16-week evaluation of the FBWP (excluding orientation and celebration sessions) assesses effectiveness of the program with a focus on health behaviors and behavior change, including healthy eating and exercise as well as application of learnings such as healthy cooking, which may impact the individual as well as the family. As overweight and obesity is a primary risk factor for diabetes and chronic conditions, outcomes included weight loss towards healthy weight. The evaluation sought to explore participant experiences, including unanticipated impacts on individual, family and community. Additionally, through surveys and focus groups, the evaluation captured information on potential areas for program improvement.

Methods

The present study utilized a pre- and post-survey, weekly data tracking, and focus groups to evaluate the effectiveness of the FBWP and participant experiences.

The pre- and post-survey consisted of questions assessing perceptions on program activities, impact on eating and activity behavior, as well as food security. Surveys were administered in English and Spanish. Weight and height were measured on the same scale for each farm group by a trained interviewer at baseline and end-of program. The baseline survey included a demographic module, a health module, food/nutrition module, and a program development module. The survey was administered on orientation night or the week participants joined the program.

Tracking forms collected data on attendance at weekly group sessions as well as Saturday programming. Forms included information on minutes of exercise in the previous week and weight status. Tracking forms served to track change and encourage participants to keep on target towards exercise and weight loss goals. These surveys were administered prior to the start of each class session.

At the end of the program, CARE staff conducted two focus groups to understand participants' perspectives on the FBWP process and outcomes. The groups reunited participants from the summer session at each farm location. The Phoenix Press Farm group included six participants and one moderator. The Ward Street Farm focus group included six participants and one moderator. Participants received gift certificates to the NHF farm stand and a farm share for their time and contributions. Focus group questions included what participants most valued or enjoyed about the program, how the program had affected participants' health and well-being, and what could be improved in the program. The groups were conducted in English (Ward Street Farm) and Spanish (Phoenix Press Farm), as these were the primary languages used in each program. Both focus group sessions were audio-recorded and transcribed; the Phoenix Press Farm transcription also translated into English.

Transcriptions were de-identified for confidentiality and reviewed by CARE staff for salient themes. Participants shared their experiences with the FBWP, beginning with their referral pathway, through attending the summer session, and finally reflecting on the impact the program had on their lives. Their responses reflect four motifs: motivation which supported retention, empowerment through learning, doing, and sharing; the sense of community built through the program; and impact of the program. Each motif is described in more detail in this report, along with tables of direct quotes that best represent each idea and participants' suggestions for improving and expanding the program.

Report Structure

The report is organized into three main sections. Each section includes data from the pre-post surveys, quantitative and qualitative data, as well as responses from the participant focus groups, allowing the two methods to complement each other. The focus group information is highlighted in shaded boxes for easy identification.

The report provides information on the following:

1. **Program Participation:** This section provides participant characteristics for those who started the program (and completed the pre-survey), including demographics, health status, and referral pathway. This section concludes with details on attendance and retention.
2. **Program Outcomes:** This section provides program outcomes for those that completed both the pre and post surveys (n=24). Outcomes are scaffolded starting with important shorter-term outcomes: building a sense of community and learning, doing and sharing. These shorter term outcomes then build towards what are typically seen as medium term to longer term outcomes: behavior and behavior change (including changes in fruit and vegetable consumption, sugar consumption, food security, and exercise) and ultimately, health status change, specifically weight change.
3. **Program Feedback:** This section highlights some participant feedback and areas for improvement.

Additional data details are provided in the Appendix.

PROGRAM PARTICIPATION

Participant Characteristics

Participants were 41 low-income residents of the greater New Haven area, with a majority reporting residing in New Haven. A majority of those who attended the Ward Street Farm did not reside in the Hill; however, a majority of the Phoenix Press Farm participants resided in Fair Haven.

AGE: Participants ages ranged from 24-81 years, with an average age of 53 years.

SEX: The majority of participants who started the program were female (n=33; 83%).

HOUSEHOLD SIZE: 2.3 persons on average.

ETHNICITY: 68% of participants identified as Hispanic.

RACE: 33% reported race as Black/African American (n=13) and 10% reported as White (n=4).

EDUCATION: 20% reported having less than a high school education, 5% reported some high school, 29% received a high school diploma, 37% reported some college or technical school, and 10% reported graduating college.

POVERTY: 93% of participants were living at or below 200% FPL or lower. 66% were at or below the federal poverty level.

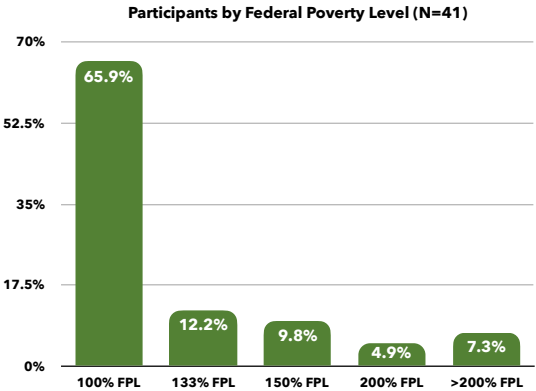
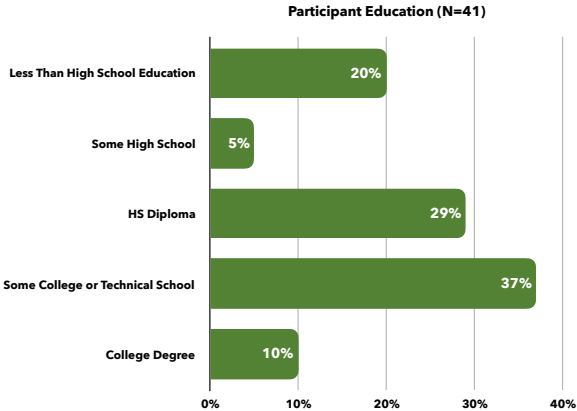
FOOD ASSISTANCE: 63% reported receiving food assistance.

SOCIAL SUPPORTS: 53% reported 1 or more social supports.

CITY OF RESIDENCE: The majority of participants reside in New Haven. Other towns included Ansonia (n=1), East Haven (n=1), Hamden (n=2), Wallingford (n=1), Waterbury (n=2), West Haven (n=2). 76% (n=31) reported residing in New Haven.

PARTICIPATION IN OTHER PROGRAMS: Three participants previously attended the FBWP; two at Ward Street Farm and one at Phoenix Press Farm. Two participants were currently taking part in the Fair Haven Diabetes Prevention Program; one at Ward Street Farm and one at Phoenix Press Farm.

EXERCISE: From both programs, 68% reported exercising or taking part in an exercise program; 65% from Ward Street Farm and 71% from Phoenix Press Farm.



BODY MASS INDEX (BMI): The majority of participants were classified as overweight or obese (93%, n=38). 32% (n=13) of participants had a BMI classification of overweight; 61% (n=25) had a BMI classification of obesity (BMI greater than or equal to 30 kg/m²). Of the population, 26.8% were classified as obesity class I (n=11, BMI of 30 to 34.9 kg/m²), 15% were classified as obesity class II (n=6, BMI of 35 to 39.9 kg/m²), and 20% were classified as obesity class III (n=8, BMI greater than or equal to 40 kg/m²).

DIFFERENCE BY SITE AT BASELINE

AGE: At baseline, the age range was wider at Phoenix Press Farms (24-81 years) compared to Ward Street Farm (41-65 years).

SEX: Participants at both farms were largely female.

RACE/ETHNICITY: All participants at Phoenix Press Farm reported their ethnicity as Hispanic compared to 12% (n=2) at the Ward Street Farm. The majority of Ward Street Farm participants identified as Black/African American while only 4% (n=1) identified as Black/African American from Phoenix Press Farm. That said, most participants from Phoenix Press Farm did not note race and only reported ethnicity.

EDUCATION: A higher percentage of participants at Phoenix Press Farm (29%, n=7) reported having less than a high school education compared to 6% (n=1) at the Ward Street Farm.

HOUSEHOLD SIZE: The household size was slightly larger at Phoenix Press Farms (2.5) compared to Ward Street Farm (2.1). Ward Street Farm had a higher percentage of participants living alone; 41% (n=7) at the Ward Street Farm compared to 13% (n=3) at Phoenix Press Farm.

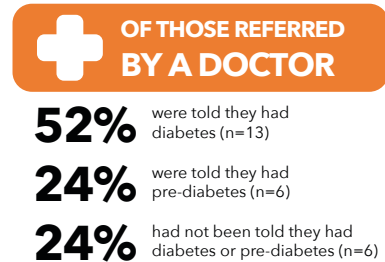
CITY OF RESIDENCE: Of those from New Haven (71%, n=12), participants were from various neighborhoods across New Haven. Only two (17%) attending the Ward Street Farm reported being from the Hill. The majority (84%, n=16) attending Phoenix Press Farm were from Fair Haven; three (16%) reported residing in the Hill neighborhood.

