Healthy Body, Healthy Spirit Pilot

Advocates for Better Children's Diets

Healthy Body, Healthy Spirit Pilot Project Final Report
USDA FNS-SNAP-HBHS- DC-15-01
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Overview

To explore the potential for faith-based organizations to catalyze healthy nutrition and physical activity habits in their neighborhoods, Advocates for Better Children's Diets (ABCD), a non-profit focused on improving health and nutrition habits, policies, and environments within communities, teamed with the Leadership Council for Healthy Communities (LCHC), a non-profit experienced in empowering faith institutions to improve the health of their communities. The Healthy Body, Healthy Spirit (HBHS) Pilot Project adapted an approach developed by LCHC that had successfully utilized "Health Coordinators from the congregation" to reach African-American women with messages for prevention and treatment of HIV/AIDS through targeted Washington, DC faith-based organizations. The one-year HBHS Pilot Project developed a model for a wellness program/ministry with a healthy eating and physical activity emphasis and vested Health Coordinators (HCs) to empower their congregation to make informed choices about these lifestyle habits.

But, the DC faith community has multiple competing priorities, and attention to wellness often lags behind because staff lacks knowledge, resources, and technical assistance. To establish the practices and empower the congregation to adopt and sustain healthy eating and physical activity habits, each faith organization needs to select and train HCs who will oversee the wellness activities and work directly with members of the congregation to adopt healthy behaviors. These HCs will need to be trained by a dietitian/nutritionist and receive ongoing technical assistance for success.

Working with LCHC, Health Coordinators were selected to implement this pilot project because they are trusted staff or volunteer leaders within the congregation, appointed by senior faith organization leadership, and mostly had health backgrounds. In seven monthly sessions, over an eight month time period, ABCD's dietitian trained a Health Coordinator in five congregations on the importance of adopting healthy eating habits, preparing healthy meals, and doing easy, daily physical activity. The first session was introductory and administrative, followed by six training sessions focused on nutrition and physical activity content. In turn, each HC held monthly sessions in their respective congregation educating participants on making healthy food choices, tracking consumption patterns, improving cooking skills, food shopping practices, and increasing physical activity. The HCs were also encouraged to share similar information through bulletin boards, newsletters, and other communication channels in their faith-based organizations on an on-going basis.

ABCD partnered with LCHC to implement the USDA, FNS, SNAP-Ed supported Healthy Body, Healthy Spirit Pilot Project at five faith institutions in Washington, DC that are part of the LCHC network. Priority communities were selected to help address the significant health, economic, and education disparity that exists among specific areas in the District. Wards 5, 7, and 8 have predominantly African American populations and the highest rates of diabetes, heart disease, overweight, obesity, unemployment, and participation in USDA nutrition assistance programs. These neighborhoods also experience low access to full-service groceries, rates of physical activity, and educational attainment. The specific faith-based institutions appear in the Table 1 below.

Table 1: Faith Institutions Participating in Pilot Project

Power in Sisters, Sister Power at Masjid Muhammad	Ward 5
New Morningstar Baptist Church	Ward 7
Johnson Memorial Baptist Church	Ward 7
St. Teresa of Avila Roman Catholic Parish	Ward 8
Union Temple Baptist Church	Ward 8

The estimated total impact of the HBHS Pilot Project included five trained HC, 106 participants who received intensive education, and a total of 2,500 general members of faith community (approximately 500 members per congregation) who benefitted from nutrition and physical activity promotion throughout the organizations. Although a total of 106 participants attended at least one session at one of the five institutions, attendance was not consistent at the five sites.

Justification for this Pilot Project

Why the faith-based community

There are a number of important benefits to using a faith community-based approach to encourage healthful behaviors and obesity prevention. Frequently, people look toward their faith communities for support in various aspects of their lives, including their health. Faith institutions and leaders often encourage the community to have a healthy mind, body, and spirit. The role the faith-based institution plays in priority communities differs from other programs because it becomes a central pivot for trusted information dissemination and peer bonds and networks that encourage and support.

Because social and physical environments in which individuals live, work, learn, worship, and play affect eating behavior and physical activity levels, altering these environments can effectively promote healthier diets and increased physical activity[1] . Community-based obesity prevention programs are also more cost-effective than traditional clinical treatment approaches[2]. One study estimates that in the District of Columbia, a $10 per person investment in a community-based prevention project could potentially result in a net savings of $57 million[3]. Finally, the World Health Organization suggests that using "passive" population-based approaches, such as environmental or policy changes, are of particular benefit to communities that have residents facing social inequities and health disparities[4].

Why the DC faith-based community

The District of Columbia reports a wide number of inequalities in incomes, employment, educational achievement, policy, clinical systems, and food and physical activity environments[5]. These disparities are most apparent in Wards 5, 7, and 8, with high prevalence of poverty, higher rates of diabetes, cardiovascular disease, stroke, and additional conditions related to poor nutrition. The faith-based institutions are trusted and are socially, physically, and spiritually embedded in the African American population in these wards.

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[1] Koplan J, Liverman CT, Kraak VA. Preventing Childhood Obesity: Health in the Balance. Washington, DC: National Academies Press; 2005.

[2] Rose G. The Strategy of Preventive Medicine. Oxford, UK: Oxford University Press: 1992.

[3] Trust for America's Health. Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities. Accessed July 28, 2008 at http://www.healthyamericans.org.

[4] Obesity: Preventing and Managing the Global Epidemic. WHO Technical Report Series No. 94. Geneva, Switzerland: World Health Organization; 2000.

