Effective Program Practices Guide

Innovative Approaches to Help Improve Heart Health at the Community Level
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- Howard Hutchinson, MD, FACC
- Raymond Parisi, Jr.

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A special thank you to the awardees, noted in bold below, who reviewed and contributed to their program information featured in the Effective Program Practices Guide.

Connections for Cardiovascular Health℠-Funded Organizations, 2010-2018, with Age-Adjusted Heart Disease Mortality Rates

Connections for Cardiovascular Health℠ Grant Awardees (Current and Previous)

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FLORIDA
Florida Hospital Heartland Medical Center (Sebring, FL)
University of Miami Miller School of Medicine (Miami, FL)

GEORGIA
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North Georgia HealthCare Center Inc. (Ringgold, GA)

ILLINOIS
Asian Health Coalition (Chicago, IL)
Family Focus (Chicago, IL)
HSHS St. John’s Hospital (Springfield, IL)
Presence Hospitals PRV dba: Presence Covenant Medical Center (Urbana, IL)
UnityPoint Health: Trinity Medical Center (Moline, IL)

KENTUCKY
Ashland-Boyd County Health Department (Ashland, KY)

LOUISIANA
Sankofa Community Development Corporation (New Orleans, LA)

MAINE
Cary Medical Center (Caribou, ME)

MARYLAND
Chesapeake Charities Inc. (formerly Foundation for Community Partnerships) (Stevensville, MD)
Saint Agnes Foundation (also known as Saint Agnes Hospital Foundation, Inc.) (Baltimore, MD)

MASSACHUSETTS
Boston Medical Center (Boston, MA)
Whittier Street Health Center (Roxbury, MA)

MICHIGAN
Allegiance Health Foundation (Jackson, MI)
Catherine’s Health Center (Grand Rapids, MI)
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SOUTH DAKOTA
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TENNESSEE
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TEXAS
Cornerstone Assistance Network (Fort Worth, TX)
El Buen Samaritano Episcopal Mission (Austin, TX)
Scott & White Memorial Hospital (Temple, TX)
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Table of Contents

About this Guide 8

Designing and Implementing Innovative, Community-Based Health Interventions 9

Top Ten Effective Practices of Community Health Programs 14

Innovative Approach #1
Leveraging Access for Uninsured/Underserved Participants to Improve Cardiovascular Knowledge and Health 22

Innovative Approach #2
Bringing Programs to Participants 31

Innovative Approach #3
Educating Children to Serve as Heart Health Ambassadors 41

Innovative Approach #4
Improving Cardiovascular Health through Food-Based Programs 50

Innovative Approach #5
Using Health Coaches/Promotores to Improve Cardiovascular Health 59

Innovative Approach #6
Providing Culturally Sensitive Program Interventions to Maximize Participant Outcomes 69

APPENDIX 81

Resources 81

Useful Websites 81

For More Information 95

References 96

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The AstraZeneca HealthCare Foundation has received a total of $33 million in charitable contributions from AstraZeneca Pharmaceuticals in support of the Connections for Cardiovascular HealthSM program since it was established in 2009.
In 2010, the AstraZeneca HealthCare Foundation (AZHCF) launched the Connections for Cardiovascular HealthSM (CCH) program to address the nation’s leading cause of death. Since then, it has provided grants totaling nearly $23 million to U.S.-based nonprofit organizations and fostered capacity building to help improve heart health in communities across the United States. With the aim of sharing lessons learned from this work, the AZHCF enlisted our external evaluation partners at the Center for Social and Economic Policy Research at West Chester University of Pennsylvania to analyze data from over 50 funded programs. From that work, six innovative approaches commonly used by Grant Awardees to help improve cardiovascular health at the community level emerged, along with their key learnings and challenges.

The Effective Program Practices Guide explores these collective learnings and challenges and is intended to serve as a resource to organizations, like yours, that are interested in developing or strengthening their own cardiovascular (CV) or community-based programming. We encourage you to start with Designing and Implementing Community-Based Health Interventions, which provides lessons learned and recommendations for program development and execution based on what we learned from our most successful programs. Our aim is that you will then identify the innovative approach and corresponding section that best fits your program or community and adopt and modify it to your work.