BMI: 12% (n=2) of the participants at Ward Street Farm were classified in the normal BMI class at baseline compared to 4% (n=1) of participants at Phoenix Press Farm. 46% of Phoenix Press Farm participants had a BMI classification of overweight (n=11) while only two Ward Street Farm participants was classified as overweight (12%). Thirteen (76%) attending the Ward Street Farm and twelve (50%) attending Phoenix Press Farm had a BMI classification of obesity.

For additional details, see Table 1A and 1B in the Appendix.

Referral Source

The NHF recruitment model relies heavily on referrals through healthcare professionals at health centers and clinics. Unsurprisingly, the majority of participants (61%) were referred by a doctor to the FBWP. Others were referred by friends or family. Only one was 'referred' by a flyer.



- **Ward Street Farm:** 53% (n=9) referred by doctor, with referrals from Fair Haven Community Health Clinic (FHCHC) (2), Cornell Scott Hill Health Center (1), Yale St. Raphael Campus (4), Yale Primary Care Clinic (2). Of the 9 participants, 7 (78% referred) were told they had diabetes and 2 pre-diabetes (22.2% referred).
- **Phoenix Press Farm:** 68% (n=17) referred by a doctor, with most referrals from FHCHC (15). 38% (n=6) of participants referred by a health professional to Phoenix Press Farm were told by a healthcare professional that they had diabetes, 25% (n=4) were told they had prediabetes, and 38% (n=6) had not been told they had pre-diabetes or diabetes.



Focus Group Feedback:

REFERRAL PATHWAY

While many of the participants in the FBWP were referred through healthcare centers, focus groups also revealed additional referral sources. Several participants were persuaded to attend by family or friends. One learned about the program from the Rock to Rock event in New Haven, while another was encouraged to attend by a staff member from New Haven Farms. Participants appreciated having information about the program, along with the extra nudge to give it a try. One participant shared, "Well, for a while I wanted to get involved in this, but I hadn't had the opportunity to know how. And there they explained it to me, and that's why I came here to the program." Another admitted that her sister "spent almost a year insisting that I come to the program, but I never had the opportunity, until this year. I liked it a lot."

Attendance and Retention

ATTENDANCE

There was no identifiable pattern of attendance. Approximately half of participants attended 8 or more sessions of the program. Many participants joined after the program started. Twenty-one participants attended Week 1 of the program; 43 people were recorded as participating in some portion of the program. 49% of participants (n=21) attended fewer than 8 sessions.

- 21 people started on Week 1 of the program
- 13 of the 43 attended fewer than 5 sessions
- 22 of the 43 attended more than 8 sessions.
- On average, participants attended approximately 8 sessions.

RETENTION TO LAST SESSION

Fifty-eight percent of participants (n=24) completed the pre/post survey. Overall, retention rates were higher among women, those who live alone, those with social supports, and those with pre-diabetes, indicating the importance of having support and motivation to make health changes.

- **Higher percentage of women complete the program:** Of the 7 men who started the program, only 2 men completed the program and attended the last session; 29% of the men completed the end-of-program survey while 65% of the women completed the end-of-program survey.
- **Higher percentage of those living alone completed the program:** 80% (n=8) of those living alone completed the end-of-program survey, compared to 41% (n=7) of those with one other person in the household.
- **A higher percentage of participants believed to have pre-diabetes (80%, n=8) completed the end-of-program survey** compared to less than 50% of those believing they were not at risk for diabetes (45%, n=5).
- At the Ward Street Farm, the participants less than 50 years of age did not complete the end-of-program survey.



Focus Group Feedback:

ATTENDANCE

Reasons to Join

Participants joined the FBWP for different reasons. Some wanted to meet personal health goals, like losing weight or reducing their A1C levels. Other participants wanted to change their habits to model a healthier lifestyle for their loved ones. This desire often spanned generations, as participants compared their current health habits with those of their elders, their children, or their grandchildren. One mother shared, “my godmother drank a lot of soda, candy, and my godfather likewise. And now they both have diabetes. So now they tell me, ‘You have to take care of yourself more.’ So, as I say to my son: we must eat healthy, so we don't get to those extremes and that's why it motivated me to move on, seeing that they eat healthy and children participate in activities.”

Reasons to Stay

After attending one or two sessions, participants were strongly motivated to keep coming back. They genuinely enjoyed the program, citing the Zumba classes and cooking demonstrations as highlights. Moreover, they felt taken care of while they were at New Haven Farms. The staff were warm and attentive, participants were welcome to bring their children, there was food available to eat, and participants received groceries to take home. Even when they felt tired or overwhelmed, participants could motivate themselves to attend because they viewed the farm as a restorative place. One participant recalled, “Yes, sometimes one said, ‘I'm not going today, I feel so tired,’ right? You got tired and all that, but the program made it exciting. Every week we had [something new]. They did the exercises. They shared with us. We did different activities. So, I liked it.” Another participant said, “I began to savor the food they were doing here, and the recipes. That motivated me every day, to say, it's already Monday – it's Tuesday that I must go. And that motivated me to stay, to want to know more about recipes, about food. I felt good.” Several participants plan on continuing with the program in order to achieve long-term goals, like maintaining a lower blood sugar level or getting their own garden spot. They also hoped to stay connected with friends they made in the program.

PROGRAM OUTCOMES

PROGRAM COMPLETERS ONLY

Twenty-four participants completed both the pre-survey and post-survey, providing complete outcome pre/post program data for analysis. These participants were also invited to contribute to two focus groups: one for Phoenix Press Farm participants and one for Ward Street Farm participants. The survey and focus groups included responses from participants in two FBWP groups: the Tuesday Spanish-led group in Fair Haven at the Phoenix Press Farm site and the Thursday English-led group in Hill North at the Ward Street Farm.

DIFFERENCES BETWEEN GROUPS

Although the survey feedback was similar from the groups, there were a few differences to highlight. Generally, the Tuesday group was more interested in topics related to cooking, including meal preparation, new recipes, and different techniques including discussion on recipes, cooking and family in the focus group, while the Thursday group commented more on gardening and healthy eating as well as broad commentary about the program during the focus group.

There were some small differences between the groups. Most participants from the Phoenix Press Farm site were new to the FBWP, as compared to the Ward Street Farm group, which had some participants who had returned to NHF for repeated sessions. The alumni participants spoke positively about the new discussion topics and the hands-on gardening added this season.

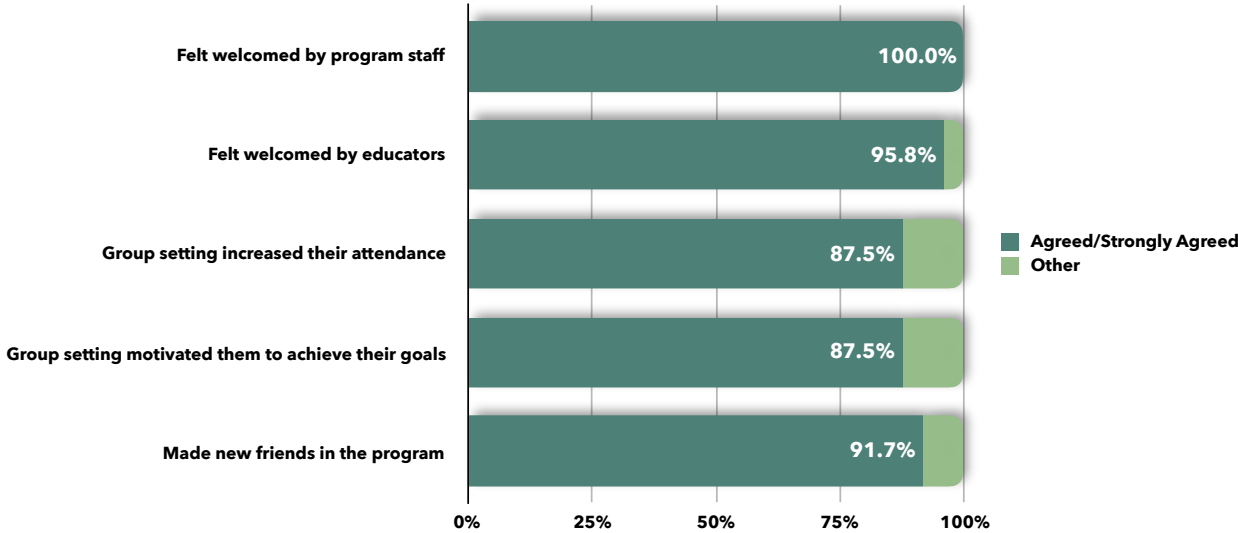
While the data is reported for the FBWP, overall, some items are reported for each farm, and descriptions provided. In context, this design allows for considering reasons for differences by farm. Additional data by farm is provided in the Appendix.

OUTCOMES BY DESIGN

Change in health status and prevention or reduction of chronic conditions takes time and, if based in an ecological framework, is often built on changes in knowledge, attitude and behaviors, as well as change in access to resources, social support, and changes in the community, environment, and social conditions. Participants in the FBWP indicated that the sense of community and their learnings and activities in the weekly sessions supported them in partaking in healthier behaviors. In the sections that follow, we report on the impact of the program first by discussing participants' perception of the effect of the program community and the weekly sessions on their knowledge, attitude and behavior, followed by diet and exercise behavior change and finally change in health status, specifically weight change.