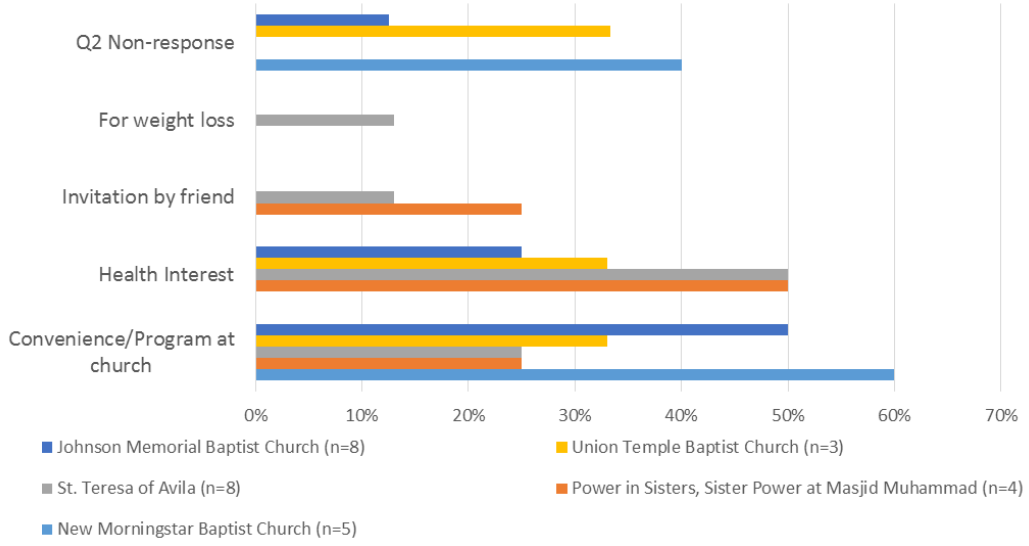
[5] DCDOH. *D.C. Community Health Needs Assessment, Volume 1*. Washington, DC. Feb 28, 2014.

Through the HBHS Pilot Project, 106 participants were documented and directly received self-management education on nutrition and physical activity from a trained HC. Though originally proposed, there was minimal involvement of children in the HBHS activities and workshops held at the faith-based institutions. The scheduling of youth activities at these faith-based organizations were much different than activities focused on adults. Merging the two groups proved difficult without adequate staff, volunteers, or childcare workers to keep both groups engaged with content at the appropriate levels. Many of the participants were older adults and grandparents and as they adopt healthier habits in their daily routine will naturally influence their children and grandchildren. In the DC community, grandparents often serve as caregivers for their grandchildren and are highly respected by other family and community members. Based on the final HBHS evaluations, participants were empowered to make appropriate behavior changes towards healthier eating and physical activity habits.

Motivators to Participate in the Pilot Project

Table 2 depicts the responses to an open-ended question asked in the final participant evaluation at the Recipe Rehab events. The majority of participants came to the HBHS program because of 1) convenience of having it at the faith-based organization and 2) health interest. The high percentage of participants citing convenience at their faith institution as the motivator for participating in the nutrition education and physical activity program supports this setting as an effective place for community-based and community-led intervention.

Table 2: Motivators to Participate in Health Body, Healthy Spirit Pilot Program



Goals and Pilot Project Accomplishments

1. **Goal:** An active wellness program with trained Health Coordinators that promotes healthy eating and physical activity for the congregation will be established in five diverse DC faith-based organizations and can be replicated in others.
   Achievement: The Healthy Body, Healthy Spirit Pilot Project has established an active wellness ministry with a trained Health Coordinator in five diverse DC faith-based organizations. Each faith-based organization is equipped with nutrition and physical activity curriculum and resources to promote and sustain wellness activities.

2. **Goal:** At least 200 families with children will receive self-management education on healthier shopping, cooking, eating practices, and physical activity by trained Health Coordinators or nutrition and physical activity experts (when available).

Achievement: 106 individuals engaged in specific education programming on healthier shopping, cooking, eating practices, physical activity, and self-management from a trained Health Coordinator at their faith institution. Additional congregants were educated through newsletters, bulletins, flyers, and additional outreach materials.

3. **Goal:** At least 125 families with children (62.5% of participants) will increase fruit and vegetable consumption by 1/4 serving daily, increase water consumption in place of sugar sweetened beverages, and decrease sodium and/or fat intake.
   Achievement: Due to inconsistent attendance at HBHS sessions and difficulties in data collection, there were not enough documented participants to do a follow-up evaluation measuring individual change in eating habits based on the nutrition questionnaire on dietary patterns. However, in the final evaluation 28 participants expressed learning more about nutritious food choices, healthy food preparation or appropriate portion sizes in a free response question. In a subsequent free response question, 'Have you made any healthy changes for you and/or your family since starting HBHS?,' 15 participants (52% of participants completing the final evaluation) expressed implementing better portion control and making better food choices.

4. **Goal:** At least 100 families with children (50% of participants) will increase frequency and/or intensity of weekly physical activity.
   Achievement: Due to inconsistent attendance at HBHS sessions and difficulties in data collection, there were not enough documented participants to do a follow-up evaluation measuring individual change in activity habits based on the physical activity questionnaire. However, in the final evaluation 13 participants expressed learning more about the importance of exercise. In a subsequent free response question, 'Have you made any healthy changes for you and/or your family since starting HBHS?,' four (14% of participants completing the final evaluation) described engaging in more regular exercise.

Pilot Project Deliverables

1. Training Curriculum for Health Coordinators
   Training curriculum from Department of Health and Human Services Eat Healthy, Be Active Community Guide and USDA MyPlate for My Family were adapted and given to each HC and HBHS faith institution. These community-level resources can be used to train additional HC in their congregation or in additional faith institutions. These free materials are available on the LCHC website, on the Health Coordinator page (http://lchcnetwork.org/health-coordinator/) for download. They include: a summary of the HBHS program, lesson plans with pre- and post-test, and a description of the recipe rehab event. Wellness ministries now have the tools to sustain more regular nutrition and physical activity sessions. Messages, materials, and activities can even be shared between faith institutions; promoting sustainability of the wellness ministries in DC's faith community.

2. Summary of Knowledge Acquisition
   According to self-reported assessments, participants increased their knowledge in the importance of nutritious foods: consuming more fruits and vegetables; eating less butter and salt; and the need for more regular physical activity. More details in later section.