On behalf of the AstraZeneca HealthCare Foundation and our Grant Awardees, we hope you will find this Guide to be useful in your efforts to help improve heart health for individuals and families in your community.

Sincerely,

James W. Blasetto, MD, MPH, FACC
Chairman
AstraZeneca HealthCare Foundation

Rich Buckley
President
AstraZeneca HealthCare Foundation
Designing and Implementing Innovative, Community-Based Cardiovascular Health Interventions
Introduction

**CCH** has supported community programs in a variety of program settings and geographic locations, largely serving vulnerable and disadvantaged populations across various racial and ethnic compositions and socioeconomic status. Although the work of the **CCH** program has been centered on improving CV health, many of the **CCH**-funded programs used broader community health intervention practices, and the lessons shared in this section serve as an overarching framework that can be used to design similarly innovative and targeted community health interventions. Recommendations for program development and execution are offered through an evaluative lens and are intended to ensure program sustainability and continuous improvement. Additional resources for community organizations pursuing these types of community-based health promotions are also offered in the Appendix.

This section addresses lessons learned and effective practices utilized by programs that met or exceeded program goals from a collective group of over 50 **CCH**-funded programs. Common challenges faced by these organizations during the lifecycle of their programs, including implementation timetables, participant engagement and data collection and management, are also discussed. When several of these effective practices are applied and tailored to the needs of the community, they can be effectively used to develop and implement an impactful community health program.
Connections for Cardiovascular Health℠ Grant Program

Effective Practices Framework

Each year, the CCH program has held an application period to accept grant proposals from U.S.-based nonprofit organizations working to improve CV health at the community level. While applicants had extensive flexibility in developing their programs, the AZHCF was intentional in requiring applicants to:

- **Design and implement programs** that addressed well-defined, urgent, unmet needs in the community through innovative methods
- **Demonstrate organizational capacity** through community partnerships or through related experience implementing CV health programs
- **Evaluate measurable outcomes** that would benefit participants and demonstrate the program’s impact within the grant year, through potentially using an external program evaluator or experienced team member with related skills
- **Plan for program sustainability** from the start to ensure the continuation of the program after grant funding was expended, among other criteria developed by the AZHCF Board of Trustees

After receiving funding, Grant Awardees were required to submit progress reports at the three-month mark, mid-year point and by year-end. The AZHCF then utilized external evaluation partners to assess each awardee’s progress toward the goals each identified in its application and provided awardees with a written evaluation of progress to date, along with recommendations for improvement as needed. This process, along with ongoing support from the AZHCF, encouraged Grant Awardees to make mid-course corrections when challenges arose and to continue/strengthen program components that performed well in the period assessed. Additional support included offering resources and guidance on program evaluation and dissemination and facilitating learning opportunities for Grant Awardees to engage with one another and with experts to exchange lessons learned and build capacity for their programs.

Working within this framework and using this process, CCH Grant Awardees have collectively reached over 1.6 million lives through program activities, such as health fairs, screenings, brochures and workshops, and tracked over 59,000 participants toward improved CV health metrics. Participants have shown improvements in clinical and/or behavioral measures such as body mass index, blood pressure, knowledge of CVD and nutrition, physical activity level and/or dietary intake, among other measures. Important lessons learned and effective program practices have emerged that are shared in this Guide.
What follows are guidelines for planning a community-based health program and the top 10 effective program practices commonly used by Grant Awardees who met or exceeded expectations in their program goals and demonstrated program impact through improved CV health metrics. These effective practices can be applied when considering program design and implementation, organizational capacity, measurable outcomes and program sustainability for community-based CV or other health programs. Guidelines derived from the CCH Effective Practices Framework are intended to support ethically responsible, evidence-based, culturally appropriate and context-sensitive decision making in the planning, implementation and evaluation of CV health programs.

**Overall CCH Grant Awardee Achievements:**

- ✔ 1.6 million+ lives reached through program outreach and activities
- ✔ 59,000+ program participants tracked toward improved CV health metrics*

*Tracked participants include those who were tracked for progress during the grant years the program received CCH funding.