Building a Sense of Community

At NHF, coaches and educators strive to foster a supportive environment where participants can learn about and try new things, from practicing meditation to growing their own food. These efforts are reflected in the feedback from respondents, who strongly valued the connections they made in the program. Respondents said that they felt welcomed by program staff and educators. They felt that the group setting increased their attendance and motivated them to achieve their goals, adding that they enjoyed “being part of a group, learning in a class,” and “sharing food with a group.” Respondents also felt that the weekly contact with the Community Health Ambassadors (CHAs) contributed to their success, with more participants from Phoenix Press Farm finding this aspect helpful. Nearly all respondents said they made new friends in the program.



All participants felt welcomed by program staff at the intake table and weighing station, with more than 85-90% from each farm **strongly agreeing**.

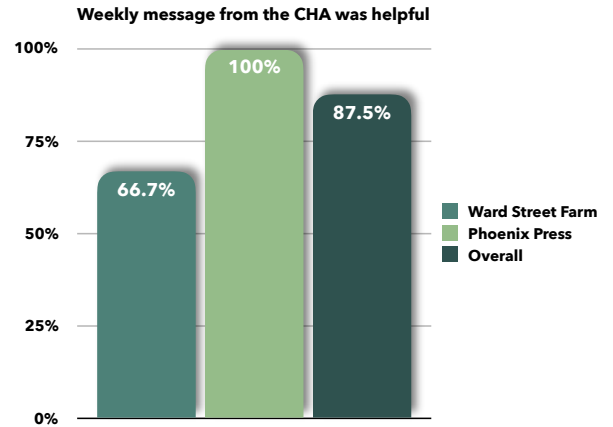
A large majority of participants at both farms agreed or strongly agreed that the group setting increased their attendance and motivated them to achieve their goals.

92% agreed/strongly agreed that they **made new friends** in the program



“ ...And I liked it a lot because I met new people, made friends with some people. ”
 - Ward Street Farm Participant

- 88% agreed/strongly agreed that the **weekly message from Community Health Ambassadors (CHAs)** was helpful.
 - 100% (n=14) from Phoenix Press Farm agreed/strongly agreed.
 - 70% (n=15) from the Ward Street Farm agreed/strongly agreed; one reported disagreeing, indicating never receiving the message.



See Table 2 in the Appendix.



Focus Group Feedback: COMMUNITY

A Sense of Togetherness

Participants found community at New Haven Farms. The program activities unified the group towards a shared vision for health and wellness. One participant said, "this shows that everybody -- you're not alone like in your struggle." Participants chatted while they picked vegetables and chopped food, getting to know people from different backgrounds and cultures. They encouraged one another to try new things and celebrated each other's successes. While they differed in their preferences for tracking their progress (for example, using a home journal versus the weigh-ins at the farm), participants felt that the weekly check-ins helped keep them accountable. They also made friends - something that was especially meaningful for participants who previously felt isolated. "I met many people who got along and we all shared and it made me feel good, because I was a person who came from work, locked myself in my house, fed my children and I didn't want anyone to bother me," explained one participant. "I did not talk to the neighbors. It was very strange to them. I was like a stranger. I just went out and I'm here. And not now, because now I greet them, 'How are you?'"

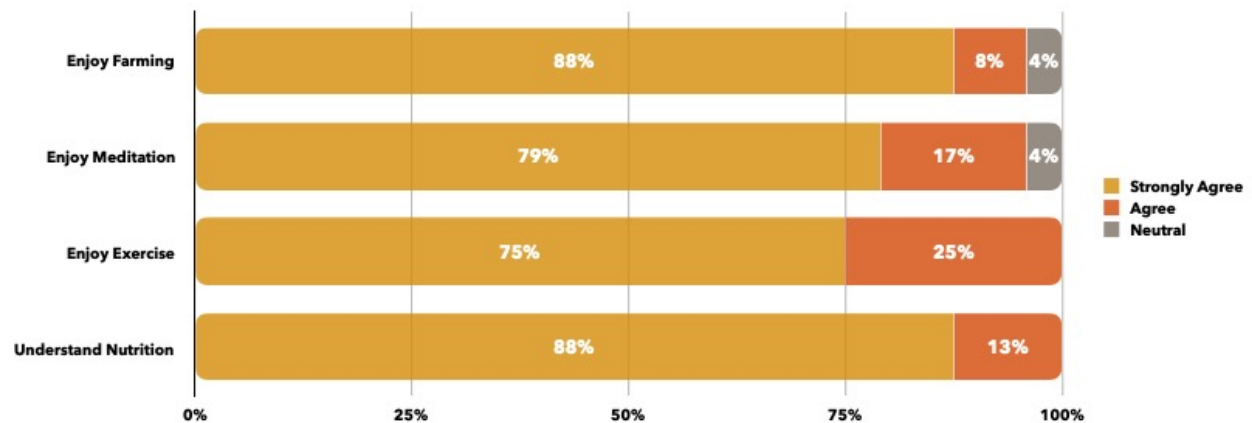
Welcoming Families

The on-site childcare was critical in building this sense of community. It removed a potential access barrier, made participants feel welcomed, and made their children feel like they were part of the program, too. One participant shared, "I greatly appreciated that there were people taking care of our children. Because it's not anywhere, one takes them, and someone takes care of them. It can't be. So, thank you very much for the children, for our young children. We can't go to certain places because we must - they don't accept children; we must leave them with someone. So, I liked this part of the program a lot, because my child also enjoyed it."

Learning, Doing, and Sharing

PARTICIPANT EXPERIENCE: EMPOWERMENT

Participants positively reviewed their hands-on experiences in the FBWP. They enjoyed working on the farm and weekly meditation and the exercise activities. They felt that the curriculum not only helped them improve their understanding about nutrition and healthy eating, but also exposed them to different ideas or approaches. One respondent described the program as “a new and enlightening experience,” while another shared, “I learned things I hadn’t seen or tried.” One respondent noted that “it helps to understand more healthy foods for your child.” Respondents indicated that they felt more informed about nutrition, cooking techniques, portion sizes, and gardening methods after completing the program.



The recipes are well-matched to the program and the audience, as respondents felt the recipes were both culturally appropriate (n=22, 91.7%) and helpful in using the vegetables they received (n=23, 95.8%).

RELATIONSHIP TO FOOD

Almost all respondents agreed that their views of gardening and growing their own food changed after participating in the program (n=22, 91.7%). These changes often prompted deeper reflections about their relationships to food. Some respondents developed a new love of gardening. Others took pride in the commitment to organic farming, describing their joy at “picking the food right out of the ground.” Many respondents expressed interest - and confidence - in growing their own food at home.



Focus Group Feedback: **EMPOWERMENT**

Wanting to Learn More About Health and Well-Being

Participants were hungry to learn. They took the nutrition lessons to heart, with one participant reflecting, "I really liked the program, because I didn't know anything about how to feed my children healthy. My son is overweight, I gave him sugars, [The instructor] taught me that a lot of sugar is bad, how much sugar in a teaspoon, how many ounces. I was surprised by that because I said, 'How much sugar do I give my children daily?'" Participants applied the lessons to their daily lives, highlighting that the food storage tips helped them save time and the meditation practices reduced their stress. Another mother from the program attributed the lessons for helping her better manage the symptoms - and her responses to - her son's attention deficit hyperactivity disorder.

Putting Lessons into Action

Participants enthusiastically expressed how much they enjoyed the hands-on nature of the program. They were proud of growing, harvesting, and cooking their own vegetables. "I actually never had a green thumb," said one participant. "I've got plants all over my house now that I grew from little seedlings ..."

Sharing Lessons with Others

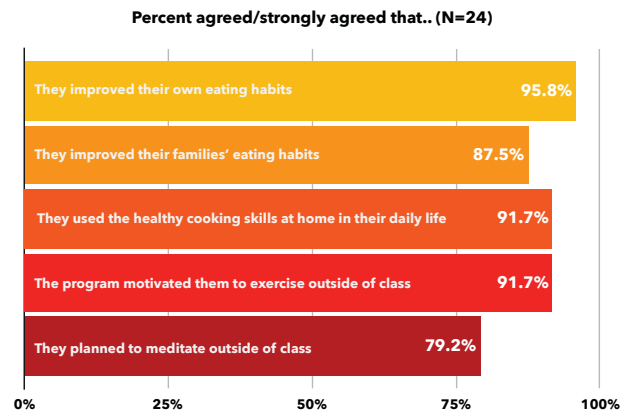
Participants felt that preparing healthy and delicious food and taking care of their own health was an accomplishment - and one that they wanted to share with others. For these participants, the information they learned during the classes and the confidence they gained in the garden and kitchen empowered them to support family members and friends in adopting healthier habits. They acknowledged that this is not always an easy endeavor: one participant teased that her family members "hate me because I count calories on everything now," while another one would remind herself that "in health you must always have a lot of willpower." Still, they wanted to pay these successes forward. One participant described "the beautiful thing" that happened when her relative, who moved before she completed the program, "took the few recipes she received, took them there and she is sharing it there and she is even obtaining land so she can plant and teach that."