3. Summary of Behavior Change
   According to self-reported assessments, participants changed their behavior throughout the program and identified these improvements: using new skills to make better food choices and having a stronger spiritual connection. More details in later section.

4. Summary of Best Practices
   Some of the essential elements in faith-based community work include: being flexible, validating in advance appropriate assessment tools, and developing a systematic data collection process that avoids respondent burden. It is also important to recognize the level of access to technology as well as the audience comfort level and sensitivities to disclosing personal information. More details in later section.

5. Summary of Recommendations for Implementing a Faith-based SNAP-Ed Program
   Working with a well-respected organization with ties to the faith-based community allowed for successful entry into the setting and greater commitment to the program. Providing funding for the time of the HC and/or space utilized at the faith-based institution and incentives for participants are critical to building mutual respect and long-term relationships with this audience. More details in later section.

Successful Strategies

A. <u>Collaboration with existing local partners to enhance the pilot project</u>

1. LCHC – LCHC is a well-respected organization that has built a tight-knit alliance of Christian and Muslim leaders and health professionals from the priority neighborhoods in DC to address the high prevalence of HIV among African-Americans as well as other health disparities, including chronic diseases and respiratory illnesses. Since 2011, LCHC has partnered with ABCD to lead the Coalition for Wellness in the faith-based community that includes representatives from the academic sector, the DC Department of Health (DOH), key nutrition and physical activity community groups, hospitals, health professionals, and additional representatives from Catholic and Jewish organizations. Partnering with LCHC was essential to being welcomed at these faith institutions and developing long-lasting, meaningful, and productive relationships that builds their capacity to sustain nutrition and physical activity as a priority at their site.
2. DC SNAP-Ed agency - The local DC SNAP-Ed agency was excited to learn of nutrition education and physical activities happening in faith communities and decided to partner with HBHS. It sent a staff dietitian and a SNAP-Ed educator to deliver a nutrition education training session to the HCs on the MyPlate for My Family curriculum. Each participating faith institution received colored copies of the lesson packets to share with participants to keep at their faith institution for reference, and to promote sustainability of the wellness ministries.
3. DC Central Kitchen (DCCK) - ABCD partnered with DCCK Healthy Corners Program to promote healthy corner stores in Wards 5, 7, and 8. DCCK provided promotional flyers, postcards that spotlight seasonal produce with recipes, and nutrition information that the HC gave to participants at their congregations. DCCK also shared 'Freggie Bucks' that were distributed to participants and could be used to buy $3 worth of fruits and vegetables at a healthy corner store. ABCD encouraged HCs and participants to enroll in DCCK healthy tips email and text program with their email address or cell phones for motivating text messages.
4. Certified Personal Trainers (CPT) – Two of the participating institutions had CPT as members of the congregation who were invited to lead stretching and workout sessions for HBHS. The HCs reported that this in-kind contribution from a professional really helped to elevate the sessions and motivate participants. Each faith-based organization hosted low or no-cost physical activity sessions and integrated mini-sessions for participants throughout the program. Neighborhood walks were held in warm weather, and workout videos and hand dance classes have also been paired with HBHS sessions.
5. Anticipated Collaboration with University of the District of Columbia (UDC), Howard University (HU), and American Heart Association (AHA) –
   ABCD had a long-term collaborative agreement with UDC, HU, and AHA to put on the Nutrition Connection for Good Health Program. This one-day program focused on nutrition education and

training for culinary and hospitality staff in community settings, such as faith institutions. ABCD had been quite successful in the past in recruiting faith institutions to attend and adopt healthier meal service and vending options. Unfortunately, the Nutrition Connection for Good Health Program was unexpectedly cancelled by the universities. ABCD encouraged faith organizations to participate in the 6-week course, Cook, Shop, and Live Healthy, sponsored by UDC Extension Center for Nutrition, Diet and Health. This course focused more on individual behavior changes instead of environmental policy that could influence the community.

6. YMCA – ABCD collaborated with the historic Anthony Bowen YMCA to hold the Recipe Rehab event for one of the faith institutions. The Y has a new culinary studio and was excited to share it with the community and support nutrition education. This partnership also served to promote the newly renovated Y as a great resource in the community.

B. <u>Use of the "train the trainer" format empowered HCs to own and implement the HBHS Pilot Program at their institution</u>

1. Identify the right trainer
   The Registered Dietitian's (RD) or nutritionist's role is to deliver technical assistance during the trainings and oversee the program administration. The RD needs to be experienced in a community setting, familiar with group nutrition education materials, and have knowledge of behavioral change process and motivational interviewing. Another necessary, more intangible quality is an understanding of faith-based environments, competing priorities, and economic conditions in the communities. This allows realistic expectations to be set.
2. Identify the right faith-based institutions
   Commitment and buy-in from the faith leaders must be paired with a stable setting, if possible. Unanticipated or sudden leadership changes and focuses on competing priorities like developing new ministries or relocation to another building arise and require a large amount of time and attention from faith leaders and congregants. In these cases, it is better to wait until these important endeavors are completed before starting a long-term nutrition education and physical activity program.
3. Identify the right group of trainees
   LCHC Health Coordinators were selected by senior faith leadership because they were trusted staff or volunteers within the congregation, and most had health backgrounds. They were also comfortable leading a group and motivating their community to make healthy changes. HCs with additional roles in their faith-based organization may have scheduling conflicts that arise with trainings, even at the last minute. This absence may require the RD or SNAP-Ed staff to step in and co-teach some of the participant sessions at that site.
4. Assessing Health Coordinator knowledge
   At each of the six monthly training sessions HCs completed a pre- and post-training test to show their baseline understanding on the material as well as mastery of the physical activity and nutrition topic. HCs were expected to score at least 80% on the post-test at each training session. Each pre-test had about eight questions, and HCs had an average score of 69%, however the mode was 88%, illustrating a wide variability in initial knowledge of nutrition and physical activity. There was a demonstrated improvement between the pre- and post-training quiz results, showing the HCs engagement and understanding of material. Average scores for post-tests were 88% with the most frequent number being 100%. All of the HCs that attended a full session and completed a pre- and post-session quiz reached the targeted outcomes. To note, there was one that did not complete both quizzes at two sessions, either left early and only completed the pre-test or arrived late and only completing the post-test. This HC did not meet the goal of scoring 80% on the post-test at each training session.