**PROGRAM DESIGN AND IMPLEMENTATION**

CCH-funded programs were implemented in a variety of locales across diverse geographic regions, racial and ethnic compositions and socioeconomic status. The keys to successful program design and implementation are having a thorough understanding of the community and target population and being prepared to effectively address the most important cultural factors and potential barriers to program participants. This is essential as there is no single approach to program design and implementation strategies for CV health promotion as each community has a unique character of its own.

**ORGANIZATIONAL CAPACITY**

Establishing organizational structure and operating mechanisms is a process of determining clear ways to work productively with different stakeholder groups. When groups engage in this process, they take steps to organize the effort (i.e., form a structure, determine clear roles and responsibilities, levels of authority) and support the members (i.e., establish protocols for decision-making and create a communication plan). This process helps create a collaborative team that is both cohesive and task focused. It establishes the logistical conditions and social relationships necessary to support collaborative action for change.

**MEASURABLE OUTCOMES**

Program administrators need to have goals that will lead to desired outcomes, which are necessary to determine long-term program or intervention impact. For example, if a program seeks to reduce community risk for CVD (i.e., a long-term impact), program participants will need to demonstrably improve individual measures such as cholesterol, blood pressure, hemoglobin A1C and body mass index. Outcomes are the specific measurable results of the program or intervention. A program’s outcomes are the result of interventions that are specified through measurable metrics that identify how much will be accomplished by whom and by when.
CCH awardees typically identified two different types of outcomes, including:

- **Clinical outcomes**: These outcomes are the results of any healthcare intervention, including those utilized by CCH awardees.\(^4\)

  *For example*, the clinical outcomes of a weekly exercise class may include measures such as weight, body mass index or blood pressure. Constant review of clinical outcomes establishes benchmarks against which to continuously improve all aspects of program design and implementation.

- **Behavioral outcomes**: These objectives look at changing the behaviors of people (what they are doing and understand) and the products (or results) of their behaviors.

  *For example*, a CVD prevention program might develop an outcome of weekly cooking classes (the behavior) for improved nutrition (the result).

### PROGRAM SUSTAINABILITY

Sustainability is the ability to maintain programming and its benefits over time.\(^5\) Programs typically need time to become fully operational before medium- to long-term health benefits can be demonstrated. Given this, early in a program’s lifecycle, organizations should focus on those factors that can promote long-term program sustainability so that specific communities and the broader public benefit fully from investments in public health research and subsequent program development.\(^6\)

*Sustainability, for the purpose of CCH-funded programs, consists of three important interrelated components:*

- Securing additional funds (e.g., through grants, fundraisers, reimbursable services, etc.) to financially continue the program
- Integrating the program into the organization’s existing operations
- Sharing the program model, key learnings and best practices with other departments, organizations or communities to expand the impact of the program

One of the hallmarks of the CCH program is the requirement that all CCH Grant Awardees plan for program sustainability from the start to ensure the continuation of their program after grant funding is expended.

During the grant application process and program evaluation cycles, CCH awardees were asked to identify strategies for sustaining program activities, community-level partnerships, organizational practices and benefits to their clients. Awardees were often at different points in their program’s lifecycle when they received CCH funding, and therefore each awardee was individually assessed on their progress toward program sustainability based on the goals they identified in their application that grant cycle, rather than on an established benchmark. As a result, there is wide variation among Grant Awardees in terms of where they are with sustainability.

The most successful programs were those that were able to develop and maintain structures and processes to effectively leverage the necessary resources to implement and maintain program activities. Some Grant Awardees were able to use the results their programs produced while funded by CCH to demonstrate program impact and organizational capacity and secure grants from other funders, such as national-level foundations. Other awardees leveraged partnerships to integrate program components into the community, such as sharing a program toolkit with faith-based partners to replicate the program in churches across the community. Sustainability remains an ongoing focus for all programs, while several CCH Grant Awardees have made remarkable progress.
Top 10 Effective Practices of Community Health Programs

Since 2010, the CCH program has funded over 50 unique public health programs, which represents nearly 120 completed grant award years.

Nearly 85% (101 out of 119) of these programs met or exceeded their objectives on their year-end evaluation.