Behaviors & Behavior Change

CHANGING HABITS AND PRACTICES

The FBWP is intended to support participants in making lifestyle changes and increasing health literacy. Respondents indicated that they had improved their own eating habits as well as their families' eating habits since beginning the program.

They used the cooking techniques taught in the program in their daily life, and they planned to exercise and meditate outside of class. Many cited small, everyday moments that were changed by their experiences in the program, including picking healthier meal options, buying food to prepare at home, and eating raw vegetables as snacks. Respondents felt that the weekly weigh-ins provided motivation for change, as did exposure to new recipes, ingredients, and cooking techniques.



MEETING GOALS

More than half of the respondents (n=15, 62.5%) began the program with set goals in mind. These goals were centered around healthy eating, weight loss, exercise, and learning more about nutrition. After completing the program, 100% (n=15) of these respondents said that the program helped them address these personal goals.



Focus Group Feedback: BEHAVIOR CHANGE

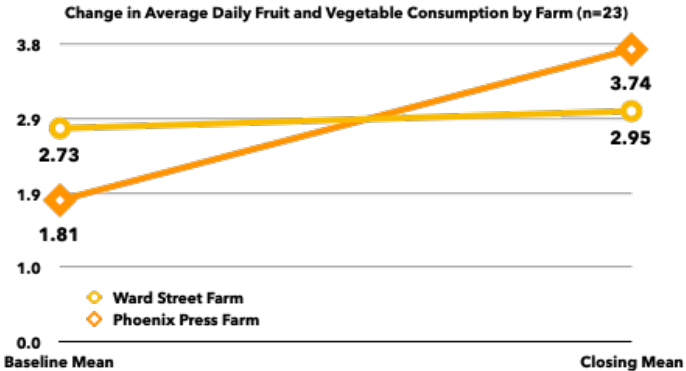
Changes in Cooking and Eating Practices

While they valued the entire program, participants attributed many of the changes in their physical and mental health to the recipes and cooking techniques they learned at the farm. "They tell you how to make the food taste good, even though it's healthier for you," said one participant. They described how they used small swaps, like substituting brown rice for white rice or adding chard to collard greens, to enhance the nutritional value of their families' favorite meals. Participants tried new foods, like okra and broccoli, and incorporated fruits and vegetables into snacks and other meals, outside of salads. One participant admitted, "a lot of that stuff I would have never done, ate on my own, I would have been like, no way. But actually learning about it, and then cooking it and trying it. Even allowing us to prepare the meals, and then trying it. So I learned a lot of stuff that -- let's say I just challenge my tastes, because I'm pretty plain. I stick to -- I'm not an adventurer when it comes to food, but this really changed my enlightenment of that."

Since completing the program, participants have continued to apply the lessons and practices they learned to their own lives. These changes include not keeping soda in the house, reducing overall sugar consumption, drinking more water, planning meals ahead of time, cooking more often, and using leftover foods in soups and other dishes.

DIETARY INTAKE: FRUIT & VEGETABLE CONSUMPTION

The FBWP encourages fruit and vegetable consumption through education, farming, recipes, food preparation, and providing shares of fresh fruits and vegetables each week. An increase in fruit and vegetable consumption was seen at each farm with a 0.22 serving per day increase at the Ward Street Farm and a 1.94 servings per day increase at Phoenix Press Farm, for an average of 1.26 servings per day increase in fruit and vegetable consumption across all participants.



[Note: Food models were used to indicate the size of a serving when collecting data on fruit and vegetable consumption at the end of the program, but were not used at baseline. This may have affected results. Also, one irreconcilable outlier was removed. See Appendix for details.]

DIETARY INTAKE: SUGAR SWEETENED BEVERAGE CONSUMPTION

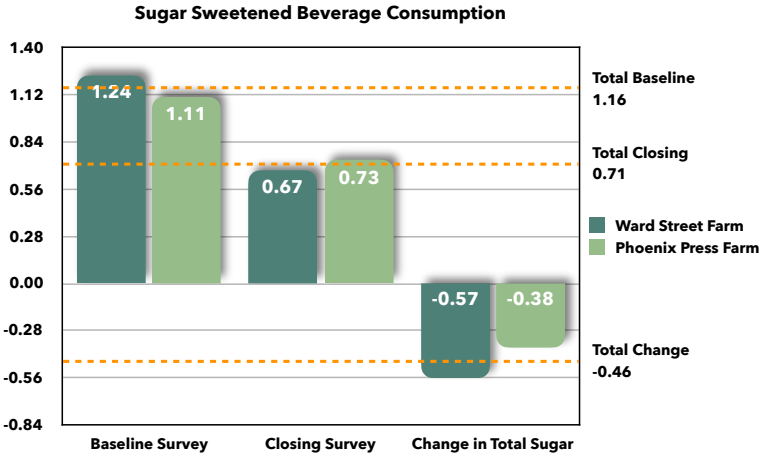
 **0.46**
servings per day reduction
in sugar-sweetened
beverages

Sugar sweetened beverage consumption was one serving per day:

1.2 average servings per day (SD=1.4). Nonetheless, an average reduction was seen at the end of the program. Participants also spoke of being more aware of the amount of sugar-sweetened beverages and sweets they provide to their family at home.

- On average, participants reported a 0.46 servings per day reduction in sugar-sweetened beverage consumption (SD=1.41).
- There was no trend seen by attendance.

See Tables 4A, 4B, and 4C in Appendix.





Focus Group Feedback:

SUGAR

"I really liked the program, because I didn't know anything about how to feed my children healthy. My son is overweight, I gave him sugars, [The instructor] taught me that a lot of sugar is bad, how much sugar in a teaspoon, how many ounces. **I was surprised by that because I said, "How much sugar do I give my children daily?"** ...So, when [the instructor] taught me, that sugar, how much sugar juice has, how much sugar soda has, you think, "What am I doing? I'm doing badly."

-FBWP Participant

"I wanted to comment that it is not easy because my husband does not know the program, it is hard for him. When I put the vegetables in and take away the soda and put the fresh water on it like I feel it is hard to convince him. **So sometimes I remember everything I learned when she taught me about sugar and I stand there and say no. I may have a glass once a month, but no, I stand firm, and that is a lot of willpower that one has to have. In health you must have a lot of willpower.**"

-FBWP Participant

"...it is a help for me and my children. Also having good information on how to help them with their health. Because [sic] if I don't learn from what they teach me on the farm, I would continue to give my children more candies and that's bad."

-FBWP Participant

"I didn't realize how much of a whole lot of sugar is in such a little bit of a drink. I learned that. I was like, oh my God. People think, oh, I drink half a cup. A half of cup is like maybe ten tablespoons of sugar, and I didn't realize it until then."

-FBWP Participant

DIETARY INTAKE: FOOD SECURITY

Because NHF primarily serves a population that is low-income, many participants struggle with multiple barriers that prevent them from engaging in healthy behaviors. Food insecurity is a common barrier; NHF has set out to address this.

Many residents who attended the FBWP reported sometimes or often being worried that their food would run out (in the prior 4 months).

- At baseline, 50% of participants reported sometimes or often being worried that their food would run out before they got more money to buy more food.
- Of those with complete data, when asked how often their family had been worried that food would run out, 17 of the 24 participants (71%) reported no change in their status after the program, 5 reported being less frequently worried (21%) and 2 reported being more frequently worried (8%)
- No trend was seen with increased attendance.

Food provided by NHF assisted with financial burden: While no change was seen in participants' food security status, **all participants** reported that the food provided by NHF assisted with the financial burden of purchasing food. 88% (21 of the 24 participants) reported that the food they received from NHF **OFTEN** assisted with the financial burden of purchasing food and the remaining 3 participants reported that this was **sometimes** true.

21 
OUT OF 24

REPORTED THAT THE FOOD
**THEY RECEIVED FROM
NEW HAVEN FARMS
OFTEN ASSISTED WITH
THE FINANCIAL BURDEN
OF PURCHASING
FOOD**

3 remaining participants
reported that this was
SOMETIMES TRUE.

EXERCISE

Exercise increased over the course of the program, although not in a linear fashion. For those with complete data, average increase from baseline to end-of-program was 64.0 minutes (SD=137.1).

- Average minutes of exercise per week ranged from a low of 54.4 minutes (SD=61.9) at Week 6 to a high of 186.9 minutes (SD=102.8) at Week 13.
 - Phoenix Press Farm participants increased their weekly exercise by an average of 98.0 minutes per week (SD=154.3), while Ward Street Farm participants increased their weekly exercise by an average of 4.4 minutes per week (SD=76.3).
- At end-of-program survey, 45% (10 of 22) reported 150 minutes or more of exercise the prior week compared to 23% (5 of 22) at baseline.