5. Monitoring progress
   Health Coordinators submitted monthly reports to ABCD and LCHC and shared activities, successes, barriers, technical assistance (TA) requests, suggestions, and future plans. ABCD developed a simple tool to assess the effectiveness of format, content, and efficacy of HC training sessions. This tool was included in a section of the Health Coordinator monthly report and was reviewed throughout the pilot for quality improvement. HCs appreciated the ongoing TA and moral support from the RD throughout the program.
6. Ongoing technical assistance
   Throughout the HBHS Pilot Project, ABCD developed a personal relationship with HCs through consistent communication and TA. HCs made requests in a variety of areas including; strategies for engaging more participants, craft supplies to decorate bulletin boards and HBHS display tables, and additional customization for sessions at each faith institution. This enabled ABCD to understand more about each HC style and their faith institutions, and to compile interactive educational materials to engage participants. Based on the budget allotted for TA, it was a barrier at times to provide the level of TA needed as each institution had varying resources, capabilities, and space.

C. <u>Deliver tailored information in a meaningful way</u>
   1. When the RD/nutritionist is familiar with the setting, the curriculum can be taught in a way that folks will act on the suggested behavior changes.
   2. Likewise, each HC shared the lessons in a way that would resonate with their congregants.
      i. Using the HC model provided the opportunity for targeted motivation for each faith community. Because of technology constraints, participants were unable to utilize the SuperTracker feature with motivating nutrition emails. A few of the faith institutions adopted motivating themes and messages to inspire their participants through the HBHS program, including:
         1. Union Temple – Boa Me Na Me MMoa Wo (West African symbol of cooperation and interdependence, “Help me help you”)
         2. St. Teresa of Avila – “It’s better being a poor person with a healthy body then a rich person with poor health” and “The fruit of your own hard work is the sweetest”
      ii. ABCD worked with HBHS faith organizations individually to implement policies from the *Wellness Guidance for Policies and Programs for the Faith Based Community*[6].
         1. One policy all the participating faith organizations were able to implement was water being offered as a beverage for all wellness activities. Water was typically served in bottles for convenience and was perceived as good way to ‘practice what you preach’.
         2. Offering healthy snacks/meals for HBHS sessions was another policy implemented at the faith institutions. HCs applied their knowledge from MyPlate education materials as guidance to define healthy food choices.
         3. There is interest from faith community leaders to adopt additional wellness policies, as well as starting or participating in community gardening and hosting

[6] DCDOH and ABCD *Working for a Healthy Community: Wellness Guidance for the Faith Community*. Washington, DC. September 2012.

farmers markets. Though beyond the time resources allocated in the pilot, healthier environments and policies are primed to be a focus for expanding the HBHS concept and enhancing sustainability.

D. Adapting existing materials, program schedule, and assessment tools to maintain relationships and "buy-in" from the HC and congregation

1. This pilot program sought to use existing free resources created by federal agencies that could be reprinted and stay with the faith institutions. ABCD selected topics and educational approaches that would be effective with target population. Nutrition and physical activity education curriculum and materials from Department of Health and Human Services (DHHS) *Eat Healthy, Be Active Community Guide* and *USDA MyPlate for My Family* were adapted or enhanced for the HBHS pilot.

a. The DHHS lessons were quite lengthy and the instructor's guide was too high of a reading level for the HBHS format. ABCD condensed the lessons and simplified the language. The handouts that accompanied these lessons were very well received, especially "Small changes can make a large difference". The two lessons utilized from DHHS were:
   i. Healthy Food Can Taste Great
   ii. Quick and Healthy Meals, and Snacks

b. The process of adapting the DHHS material proved to take too much time, so an executive decision was made to switch to the USDA SNAP-Ed *MyPlate for My Family* curriculum. Initially this curriculum was seen to have too much focus on youth. These materials were at a much more appropriate reading level and did not require text adaptations. The DC SNAP-Ed agency supported the switch and provided curriculum packets for each institution. Lessons utilized from the *MyPlate for My Family* curriculum included;
   i. How Much Food and Physical Activity?
   ii. Vegetables and Fruits – Simple Solutions
   iii. MyPlate Family Meals

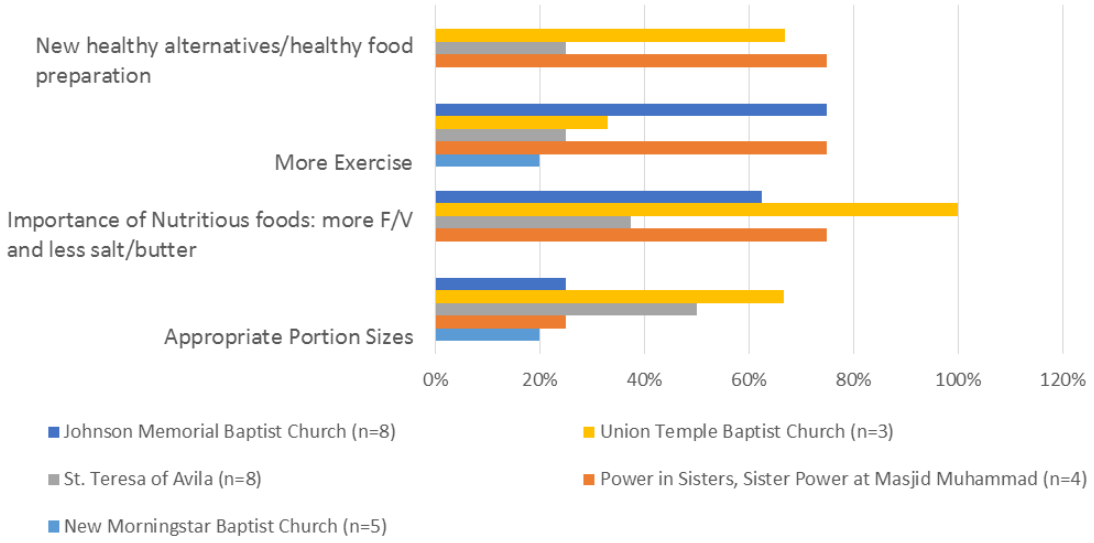
c. ABCD created a few materials and a lesson to enhance the HBHS program.
   i. As part of training, participants had the opportunity to share specific nutrition and physical activity inquiries and topics of interest. ABCD prepared five FAQ documents to help HC answer participant questions on popular nutrition topics, such as: Lean Proteins, Whole Grains, Gluten-Free, Food Safety, and Physical Activity. ABCD was careful not to put participants at risk of receiving nutrition advice from those not credentialed, and worked with HCs to offer additional USDA or HHS materials that covered additional topics of interest. Health Coordinators documented healthy eating and physical activity topics covered in the monthly reports.
   ii. ABCD also compiled USDA food safety resources into handouts for a HC training session and to be shared with congregants.