In seeking to understand the factors contributing to this high level of success, it became clear that program success could be distilled down to a set of effective practices that were common across programs that met or exceeded program goals. The effective practices described in this document were developed based on CCH awardees’ experience working with program participants, community partners, healthcare providers, program evaluators and other relevant stakeholders. Effective practices of a community health program and strategies for adapting them to fit a particular context include:

1. Community Needs, Barriers and Assets
2. Program Design
3. Define and Measure Success
4. Comprehensive Care Through Partnerships
5. Bring Programs/Services to Participants
6. Provide Access
7. Culturally Sensitive Interventions
8. Health Coaches
9. Empower Participants
10. Program Sustainability
Community Needs, Barriers and Assets

- Identify the urgent/unmet need within the community to be addressed and what needs to be done
- Describe the prioritized groups to benefit and those implementing the intervention
- Identify any sociocultural barriers to care
- Identify the assets that the community possesses
- Engage and empower community stakeholders to take an active role in the design and ongoing implementation of the program

Program Design

- Design the program to address the urgent/unmet need within the community
- Assess “best practices” or “evidence-based interventions” that could help address the problem or goal
- Build on the existing assets in the community (e.g., hospitals/clinics for screenings; farmers’ markets for access to produce; corner stores, food banks, churches, schools, etc., to reach participants and/or serve as program sites)
- Include a recruiting plan that effectively reaches the target population
- Plan realistic, progressive steps and activities that adhere to a timeline for meeting the program’s goals and objectives
- Include opportunities for quality participant contact throughout the course of the program

Define and Measure Success

- Define realistic, measurable outcome goals at the start of the program with a clear definition of what success looks like
- Keep outcome goals “SMART”:
  - **Specific** – target a specific area for improvement
  - **Measurable** – quantify or at least suggest an indicator of progress
  - **Assignable** – specify who will do it
  - **Realistic** – state what results can realistically be achieved, given available resources
  - **Time-related** – specify when the result(s) can be achieved
- Collect baseline data to assess the program’s impact
- Incorporate multiple data collection points that allow for course corrections, as and when required
- Use an external evaluator or staff member with related knowledge to evaluate the program on an ongoing basis

Comprehensive Care Through Partnerships

- Assess organizational strengths, weaknesses, needs and resources (including diverse stakeholders and their roles and responsibilities within the group), and develop goals to enhance the functioning of the organization as it relates to the specific program or intervention
- Provide comprehensive services that address the multi-faceted needs of program participants through relying on your organization’s strengths and building partnerships in the community to address any gaps in service
- Determine how additional program-specific staff and/or volunteers will be recruited and used in the program
- Use a team-based approach to coordinate care for participants
- Build in a system for referrals
Bring Programs/Services to Participants
• Develop innovative methods for reaching potential participants “where they are” including literally taking programs/services on the road through mobile clinics or meeting community members where they live, work and frequent

Provide Access
• Provide access to medical care for uninsured participants by serving as a medical home or through developing partnerships with existing systems of donated care
• Provide access to affordable, healthy food such as through farmers’ markets or community gardens
• Incentivize participants through vouchers for healthy purchases that include fruits and vegetables

Culturally Sensitive Interventions
• Incorporate culturally sensitive education, training and activities into the program’s design

Health Coaches
• Deploy local promotores or health coaches who are community experts and peers from the target neighborhoods and share the same cultural values, experiences and traditions as the participants
• Empower youth and teens to take active roles in sharing health knowledge with their families and communities

Empower Participants
• Educate and train participants on self-management techniques that promote personal responsibility and empower and motivate participants to take charge of their own health and set their own behavior change and CV health improvement goals
• Provide incentives to recognize efforts and achievements of goals

Program Sustainability
• Plan for program sustainability from the start
• Define what success looks like and offer a vision for the program’s future
• Establish a plan for securing ongoing financial resources for program operations
• Consider how the program can be implemented into the organization’s existing operations in the long-term
• Collect program results, success stories and lessons learned throughout the program, and then determine a target audience and potential venues for sharing the program and its lessons learned once the program demonstrates positive impact
• Carry out sustainability activities on an ongoing basis, and routinely reassess for progress and make adjustments as needed
Six Innovative Approaches to Improve CV Health at the Community Level