See Table 5 in the Appendix.

EXERCISE: SATURDAY CLASS

The Saturday make-up session and exercise class was a new addition to the FBWP. The program was added as a make-up session that also provided an additional opportunity to be physically active. A 45-minute exercise class was provided each Saturday. 42% (n=10) of FBWP participants that completed the survey reported joining a Saturday class. Some attended the Saturday session only once while one participant attended eight Saturday sessions (mean=3.89, SD=2.15). Of those that attended the Saturday program, ninety percent (n=9) of FBWP participants said they agreed/strongly agreed that they enjoyed the Saturday exercise class and that the Saturday class helped them accomplish their goals.

“ But on Saturdays they did the dancing, right? They had Zumba? On Saturdays they have aerobics, Zumba, they were doing little chacha dances. But it was exercise. I actually did good that day. My sugars were excellent that day because they were working my butt off. ”

- FBWP Participant

“ ... They helped us and encouraged us to exercise, because at home we had to exercise. So, it was a reminder that they always gave us every Tuesday: “How much exercise did you do?” So, like that, it motivated me to do a little more and more every day to make me feel better.

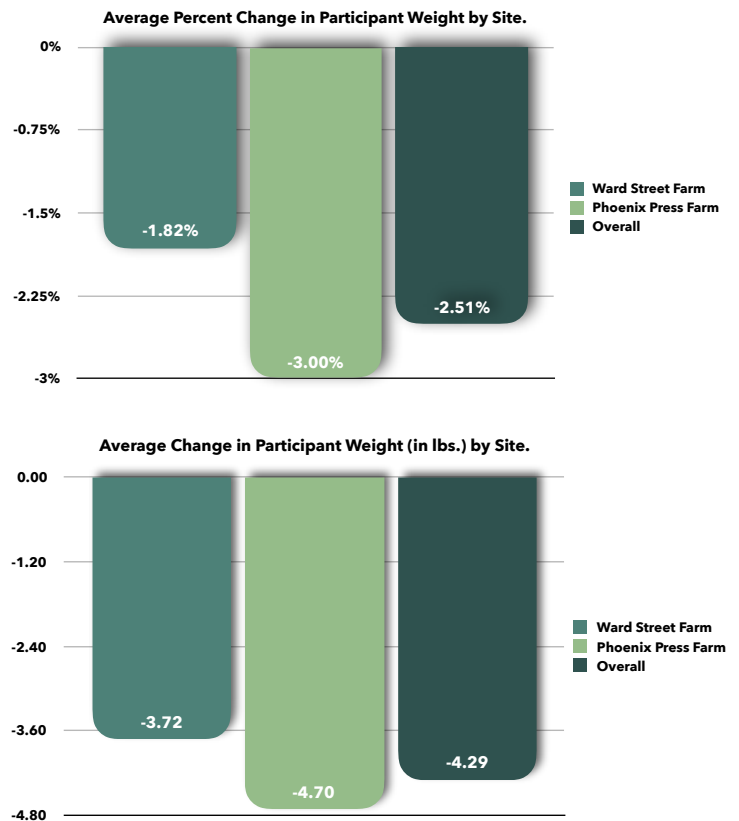
”

- FBWP Participant

Changes to Health Status

Overweight and obesity increase the risk for diabetes and other chronic conditions. The FBWP is intended to support participants in making lifestyle changes and increasing health literacy to prevent and control these conditions - with the primary goal of weight loss. On average, participants with baseline and end-of-program data evidenced significant weight loss.

- Participants lost an average of 4.29 lbs (SD= 5.87) by the end of the program.
 - Phoenix Press Farm participants lost an average of 4.7lbs (SD=5.4)
 - Ward Street Farm participants lost an average of 3.7 lbs (SD=6.7)
- Percentage weight change was 2.5% of body weight (SD=3.4)
- 79% (n=19) lost weight, 11% (n=5) did not lose weight although one of these participants was at healthy weight to start.
 - Of those that lost weight, average weight loss was 6.2 lbs (SD=4.8) or 3.4% of body weight (SD=3.0)
- An unexpected trend was seen for those attending fewer sessions losing more weight.



See Table 6 in the Appendix.



Focus Group Feedback:

Improved Physical and Mental Health

Physical Health

Participants were eager to share the many ways the program had impacted their lives. Some experienced immediate improvements in their physical health, evidenced by intentional weight loss and reduced A1C levels. One participant reported that, “my health has been way, way better. Like I went from 11.5 A1C to a 7.1. And I went to the doctors and it is still going down.” These benefits often extended to their family members, whose diets now included the new recipes and cooking techniques that participants learned. A long-time participant who completed multiple seasons at New Haven Farms shared an astonishing success story. “My daughter lost 50 pounds with me getting in here,” she said. “She was an insulin-dependent diabetic. She is no longer on any insulin or pills; she just has to watch her diet. My goal is the same thing.”

“I lost a lot of weight. I lost weight. Like a lot of people see it in here. I lost a lot of weight. When I came here, I couldn’t even wear jeans. I’ve got the nerve to have a belt on, and I’ve got to pull it. And I didn’t realize it, but a lot of weight from, what was it, 18 weeks? Yeah, definitely.” - *FBWP Participant*

Mental Health

Participants also credited the FBWP with improvements to their mental health. They felt renewed by their time outside, whether it was working in the gardens or practicing meditation. One participant shared, “I liked to play in the soil because I felt that it took away my stress. It filled me with energy. When I arrived at home, I felt differently, it did help me a lot.” When they were at the farm, participants were able to set aside their other responsibilities and worries. They ate fresh foods, enjoyed the company of their neighbors, and moved their bodies. New Haven Farms was a place where they could tend to themselves. Many participants reported that being part of New Haven Farms’ FBWP helped reduce stress:

“These nutrition classes, this program has helped us a lot in managing stress. Work stress, home stress, chores we have and all that. So also, especially meditation and the exercises on Saturday. They help us manage stress. It makes you feel lighter as she said. Similarly, nutrition. Eating better helps us feel healthier logically. To feel our stomachs lighter and with more energy.” - FBWP Participant

PROGRAM FEEDBACK

Participant Feedback

When asked about their favorite part of the program, many participants mentioned learning about nutrition, and growing, preparing, and storing food.

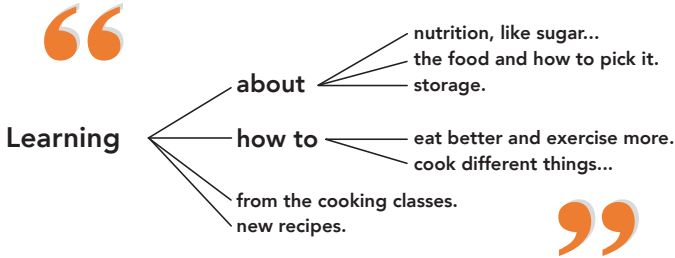
Others noted, farming, meditation, exercise, and community. Several participants couldn't pick just one favorite and noted several aspects of the program.

"The whole program. Fresh veggies, being outside, fitness program, and the cooking."
"The food and friends and the exercise."
"Gardening, meditation, food. Overall, everything about the program."

A testament to the programs' success, 23 of 24 participants (96%) reported that they want to stay involved with NHF after this session is over.

Opportunities for Improvement

When asked how to improve the program, respondents suggested adding another session each week, providing more education on gardening, using other locations (e.g., host an exercise class in the park), setting up a tent or using repellent(s) to cope with insects, and clarifying that the program is free for participants. Many also recommended that participants be encouraged to invite friends to attend the program.



Quotes from participant responses when asked about their favorite part of the program.



want to stay involved with NHF after the program



Focus Group Feedback:

SUGGESTIONS FOR IMPROVEMENT

During the focus groups, participants were asked how the program could be improved. They shared a few ideas for improving the content of the program. They requested “fast” recipes that could be prepared quickly when they didn’t have much time to cook. They also felt it was important that all participants be able to practice each step of the recipe during the cooking classes. One participant wondered whether the amount of free produce could be increased, especially in the later weeks when participants have integrated more fruits and vegetables into their diet. Another suggested that facilitators redirect participants when conversations and attentions drift away from the lesson. One participant was dismayed that Zumba was now only offered in the Saturday program.

Their main concern, however, was increasing access to the FBWP for current and future participants. They identified transportation as a major barrier. Some participants who didn’t have access to reliable transportation were able to walk to the program because they lived in the neighborhood, while others missed classes for lack of a ride. Participants debated the merit of changing program locations, mindful that “when the place is different, everything is different.” They wondered if it would be possible to develop a shuttle system or to arrange carpools; one participant said a staff member gave her a ride home. One participant aptly observed, “transportation with children and everything, is difficult. But then, they can’t get to the farm. So how can we do it? How can we take the farm to them?”

Participants also sought means of expanding the program. Their suggestions included adding a second weekday slot and inviting friends and adult family members (like siblings or older children) to join as well. In these exchanges, participants were cognizant of respecting volunteers’ time and New Haven Farm’s capacity to provide these resources at no cost.