Results of HBHS Pilot Program

Knowledge Acquisition

Table 3 below depicts the responses to an open-ended question asked in the final participant evaluation at the Recipe Rehab events. The inconsistent attendance at each faith institution and different participants at sessions may have influenced these responses. Not everyone who attended a HBHS session was at the final event to complete the evaluation. Session topics covered with participants included: Healthy food can taste great, Quick and healthy meals and snacks, How much food and physical activity, Vegetable and fruits- simple solutions, Food safety, and MyPlate My Family meals. Participants listed three things they learned through the six monthly HBHS sessions that they can use to improve their eating and physical activity habits. Participants cited 1) Importance of nutritious foods, 2) incorporating more exercise, and 3) healthier alternatives and healthy food preparation as the new skills acquired.

Table 3: Knowledge Gained through Healthy Body, Healthy Spirit Pilot Program



Demonstration of Knowledge at Recipe Rehab Final Event

ABCD collaborated with the HCs to plan and implement the culmination event: Recipe Rehab. This session was designed as an opportunity for participants to showcase their new nutrition knowledge and skills gained through the HBHS Pilot Project. While the HCs were excited about the competition-style event, coordinating an agreeable date and location with large enough kitchen facilities presented obstacles. Each faith-based organization hosted separate Recipe Rehab events where participants made healthy and creative changes to traditional recipes, demonstrated nutrition knowledge to win prizes, and shared sustainable behavior changes they had made since starting the HBHS Pilot Project. The events ranged from 2 to 4 hours depending on the number of attendees and what type of recipes they were 'rehabbing'. Peanutty African stew, tasty tots, sweet potato custard, and pineapple zucchini cake were some of the USDA Mixing Bowl recipes that were prepared. In preparation for the Recipe Rehab, HCs posted flyers and gave announcements in ministry meetings. This celebratory event attracted many newcomers 'who were curious to see what all the excitement was about', as one HC reported. The HCs provided a brief nutrition education recap of the topics covered throughout the program. Participants appreciated having an audience to taste the healthy recipes they prepared and encouraged others to make small changes to improve their health. ABCD assisted in whatever capacity was needed to put on a successful event; this event was different at each faith institution.

Participants' Behaviors Changes

ABCD planned to do an analysis of the SuperTracker data from families participating in the proposed HBHS Pilot Project. These data would have allowed for a quick electronic assessment of at least one of the following behavior change metrics: diet, physical activity, and weight. Because of the limited technical access and capabilities of the facilities and participants, validated paper-based nutrition and physical activity questionnaires were administered instead. The Rapid Eating Assessment for Participants – shortened version was utilized for the nutrition questionnaire as it was designed to quickly assess the dietary and eating habits, particularly in a low-literacy population. The International Physical Activity Questionnaire was used to monitor frequency and intensity of physical activity that participants engaged in the previous seven days.

Although the HBHS pilot sought to gather population level data, the technology limitations, highly diverse time commitments, attendees, and staffing at each site led us to assess participant behavior change at each faith institution individually.

The results below do not represent changes in individual behaviors but changes in group behaviors at each location from the first session to the final session. Analysis of these data indicated the progress towards meeting identified objectives.

St. Teresa of Avila Roman Catholic Parish

Nutrition

Of the 57 community members at St. Teresa of Avila Church,

- Initially 33% of the sample ate at home regularly and by the end 59% of the participants ate at home regularly, a 26 percentage point difference and movement away from eating out.
- At point one, there were 17% of the participants rarely adding salt to foods and at point two, it changed to 55% rarely adding salt, a drop of 38 percentage points in sodium users.
- At the beginning, 17% of the participants were eating less than the recommended amount of fruits and, at the final session, 25% were eating less than the recommended amounts, a 25% difference in consumption of fruits over 7 months.
- Additionally, the data showed that initially 33% of the participants rarely ate fried foods and that climbed to 35% rarely ate fried foods by the final session.
- 17% of the participants from the initial session do not add butter and oils to their foods regularly and 69% of the participants from the second session rarely add butter and oils to their foods, demonstrating a large difference in variables.
- At the first session, 67% of the participants drank little to no sugary beverages and at the final session 83% of the participants rarely regularly drank sugary beverages.
- No changes from the first to the last session were noted in the amount of vegetables consumed or in the frequency of eating processed foods.

Physical Activity

There was a significant difference in the frequency and duration of vigorous and moderate physical activities. At the first session, the average of participant data showed 2 days of vigorous physical activities for 22 minutes per day each week and approximately 3 days of moderate physical activities for 36 minutes per day. At the last session, participants did 2.2 days of vigorous physical activities for 41 minutes per day and approximately 4 days of moderate physical activities for 53 minutes per day. Additionally, at the beginning session, participants walked 4 days for 30 minutes per day while at the final session participants walked 6 days for 45 minutes each day.