In addition to the typical funding priorities of CV health grant programs, such as improving the CV health indicators of participants, the CCH program is characterized by a commitment to program innovation and sustainability. Awardees were required to identify urgent, unmet needs in their communities and design innovative programs to address the needs of specific target groups. Such health programs are based on the proposition that individuals cannot be treated independent of their social and cultural environments. In this way, community-based health promotion seeks to address prevention and treatment through a multilevel approach focusing on both the individual and the social context in which s/he exists. CCH grants were awarded to US-based nonprofit organizations that identified goals, outcomes and processes that were innovative relative to the intended target audience, CV health problem and/or geographic location, and that incorporated well-defined sustainability plans.

Innovation was defined not solely by what was new in the field of CV and public health, but also by what was pioneering for the targeted individuals and their community, such as using a mobile clinic to provide access to care in rural Appalachia.

Results achieved by CCH-funded programs over a nine-year period reveal six common types of successful community-specific innovations:

1. **Leveraging Access for Uninsured/Underserved Participants to Improve CV Knowledge and Health**
2. **Bringing Programs to Participants**
3. **Educating Children to Serve as Heart Health Ambassadors**
4. **Improving CV Health through Food-Based Programs**
5. **Using Health Coaches/Promotores to Improve CV Health**
6. **Providing Culturally Sensitive Program Interventions to Maximize Participant Outcomes** [Table 1]

While awardees often used more than one innovative approach to improve CV health, each program was categorized into the approach that it best fit. The lessons learned from these innovative approaches were derived from Grant Awardee program reports and analysis by the AZHCF’s external evaluation partners at the Center for Social and Economic Policy Research at West Chester University of Pennsylvania. Program results were independently evaluated and monitored through the tracking of clinical and behavioral outcomes, which assisted in determining which interventions and strategies were likely related to identified health improvements. A key component of the CCH program was its capacity enhancing approach of empowering awardees to both define and track their own measures of success. In this context, goals, metrics and benchmarks were established and tracked by awardees, which were then included in the evaluation and feedback process.

It is the intention of the AZHCF to share the lessons learned and impacts of these innovative practices with similar organizations that may be interested in adapting/replicating them in order to benefit their communities. It is the aim that this Guide will help to reduce the time it typically takes organizations to ramp up community health programs and support programs post-launch by addressing common challenges early on, with the goal of amplifying the impact for program participants to improve their health status.
**Table 1. Innovative Approaches Used by CCH Grant Awardees to Improve Cardiovascular Health at the Community Level**

<table>
<thead>
<tr>
<th>INNOVATIVE APPROACH</th>
<th>OVERVIEW OF INNOVATIVE APPROACH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leveraging Access for Uninsured/Underserved Participants to Improve CV Knowledge and Health</strong></td>
<td><em>CCH</em> awardees leveraged the goal of providing access to medical care for underinsured/underserved participants as a means of improving their CV knowledge and health. For these awardees, program goals were related not only to helping participants establish medical homes and access to care, but also to educating them about CV health in particular and helping them set and reach clinical CV health goals.</td>
</tr>
<tr>
<td><strong>Bringing Programs to Participants</strong></td>
<td>Rather than offering a fixed, stationary location where care was delivered, these innovative programs journeyed into the communities to meet participants where they live, work and gather, by holding programs at food banks, churches and other community sites or through using mobile clinics.</td>
</tr>
<tr>
<td><strong>Educating Children to Serve as Heart Health Ambassadors</strong></td>
<td><em>CCH</em> awardees effectively improved the CV health and knowledge of entire family units by focusing on improving children’s CV health and knowledge. As the primary program participants, children were empowered to serve as agents of health change primarily for their parents and siblings.</td>
</tr>
<tr>
<td><strong>Improving CV Health through Food-Based Programs</strong></td>
<td><em>CCH</em> awardees successfully used food-related initiatives as a means of improving the CV health of program participants and the wider community. Specific program activities included general nutrition and CVD education classes, growing fruits and vegetables, promoting a plant-based diet, doubling the value of government assistance nutrition benefits at farmers’ markets and facilitating partnerships with community food distribution networks.</td>
</tr>
<tr>
<td><strong>Using Health Coaches/Promoters to Improve CV Health</strong></td>
<td><em>CCH</em> awardees employed health coaches to enhance the reach and impact of their programs. <em>CCH</em>-funded programs using this approach included efforts to help participants gain the knowledge, skills, tools and confidence to become active participants in their health management and reach their self-identified health goals.</td>
</tr>
<tr>
<td><strong>Providing Culturally Sensitive Program Interventions to Maximize Participant Outcomes</strong></td>
<td><em>CCH</em> awardees who were able to successfully implement this innovation were able to effectively identify and integrate the unique cultural needs of target populations into program design and delivery.</td>
</tr>
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</table>
Common Challenges