They proposed adding a second phase to the FBWP that would help alumni participants maintain their health habits. This program could potentially be led by the alumni, who could share their own recipes or cooking traditions with the New Haven Farms staff and with a new cohort of participants. One participant felt that it would be a way to give back to the program, saying “it would be wonderful if we gave them surprise, of how we are doing....we organize within the group, and we teach our recipe. And feed them what we are doing.”

APPENDIX

DEMOGRAPHICS

Table 1A. Characteristics of participants who started the program. (N=41)

Characteristics	Ward Street Farm (n=17) n (%), Mean (range)	Phoenix Press Farm (n=24) n (%)	TOTAL N(%)
Age in years			
Mean	53.5 (41-65)	52.0 (24-81)	52.6 (24-81)
24-45	2 (11.8)	8 (33.3)	10 (24.4)
46-65	15 (88.2)	13 (54.2)	28 (68.3)
Over 65	0 (0.0)	3 (12.5)	3 (7.3)
Sex			
Male	3 (17.7)	4 (16.7)	7 (17.1)
Female	14 (82.4)	20 (83.3)	34 (82.9)
Household size	2.1	2.5	
1	7 (41.2)	3 (12.5)	10 (24.4)
2	6 (35.3)	11 (45.8)	17 (41.5)
3	1 (5.9)	6 (25.0)	7 (17.1)
4	2 (11.8)	3 (12.5)	5 (12.2)
5	1 (5.8)	1 (4.2)	2 (4.9)
Born in Continental US			
Yes	13 (76.5)	2 (8.3)	15 (36.59)
No	4 (23.5)	22 (91.7)	26 (63.4)
Years in US	24.0 (n=1)	14.8 (3-24)	
Birth Place Outside the Continental USA			
Puerto Rico	3 (75.0)	10 (45.5)	13 (50.0)
Mexico	0 (0.0)	4 (18.2)	4 (15.4)
El Salvador	0 (0.0)	3 (13.6)	3 (11.5)
Ecuador	0 (0.0)	3 (13.6)	3 (11.5)
Columbia	0 (0.0)	1 (4.6)	1 (3.9)
Dominican Republic	0 (0.0)	1 (4.6)	1 (3.9)
Ghana	1 (25.00)	0 (0)	1 (3.9)
Ethnicity			
Hispanic	4 (23.5)	24 (100.0)	28 (68.3)
Race †			
White	0 (0.0)	4 (16.7)	4 (9.8)
Black or African American	12 (70.6)	1 (4.2)	13 (31.7)
Other	1 (5.9)	8 (33.3)	9 (22.0)
Missing (NB: all reported Hispanic)	4 (23.5)	11 (46.0)	15 (37.0)

Education

Less than HS (never, grades 1-8)	1 (5.9)	7 (29.2)	8 (19.5)
Some HS (Grades 9-11)	1 (5.9)	1 (4.2)	2 (4.9)
HS diploma (Grade 12 or GED)	3 (17.7)	9 (37.5)	12 (29.3)
Some college or technical school	10 (58.8)	5 (20.8)	15 (36.6)
College graduate	2 (11.8)	2 (8.3)	4 (9.8)

Receiving Food Assistance

Yes	13 (76.5)	13 (54.2)	26 (63.4)
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Number of Social Supports

None	4 (23.5)	11 (45.8)	15 (36.6)
One	7 (41.2)	9 (37.5)	16 (39.0)
Two	4 (23.5)	3 (12.5)	7 (17.1)
Three or more	2 (11.8)	1 (4.2)	3 (7.3)

Federal Poverty line, n(%)

100% FPL	11 (64.7)	16 (66.7)	27 (65.9)
133% FPL	1 (5.8)	4 (16.7)	5 (12.2)
150% FPL	3 (17.7)	1 (4.2)	4 (9.8)
200% FPL	1 (5.9)	1 (4.2)	2 (4.9)
>200% FPL	1 (5.9)	2 (8.3)	3 (7.3)

Years attended

First time	14 (82.4)	23 (95.8)	37 (90.2)
Second session	2 (11.8)	1 (4.2)	3 (7.3)
Missing	1 (5.9)	0 (0)	1 (2.4)

FH Diabetes PP

Never take part -no	14 (82.4)	20 (83.3)	34 (82.9)
Ever take part - yes	1 (5.9)	1 (4.2)	2 (4.9)
Don't know	1 (5.9)	0 (0.0)	1 (2.4)
Missing	1 (5.9)	3 (12.5)	4 (9.8)
<i>Of those ever taking part, taking part now</i>	1 (100.0)	1 (100.0)	2 (100.0)

City live in

New Haven	12 (70.6)	19 (79.2)	31 (75.6)
Ansonia	1 (5.9)	0 (0.0)	1 (2.4)
East Haven	0 (0.0)	1 (4.2)	1 (2.4)
Hamden	3 (17.6)	0 (0.0)	2 (4.9)
Wallingford	0 (0.0)	1 (4.2)	1 (2.4)
Waterbury	0 (0.0)	2 (8.33)	2 (4.9)
West Haven	1 (5.9)	1 (4.2)	2 (4.9)

Neighborhood if live in New Haven			
Hill	2 (16.7)	3 (15.8)	5 (16.1)
Fair Haven	1 (8.3)	16 (84.2)	17 (54.8)
West Rock	0 (0.0)	0 (0.0)	0 (0.0)
West River	1 (8.3)	0 (0.0)	1 (3.2)
Dwight	1 (8.3)	0 (0.0)	1 (3.2)
Newhallville	0 (0.0)	0 (0.0)	0 (0.0)
Amity	1 (8.3)	0 (0.0)	1 (3.2)
Beaver Hill	1 (8.3)	0 (0.0)	1 (3.2)
Bellavista	1 (8.3)	0 (0.0)	1 (3.2)
Downtown	1 (8.3)	0 (0.0)	1 (3.2)
Westville	1 (8.3)	0 (0.0)	1 (3.2)
Whalley	2 (16.7)	0 (0.0)	2 (6.45)
Referral source[†]			
Doctor	9 (52.9)	16 (66.7)	25 (61.0)
Family/friend	3 (17.7)	6 (25.0)	9 (22.0)
Other	5 (29.4)	2 (8.3)	7 (17.1)
Of those referred by a doctor, referral location			
Fair Haven CHC	2 (22.2)	15 (93.8)	17 (68.0)
Cornell Scott Hill Health Center	1 (11.1)	0 (0.0)	1 (4.0)
Yale St Raphael Campus	4 (44.4)	1 (6.3)	5 (20.0)
Yale Primary Care Clinic	2 (22.2)	0 (0.0)	2 (8.0)
Of those referred by a doctor,			
Diabetes (told by health professional)	6 (66.7)	5 (31.3)	11 (44.0)
Gestational	1 (11.1)	1 (6.3)	2 (8.0)
Pre-diabetes (told by hp)	2 (22.2)	4 (25.0)	6 (24.0)
No diabetes	0 (0.0)	6 (37.5)	6 (24.0)
Total referred by any source,			
Diabetes	9 (52.9)	7 (29.2)	16 (39.0)
Gestational diabetes	2 (11.8)	1 (4.2)	3 (7.3)
Pre-diabetes	4 (23.5)	6 (25.0)	10 (24.4)
No diabetes	1 (5.9)	10 (41.7)	11 (26.8)
Missing	1 (5.9)	-	1 (2.4)
Body Mass Index (BMI)			
Normal Weight (18.5-24.9 kg/m ²)	2 (11.8)	1 (4.2)	3 (7.3)
Overweight (25-29.9 kg/m ²)	2 (11.8)	11 (45.8)	13 (31.7)
Obese Class I (30-34.9 kg/m ²)	3 (17.6)	8 (33.3)	11 (24.4)
Obese Class II (35-39.9 kg/m ²)	4 (23.5)	2 (8.3)	6 (14.6)
Obese Class III (≥40 kg/m ²)	6 (35.3)	2 (8.3)	8 (19.5)

‡Ward Street Farm: 12 reported Non-Hispanic Black, 1 non-Hispanic Other; Phoenix Press Farm: 11 reported Hispanic and nothing further, 8 reported Hispanic and Other race; 1 reported Black and Hispanic, and 4 White and Hispanic

† Other includes: hearing from health center (2), SW from Project Access (1), Rock-to-Rock event (1), SCSU (1), Mitchel Library (1)

Table 1B. Characteristics of participants who completed the program. (N=24)