These noteworthy results in positive behavior change at St. Teresa of Avila Roman Catholic Parish are a reflection of the dedication of the HC. She demonstrated great passion for the program and was creative in implementing HBHS, leading her community to adopt healthier habits.

Johnson Memorial Baptist Church

Nutrition

At Johnson Memorial Baptist Church, there were a total of 21 community members that received direct education from the HC.

- At first session, 20% of the participants ate the recommended amounts of fruits per day while at the final session, 36% of the participants ate the recommended amounts of fruits, a 16% difference between the first and final session.

- For participants not adding butter and oils to food, the first session noted 40% and the final session recorded 55% of participants.
- No difference was noted in the percentage of participants eating out or in their consumption of processed foods, fried foods and salt.
- Notably, around 70% of the participants ate low fat processed meats instead of regular processed meats and around 83% of the participants ate low-fat healthier snacks instead of junk foods at the initial session.

Physical Activity

At Johnson Memorial Baptist Church, there was a difference in the time spent on moderate physical activities. At the first session, participants averaged 3 days of vigorous physical activities for 44 minutes per day each week and approximately 4 days of moderate physical activities for 31 minutes per day. At the last session, participants did 2.6 days of vigorous physical activities for 41 minutes per day and approximately 1.5 days of moderate physical activities for 34 minutes per day. Furthermore, at the beginning session, participants walked 5 days for 30 minutes per day while at the final session participants walked 4 days for 38 minutes each day. There was little to no changes in the time spent on vigorous physical activities from participants in first session and the last session.

Of note, the HC at Johnson Memorial missed three training sessions and did not receive the full complement of materials in the way intended. She also had difficulty scheduling consistent participant sessions at the faith institution due to extenuating circumstances, and only held three participant sessions. These factors influence the delivery of HBHS and likely the level of nutrition and physical activity behavior change recorded.

Power in Sisters, Sister Power at Masjid Muhammad

Nutrition

There were 18 participants that completed the nutrition survey and monitored their diets.

- In 67% of participants, sodium consumption was high and vegetable and fruit consumption were low at both the initial and final sessions. There were no changes in the percentage of people eating processed foods at first and final sessions.
- At the first session, 78% of the participants ate at home regularly and at the final session 67% of the participants ate at home, which was an 11 percentage point difference. It is unclear why this shift to eating out occurred, but this should be explored more for future nutrition education efforts.
- In a positive shift, 56% of the participants added butter and oils to their food 5-7 times per week at the beginning and only 33% of the participants added butter and oils to their food 5-7 times per week at the end. 11% of the participants added butter and oils to their foods 2-4 times per week at the first session while at the final session, 33% of the participants added butter and oils to their foods 2-4 times per week, shifting their consumption down from the 5-7 times a week category.

Physical Activity

At Masjid Muhammad, there was a negative change in the number of times per week and average minutes per day participants did vigorous and moderate physical activities. At the first session, participants did 3 days of vigorous physical activities for 27 minutes per day and approximately 4.3 days of moderate physical activities for 52 minutes per day. At the last session, participants did 1 day of vigorous physical activities for 20 minutes per day and approximately 3.3 days of moderate physical activities for 17 minutes per day. Additionally, at the beginning session, participants walked 4.7 days for 43 minutes per day while at the final session, participants walked 5 days for 20 minutes each day. This negative shift is puzzling, as Masjid Muhammad had a CPT do a focused fitness session to encourage participants to get active.

Union Temple Baptist Church
The figures below reflect data collected by ABCD at the final session. This was the only data point properly collected from the participants at Union Temple.

Nutrition
Five community members participated in the program at Union Temple Baptist Church.

- At the end of the program, 80% of the sample ate at home regularly.
- 40% of the participants added salt to foods regularly and 40% of the participants consumed high sodium processed foods.
- There were 60% of the participants that ate less than the recommended amount of fruits and 100% of the participants ate less than the recommended amount of vegetables.
- However, 60% of the participants rarely ate fried foods and use low-fat processed meats instead of the regular options.
- Notably, 80% of the participants drank little to no sugary beverages.

Physical Activity
At Union Temple Baptist Church, participants did 1.4 days of vigorous physical activities on average for about 15 minutes per day and 3 days of moderate physical activities for 29 minutes per day. Participants walked 4.4 days a week for approximately 22 minutes per day.

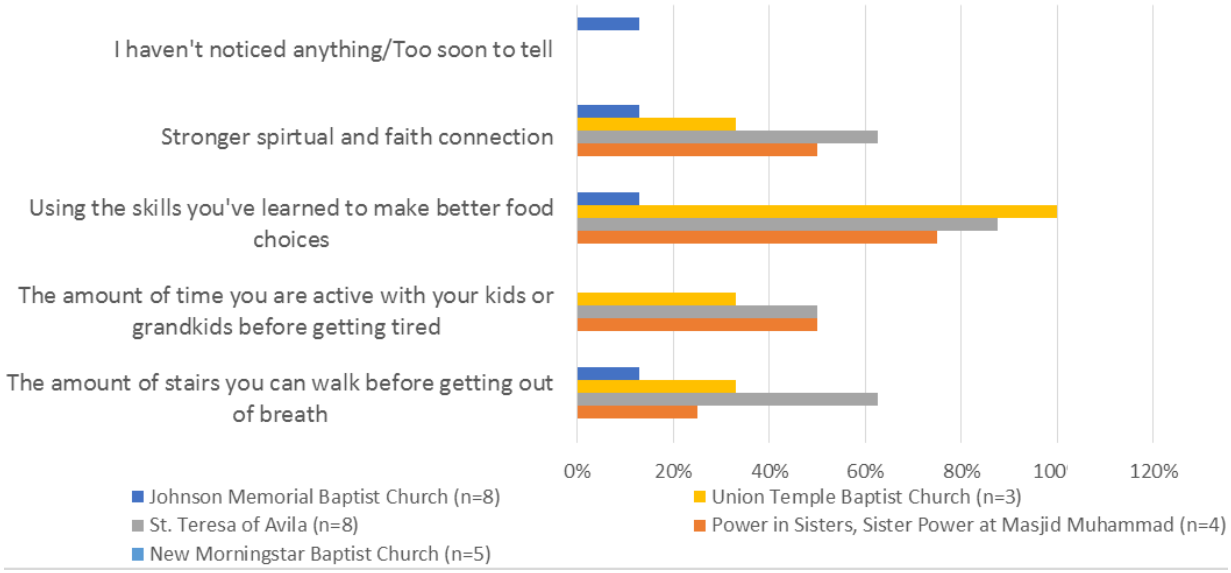
New Morning Star Baptist Church
The figures below reflect data collected by ABCD at the final session. This was the only data point properly collected from the participants at New Morning Star.

Nutrition
- Of the eight community members at New Morning Star Baptist Church, only 38% of the sample ate at home regularly.
- However 88% of the participants did not add salt to foods regularly and 75% of the participants did not consume high sodium processed foods.
- While only 63% of the participants ate the recommended amount of fruits and vegetables, 63% of the participants also used low-fat cold cuts over the high-fat processed meats.
- In addition, about 38% of the participants rarely ate fried foods, 50% of the participants didn't add butter and oil to foods and 50% of the participants drank little to no sugary beverages.

Physical Activity
At New Morning Star Baptist Church, participants in the final session averaged 1.4 days of vigorous physical activities for about 9 minutes per day and 2.6 days of moderate physical activities for 41 minutes per day. Participants walked 3.5 days a week for approximately 15 minutes per day.

Table 4 illustrates the responses to a final evaluation multiple choice question in which participants selected all the improvements they've noticed since starting HBHS and changing their behavior. The largest percentage of participants saw an improvement in using their skills to make better food choices. At two of the faith institutions, there was a large portion of non-responses to this question, which correlates with the lack of data collected at these two sites.

Table 4: Improvements Noticed after Healthy Body, Healthy Spirit Pilot Program



Health Coordinators Behavior Changes

Nutrition

A nutrition survey was completed by the HCs to track their own diets and lifestyle habits. At Union Temple Baptist Church, there was a reduction in the number of times the HC ate out from "2-4 times per week" to "0-1 times per week" while also reducing her soda consumption from "5-7 times per week" to "2-4 times per week." However, there was no behavior change in her eating of regular processed meats, processed and fried foods, junk foods, sodium levels, eating adequate amount of fruits and vegetables, and cooking with butter/oil.

At New Morning Star Baptist Church, there was no observable behavior change with the HC; however, she already has a healthier diet, prioritizing fresh foods to processed high sodium foods, eating the recommended vegetable portions each day, not adding butter/oil to foods, and usually eating low fat processed meats.

At Johnson Memorial Baptist Church, the health coordinator was already eating most of her meals from home, low sodium foods, healthier snacks, and adding little/no butter and oils on food. She started eating the recommended amount of fruits, ate low fat processed meat more frequently, and decreased her intake of fried foods. Notably, she still drinks sugary juices and sodas "2-4 times a week" and does not eat enough vegetables.

At St. Teresa of Avila, the HC had a huge shift in her diet to decreased use of high sodium processed foods and started consuming more fruits and vegetables per week. She also decreased consuming junk food, started seeking healthier alternatives for snacks, and added less salt and butter/oils. She was already eating home-cooked meals often, consuming healthier meats, and avoiding sugary beverages.

The HC at Masjid Muhammad also eats home-cooked meals, low fat meats, and limits her sugary drinks. While, no behavior change has been noted on her eating fried foods "2-4 times a week," she has improved her diet by rarely eating processed foods, eating vegetables more frequently, and finding healthier snacks as an alternative to junk foods.

Physical Activity

Each HC also monitored their physical activity throughout the HBHS Pilot Project.

At Union Temple Baptist Church, the HC increased the number of days spent on vigorous and moderate exercise per week but decreased the time spent on these activities. While there was a reduction in the number of days she walked at least 10 minutes, she increased the total time spent walking each week.

At New Morning Star Baptist Church, the HC increased the number of days spent on moderate physical activity and continued to do vigorous activity twice per week. There was also an increase in days she spent walking for at least 10 minutes from 4 days to 7 days per week.

The HC at Johnson Memorial Baptist Church noted a decrease in days spent walking at least 10 minutes, however, she increased the days and time spent on vigorous and moderate exercise.

At St. Teresa of Avila, no change was noted in any of the variables for this healthy, active HC; however, she already spent 6 days a week, averaging 45 minutes a day on moderate and vigorous physical activities.

At Masjid Muhammad, the HC had fluctuating frequency and duration of physical activity at each point she was surveyed. Comparing the initial and the final points of the survey, there was a decrease in the moderate and vigorous exercise and in days spent walking for at least 10 minutes per week.

Sustaining Faith-Based Wellness Programs

The Healthy Body, Healthy Spirit Pilot Project in Washington, DC was successful in establishing active wellness programs that promote healthy eating and physical activity in five diverse DC faith-based organizations. This model, with trusted HC at the core, can be replicated in other faith-based organizations throughout DC and in additional cities with strong faith centers. As the USDA moves forward with future initiatives in the faith-based community, the following are essential to consider in developing effective strategies.

Through this pilot project, ABCD learned what strategies were successful and corrected approaches along the way.

<u>Summary of Best Practices</u>

1. Maintaining flexibility by understanding that nutrition and physical activity can often be secondary to the spiritual activities, which are at the core of faith institutions
2. Using a validated, appropriate, low-literacy assessment tool
3. Implementing systematic data collection without heavy respondent burden
4. Recognizing limited technology access and comfort of institutions and congregants to use technology
5. Recognizing sensitivities to disclosing weight, personal waist measurements, income, or participation in federal nutrition programs

<u>Successful Strategies</u>

- Using the LCHC faith-based Health Coordinator model proved to be an effective approach to engage the African-American faith community in nutrition and physical activity education program in Wards 5, 7, and 8 in Washington, DC. This model could be replicated in other jurisdictions with similar demographics and an African American faith community that has commitment from senior leadership to be a catalyst in improving the health of their flock.
- Providing technical assistance on a weekly basis is critical to keeping HCs engaged in program activities and showing support as they lead their faith communities in healthier behavior changes. Weekly communications allow a relationship to develop and can alert one when issues arise so they can be resolved as quickly as possible.
- Serving an affordable healthy dish or snack at each session was an effective nutrition education tool in training the HCs. HCs tried new ingredients, new preparations, and often asked for the

recipe to prepare for their family and share with participants in their congregation. Many dishes were inspired by the USDA Mixing Bowl and included cost and nutrient analysis.