Characteristics	Ward Street Farm (n=10) n (%), Mean (range)	Phoenix Press Farm (n=14) n (%)	TOTAL N(%)
Age in years			
Mean	57.0 (51-65)	51.4 (30-81)	53.8 (30-81)
24-45	0 (0.0)	5 (35.7)	5 (20.8)
46-65	10 (100.0)	7 (50.0)	17 (70.8)
Over 65	0 (0.0)	2 (14.3)	2 (8.3)
Sex			
Male	0 (0.0)	2 (14.3)	2 (8.3)
Female	10 (100.0)	12 (85.7)	22 (91.7)
Household size			
1	5 (50.0)	3 (21.4)	8 (33.3)
2	3 (30.0)	4 (28.6)	7 (29.2)
3	1 (10.0)	5 (35.7)	6 (25.0)
4	0 (0.0)	1 (7.1)	1 (4.2)
5	1 (10.0)	1 (7.1)	2 (8.3)
Born in Continental US			
Yes	7 (70.0)	1 (7.1)	8 (33.3)
No	3 (30.0)	13 (92.9)	16 (66.7)
Years in US	24.0 (24.0-24.0, n=1)	17.9 (8.0-24.0, n=8)	
Birth Place Outside the Continental USA			
Puerto Rico	2 (66.7)	5 (38.5)	7 (43.8)
Mexico	0 (0.0)	3 (23.1)	3 (18.8)
El Salvador	0 (0.0)	1 (7.7)	1 (6.3)
Other Country	1 (33.3)	4 (30.7)	5 (31.1)
Ethnicity			
Hispanic	2 (41.7)	14 (100.0)	16 (66.7)
Race			
White	0 (0.0)	1 (7.7)	1 (4.4)
Black or African American	7 (70.0)	1 (7.7)	8 (34.8)
Other	3 (30.0)	11 (84.6)	14 (60.9)
Education			
Less than HS (includes never attended, grades 1-8)	0 (0.0)	5 (35.7)	5 (20.8)
Some HS (Grades 9-11)	1 (10.0)	1 (7.1)	2 (8.3)
HS diploma (Grade 12 or GED)	1 (10.0)	3 (21.4)	4 (16.7)
Some college or technical school	7 (70.0)	4 (28.6)	11 (45.8)
College graduate	1 (10.0)	1 (7.1)	2 (8.3)
Receiving Food Assistance			
Yes	7 (70.0)	7 (50.0)	14 (58.3)

Number of Social Supports			
None	3 (30.0)	7 (50.0)	10 (41.7)
One	4 (40.0)	6 (42.9)	10 (41.7)
Two	3 (30.0)	0 (0.0)	3 (12.5)
Three or more	0 (0.0)	1 (7.1)	1 (4.2)
Federal Poverty line, n(%)			
100% FPL	6 (60.0)	10 (71.4)	16 (66.7)
133% FPL	1 (10.0)	1 (7.1)	2 (8.3)
150% FPL	2 (20.0)	1 (7.1)	3 (12.5)
200% FPL	1 (10.0)	0 (0.0)	1 (4.2)
>200% FPL	0 (0.0)	2 (14.3)	2 (8.3)
Years attended			
First time	7 (77.8)	14 (100.0)	21 (91.3)
Second session	2 (22.2)	0 (0.0)	2 (8.7)
Missing	1	0	
City live in			
New Haven	6 (60.0)	11 (78.6)	17 (70.8)
Ansonia	1 (10.0)	0 (0.0)	1 (4.2)
East Haven	0 (0.0)	1 (7.1)	1 (4.2)
Hamden	2 (20.0)	0 (0.0)	1 (8.3)
Wallingford	0 (0.0)	1 (7.1)	1 (4.2)
Waterbury	0 (0.0)	0 (0.0)	0 (0.0)
West Haven	1 (10.0)	1 (7.1)	2 (8.3)
Neighborhood if live in New Haven			
Hill	1 (16.7)	1 (9.1)	2 (11.8)
Fair Haven	0 (0.0)	10 (90.9)	10 (58.8)
West Rock	0 (0.0)	0 (0.0)	0 (0.0)
West River	0 (0.0)	0 (0.0)	0 (0.0)
Dwight	1 (16.7)	0 (0.0)	1 (5.9)
Newhallville	0 (0.0)	0 (0.0)	0 (0.0)
Amity	1 (16.7)	0 (0.0)	1 (5.9)
Beaver Hill	1 (16.7)	0 (0.0)	1 (5.9)
Bellavista	0 (0.0)	0 (0.0)	0 (0.0)
Downtown	1 (16.7)	0 (0.0)	1 (5.9)
Westville	1 (16.7)	0 (0.0)	1 (5.9)
Whalley	0 (0.0)	0 (0.0)	0 (0.0)
Referral source			
Doctor	4 (40.0)	9 (64.3)	13 (54.2)
Family/friend	3 (30.0)	4 (28.6)	7 (29.2)
Other	3 (30.0)	1 (7.1)	4 (16.7)
Of those referred by a doctor, referral location			
Fair Haven CHC	1 (25.0)	9 (100.0)	10 (76.9)
Cornell Scott Hill Health Center	0 (0.0)	0 (0.0)	0 (0.0)

Yale St Raphael Campus	2 (50.0)	0 (0.0)	2 (15.4)
Yale Primary Care Clinic	1 (25.0)	0 (0.0)	1 (7.7)
Of those referred by a doctor,			
Diabetes (told by health professional)	3 (75.0)	3 (33.3)	6 (46.2)
Gestational	0 (0)	1 (11.1)	1 (7.7)
Pre-diabetes (told by hp)	1 (25.0)	3 (33.3)	4 (30.8)
No diabetes	0 (0.0)	2 (22.2)	2 (15.4)
Total referred by any source,			
Diabetes	5 (50.0)	4 (28.6)	9 (37.5)
Gestational diabetes	0 (0.0)	1 (7.1)	1 (4.2)
Pre-diabetes	3 (30.0)	5 (35.7)	8 (33.3)
No diabetes	1 (10.0)	4 (28.6)	5 (20.8)
<i>Missing</i>	1 (10.0)	0 (0)	1 (4.2)
Body Mass Index (BMI)			
Normal Weight (18.5-24.9 kg/m ²)	2 (20.0)	1 (7.1)	3 (12.5)
Overweight (25-29.9 kg/m ²)	1 (10.0)	7 (50.0)	8 (33.3)
Obese Class I (30-34.9 kg/m ²)	1 (10.0)	3 (21.4)	4 (16.7)
Obese Class II (35-39.9 kg/m ²)	2 (20.0)	2 (14.3)	4 (16.7)
Obese Class III (≥40 kg/m ²)	4 (40.0)	1 (7.1)	5 (20.8)

Building a Sense of Community

COMMUNITY BUILDING

Table 2. Building Community at the Ward Street and Phoenix Press Farms.

	Strongly Disagree <i>n</i> (%)	Disagree <i>n</i> (%)	Neutral <i>n</i> (%)	Agree <i>n</i> (%)	Strongly Agree <i>n</i> (%)	Refused
Welcome	-	-	-	3 (12.5)	21 (87.5)	
Cooking/Nutrition	-	-	1 (4.2)	2 (8.3)	21 (87.5)	
Gardening/Meditation	-	-	1 (4.2)	2 (8.3)	21 (87.5)	
Attendance	-	-	2 (8.3)	9 (37.5)	12 (50.0)	1 (4.2)
Goals	-	-	3 (12.5)	5 (20.8)	16 (66.7)	
Program Texts	1 (4.2)	-	2 (8.3)	5 (20.8)	16 (66.7)	
Community Friends	-	-	2 (8.3)	7 (29.2)	15 (62.5)	

Table 2A. Building Community at the Ward Street Farm.

	Strongly Disagree <i>n (%)</i>	Disagree <i>n (%)</i>	Neutral <i>n (%)</i>	Agree <i>n (%)</i>	Strongly Agree <i>n (%)</i>
Welcome	-	-	-	1 (10.0)	9 (90.0)
Cooking/Nutrition	-	-	1 (10.0)	1 (10.0)	8 (80.0)
Gardening/Meditation	-	-	1 (10.0)	1 (10.0)	8 (80.0)
Attendance	-	-	2 (20.0)	4 (40.0)	3 (30.0)
Goals	-	-	2 (20.0)	3 (30.0)	5 (50.0)
Program Texts	1 (10.0)	-	2 (20.0)	2 (20.0)	5 (50.0)
Community Friends	-	-	2 (20.0)	3 (30.0)	5 (50.0)

Table 2B. Building Community at Phoenix Press Farm.

	Strongly Disagree <i>n (%)</i>	Disagree <i>n (%)</i>	Neutral <i>n (%)</i>	Agree <i>n (%)</i>	Strongly Agree <i>n (%)</i>	Refused
Welcome	-	-	-	2 (14.3)	12 (85.7)	
Cooking/Nutrition	-	-	-	1 (7.1)	13 (92.9)	
Gardening/Meditation	-	-	-	1 (7.1)	13 (92.9)	
Attendance	-	-	-	5 (35.7)	9 (64.3)	1 (4.2)
Goals	-	-	1 (7.1)	2 (14.3)	11 (78.6)	
Program Texts	-	-	-	3 (21.4)	11 (78.6)	
Community Friends	-	-	-	4 (28.6)	10 (71.4)	

Behaviors & Behavior Change

FRUIT AND VEGETABLE CONSUMPTION

Table 3. Fruit and Vegetable Consumption by Participants (N=23)*

	Baseline Survey			Closing Survey			Change in Consumption		
	n	Mean	Std. Dev.	n	Mean	Std. Dev.	n	Mean	Std. Dev.
Ward Street Farm	9	2.73	2.30	9	2.95	2.47	9	0.22	3.04
Phoenix Press Farm	14	1.81	1.60	14	3.74	2.74	14	1.94	3.52
Overall	23	2.17	1.91	23	3.43	2.61	23	1.27	3.38

*Outliers cross checked with related data. For fruit and vegetable intake, extreme number fruit and vegetables per day compared to food frequency items. One outlier from Ward Street removed for fruit and vegetable data.

SUGAR INTAKE

Table 4A. Sugar Intake (Servings/day) by Participants with Complete Data (N=24)

	Baseline Survey			Closing Survey			Change		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Servings per day									
Ward Street Farm	10	1.24	1.82	10	0.67	0.55	10	-0.57	1.66
Phoenix Press Farm	14	1.11	0.97	14	0.73	0.68	14	-0.38	1.26
Total Sugar	24	1.16	1.35	24	0.71	0.62	24	-0.46	1.41

Table 4B. Sugar Intake (Servings/day) for Participants with Complete Data (N=24)

	Baseline Survey			Closing Survey			Change		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Servings per day									
Soda	24	0.14	0.41	24	0.07	0.20	24	-0.08	0.22
Coffee (with sugar)	24	0.71	0.83	24	0.56	0.53	24	-0.15	0.93
Sugar Drink	24	0.31	0.82	24	0.08	0.22	24	-0.23	0.87
Total Sugar	24	1.16	1.35	24	0.71	0.62	24	-0.46	1.41

EXERCISE

Table 5. Physical Activity at the Ward Street and Phoenix Press Farms in minutes (N=22)

	Baseline Survey			Closing Survey			Change		
	n	Mean	Std. Dev.	n	Mean	Std. Dev.	n	Mean	Std. Dev.
Ward Street	8	136.88	134.45	8	141.25	99.78	8	4.38	76.27
Phoenix Press	14	77.14	86.35	14	175.18	127.62	14	98.04	154.30
Overall	22	98.86	107.27	22	162.84	116.96	22	63.98	137.13

*Outliers cross checked with related data. For physical activity, data were considered along with weekly exercise reports. One outlier removed for physical activity from Ward Street.

Changes to Health Status

WEIGHT CHANGE

Table 6. Participant Weight Loss (in pounds) by Site (N=24)

Site	Weight Change			Weight Change Percent		
	n	Mean	SD	n	Mean	SD
Ward Street	10	-3.72	6.73	10	-0.02	0.03
Phoenix Press	14	-4.70	5.40	14	-0.03	0.04
Overall Weight Loss	24	-4.29	5.87	24	-0.03	0.03

Focus Group Themes

MOTIVATION

Reasons to join and Reasons to Stay

- Yes, there was an occasion that I said, "Oh no." It's because of work, that sometimes I was a little late because when he left work a little later, picking up the children to school, then taking them to the appointment when I had to, sometimes I was late, but I was arriving. And I said, "Oh, how tired. I would like to rest. I better not go anymore." But I said, "No, it's for the well-being of my son." Because my son is overweight and then I said, "I will learn how to help him because I don't want him to suffer from diabetes in the future. Because he may be prone to diabetes.... And just talking to them they told me that now my [relative] drank a lot of soda, candy, and my [other relative] likewise. And now they both have diabetes. So now they tell me, "You have to take care of yourself more." So, as I say to my son: we must eat healthy, so we don't get to those extremes and that's why it motivated me to move on, seeing that they eat healthy and children participate in activities.
- I really liked the program because it helps a lot for one's health: learning to eat healthier and exercise, and by the way, the program has been very good. Very, very productive for one to take advantage of one's health.....There were things that I did not know how they were prepared, but we have been gradually learning how to do them. And it is very important to see if one can continue with the program for one to continue learning more than what we learned in this short time.
- *But on Saturdays they did the dancing, right? They had Zumba? On Saturdays they have aerobics, Zumba, they were doing little chacha dances. But it was exercise. I actually did good that day. My sugars were excellent that day because they were working my butt off.*
- We were able to cook with those fresh and organic vegetables, and they gave them to us free of charge, and I had the opportunity to share my vegetables with other people by sharing the information of what is nutritious [and] talking a little more to other people who have no knowledge in this. So, I wanted to share this from here. And I want more people to know this program, so that they can help other people more.
- Me, myself, my health has been way, way better. Like I went from 11.5 A1C to a 7.1. And I went to the doctors and it is still going down. So I am very proud of the stuff that I'm learning, so I keep going to the classes, because this year was different from last year. So I'm looking forward to next year. Next year I get my own full garden, so I'm looking forward to that. Hopefully you too. A full garden spot.

EMPOWERMENT

Wanting to learn more about health and wellbeing—putting lessons into action

- I really liked the program, because I didn't know anything about how to feed my children healthy. My son is overweight, I gave him sugars, [The instructor] taught me that a lot of sugar is bad, how much sugar in a teaspoon, how many ounces. I was surprised by that because I said, "How much sugar do I give my children daily?" and instead of giving them healthier vegetables, I gave them hamburgers, fried, and I was hurting my own children. So, when [the instructor] taught me, that sugar, how much sugar juice has, how much sugar soda has, you think, "What am I doing? I'm doing badly."
- I love all aspects of a lot of stuff when they talked to us last year, they put it in this year. Like working with the garden, more hands on working in the field and picking the stuff, we actually did that.
- I wanted to comment that it is not easy because my husband does not know the program, it is hard for him. When I put the vegetables in and take away the soda and put the fresh water on it like I feel it is hard to convince him. So sometimes I remember everything I learned when she taught me about sugar

and I stand there and say no. I may have a glass once a month, but no, I stand firm, and that is a lot of willpower that one has to have. In health you must have a lot of willpower.

COMMUNITY

- What I value most about the program was that - the one - the time that people spent being there. Because some are volunteers, others are working in the program, and I really appreciate people giving us vegetables, because that is saving a little money, at home, so we had to take advantage of vegetables because nobody gives us vegetables in the market. So, I appreciate that all the people who went were given their vegetable bag. *And I liked it a lot because I met new people, made friends with some people.* I liked it because you always learn something new. Apart from that they helped us and encouraged us to exercise, because at home we had to exercise. So, it was a reminder that they always gave us every Tuesday: "How much exercise did you do?" So, like that, it motivated me to do a little more and more every day to make me feel better, and I also liked it because people change. They change their eating habits. And that is very good because we want to be healthy and we want to learn to eat healthier.
- I met people that I'll probably always know, I'll remember them. Like I'll never forget them. And probably if I see them out, this has caused us to spark up a conversation, something that we have in common. Forever now.
- You learn from each other's testimonies when we speak, when we are meditating. You learn a lot from what you suffer; what one suffers, the other then says, "Wow, it's not just me."
- I greatly appreciated that there were people taking care of our children. Because it's not anywhere, one takes them, and someone takes care of them. It can't be. So, thank you very much for the children, for our young children. We can't go to certain places because we must - they don't accept children; we must leave them with someone. So, I liked this part of the program a lot, because my child also enjoyed it. He enjoyed it a lot.

IMPACT

- Me, myself, my health has been way, way better. Like I went from 11.5 A1C to a 7.1. And I went to the doctors and it is still going down.
- I lost a lot of weight. I lost of weight. Like a lot of people see it in here. I lost a lot of weight. When I came here, I couldn't even wear jeans. I've got the nerve to have a belt on, and I've got to pull it. And I didn't realize it, but a lot of weight from, what was it, 18 weeks? Yeah, definitely.
- These nutrition classes, this program has helped us a lot in managing stress. Work stress, home stress, chores we have and all that. So also, especially meditation and the exercises on Saturday. They help us manage stress. It makes you feel lighter as she said. Similarly, nutrition. Eating better helps us feel healthier logically. To feel our stomachs lighter and with more energy.
- So, in this program I liked it because I arrived, I knew more people, shared, and was outdoors. At least it cleared me of all the stress I had. And it helped me a lot because that was also hurting my health.
- I even put them out as a snack for my kids. Like the carrots and the squash and zucchini, I'll slice it, and I'll put them in Italian salad dressing and let it marinate. Because it cooks the zucchini and squash together. And we used to eat it in bowls, and they tore it up. My daughters are doing excellent. Lost a lot of weight.
- And the food when you're cooking it, I have the whole neighborhood smelling good because I have the windows open. And they say, "What are you cooking?" I've had people knock on the door asking if they could get a plate of collard greens.

- I would never have ever eaten okra. And she made a recipe with okra, and it wasn't slimy, and it was actually really good; I was shocked.
- I didn't realize how much of a whole lot of sugar is in such a little bit of a drink. I learned that. I was like, oh my God. People think, oh, I drink half a cup. A half of cup is like maybe ten tablespoons of sugar, and I didn't realize it until then.