- Flexibility in scheduling is also an important consideration, as most of the HC trainings, faith-based activities, and technical assistance calls take place outside of normal business hours. It was quite helpful to have a vehicle to quickly move around the city to the various faith-based organizations and carry supplies to training sessions and activities.
- For each HC, there was a trial and error period in finding the best time or securing space to hold the HBHS events and get consistent attendance. These are the times that worked best for the faith institutions participating in the pilot program:
    - Wednesday night before Bible study
    - Sunday right after each service
    - Saturday afternoon before prayer
    - Monday night before joint fellowship
- For the HCs that were able to get a brief section on the HBHS program into the monthly bulletin or announced during the Sunday service, there was more consistent turnout at their sessions. ABCD provided a portfolio of promotional flyers, messages for bulletin boards, and participant sign-up forms at the first HC training session.

<u>Adaptations for Implementing Future Faith-Based SNAP-Ed Programs</u>

1. A more systematic data collection process would be beneficial when conducting a similar program:
    - Utilize a validated survey instrument that combines nutrition and physical activity assessments, is appropriate for low-literacy audiences, and is no more than one page.
    - Ensure that surveys from each faith institution are placed into dated folders when they are received.
    - During weekly communications, remind HC the importance of collecting the required data at each HBHS activity.
    - Provide a checklist for HCs to use during each session that lists the data that need to be collected and can serve as an additional reminder.
    - Many of the participants had “survey fatigue” and several of the surveys received were either partially complete or never returned. Many of the nutrition and physical activity surveys lacked a date, which made it difficult to properly assess progress throughout the program.
    - Some of the nutrition survey questions were perceived to be confusing and several participants did not know how to answer them. ABCD decided to edit the survey and shift from categorical answers of ‘rarely/never’, ‘sometimes’, or ‘usually/often’ to numerical references per day “0-1 times per week”, “2-4 times per week”, or “5-7 times per week” to be more specific and limit subjectivity in answers. This may have influenced the data collected.

2. The faith institutions that participated in the HBHS Pilot Project are in older buildings around the city, and there are limited technology resources like Wi-Fi. This proved to be a huge barrier in implementing the program, as Super Tracker was a foundational element for data collection, motivational feedback to participants, and self-management. ABCD developed contingency plans to continue without the internet-based tool, but this change required quite a bit of effort and creativity.
3. Partnering with an organization structured like LCHC to provide funding for the HCs time and/or space utilized at the faith-based institution and incentives for participants is an effective demonstration of respect and efforts to building long-term relationships. Many organizations in these communities have ‘been studied’ numerous times without long-term commitment for capacity building or tangible benefits.

4. While the USDA-supported budget for this pilot included program materials, it was difficult to stretch resources to sustain an 8-month program at five different sites with each site varying in resources, needs, capabilities, etc.
5. ABCD developed a protocol and tracking sheets to document weight measurements. When this was initially presented to HCs, they thought participants would have some aversion, but they gave it a try. Most participants appreciated the ability to measure their weight, but would not allow the HC or ABCD to record their weight. The contingency action was to provide materials and protocol for measuring waist circumference. This assessment also proved to be an unpopular idea and ABCD was unable to gather this participant data. The HCs suggested some assessment methods to utilize in the future:
    - Having the scale available at four activities for participants to weigh themselves. Participants record how their weight has shifted since the last weigh in by writing an up arrow or down arrow, followed by the number of pounds
    - Assigning each participant an ID number at their first session, and then allowing them to record their weight next to their ID number at each session
    - Asking more questions that could be indicators of weight with behavioral questions (i.e., Do your close fit differently?, Has your stamina increased or decreased?, or Are you short of breath when you exercise?)
6. It was anticipated that participants would engage in self-assessment of healthy eating and physical activity behaviors and provide data to the HCs through Super Tracker updates. This approach was difficult because many of the faith institutions did not have Wi-Fi, so online demos and hands-on activities with USDA Super Tracker were not feasible. The technical aspects of the Super Tracker tool did not resonate well with this audience. Feedback from the HCs also informed ABCD that the system was too cumbersome to use and teach many of their older participants. The computer-based tracking of food and physical activity was seen as too burdensome – a cell phone-based app may have received a better response. Some participants had used other food and activity tracking apps on their cell phones or through wearable technology.
7. Participants were encouraged to take photos to document the implementation of healthy eating and physical activity habits and demonstrate self-efficacy by sharing them with family and friend. Perhaps this activity would have been more popular with a younger group of participants who are more likely to share photos with their families and friends. ABCD photographed wellness activities throughout the pilot, and shared them with the HCs at the faith institutions.

Looking Ahead

Transition from a one-time pilot project at these faith-based institutions to sustainable wellness ministries does not happen automatically. The District of Columbia is fortunate to have many nutrition and health organizations willing to share resources and occasionally provide technical assistance to faith-based organizations. Faith leaders should be reminded of the resources provided during the project, new partnerships available, and reconnected with the local SNAP-Ed agency tasked with community nutrition in a variety of settings. ABCD was pleased to build capacity, change nutrition and physical activity behaviors, and empower the DC faith community to prioritize achieving and maintaining a healthy body and healthy spirit. ABCD urges USDA to support additional nutrition and physical activity education and wellness ministries in the faith-based community that utilize a model like LCHC Health Coordinators, offer longer periods of training, and provide on-going technical assistance by a dietitian/nutritionist.