Program design, implementation and evaluation challenges specific to each innovative approach are discussed in the individual innovative approach sections referenced in Table 1 above. From a broader perspective, however, there are several areas in which CCH awardees encountered similar difficulties.

• Gaining support from key stakeholders and addressing participants’ barriers to health were persistent issues for many CCH awardees in the first year of their program that negatively affected participant enrollment and retention. Through mid-course corrections, many organizations were able to make adjustments to their programs in order to demonstrate positive impacts by the end of the grant year.

• Identifying effective strategies for engaging high-risk, difficult to reach populations and, subsequently, refining data systems to accommodate the cyclical collection of a broad spectrum of inputs and outputs (an iterative process) was challenging for many programs. Organizations found it necessary to prioritize relationship building and the provision of consistent follow-up care and data collection.

The AZHCF was able to support awardees in making course corrections by providing ongoing support throughout the grant year, including recommendations from external evaluators on program evaluations, and through focused efforts of the AZHCF, including the facilitation of panel session discussions and learning laboratories with CCH Grant Awardees. Panel sessions brought together various awardees and offered face-to-face interaction and the opportunity to share lessons learned and exchange ideas that could then be applied to their programs. Similarly, learning laboratories offered by the AZHCF were led by experts on subjects such as communications/storytelling, social media, program evaluation and program dissemination and presented an opportunity for Grant Awardees to expand their skills and build upon their knowledge in those areas. The AZHCF is further supporting its awardees by identifying longstanding Grant Awardees to serve as mentors to newly funded organizations to help ensure their programs get off to an impactful start.
Program Sustainability

Sustainability is an intentional and active process of identifying new resources, enhancing capacity of CCH Grant Awardee organizations, developing or strengthening collaborations with related organizations, and delivering services that become a lasting part of the communities whose needs the programs serve.

Sustainability of a CCH-funded CV program requires the development of a sustainability plan that needs constant monitoring and assessment. Executing the sustainability efforts requires an intentional multi-stakeholder approach, and the steps are outlined here:

1. Develop a shared understanding of sustainability for the program from the beginning
2. Conduct a situation analysis with program stakeholders
3. Connect with possible collaborators
4. Build a sustainability action plan

**Sustainability Planning Tips**

- **Step 1:** Make a strong case for support
- **Step 2:** Identify collaborating organizations or a coalition that you would like to partner with
- **Step 3:** Assemble a program sustainability committee
- **Step 4:** Develop a draft sustainability plan
- **Step 5:** Share the sustainability action plan and make revisions as necessary
- **Step 6:** Publicize the sustainability action plan

5. Implement the sustainability action plan, making changes as you proceed
6. Meet with the program sustainability committee regularly and discuss the success of the sustainability action plan
7. Evaluate the outcomes of your sustainability action plan

Implementation of sustainability efforts could result in several favorable outcomes and include:

- Improved service delivery practices
- Enhanced organizational capacity of collaborators to provide services
- Sustained and/or additional favorable changes in knowledge, attitudes and behaviors of program participants
- Increased outreach to community members, including those not previously served
- Improved financing models for delivering CV health care
- Empowerment of the community for the health of its members
- Institution of policy changes that are favorable to meeting community needs

Examples of methods used by CCH Grant Awardees are provided in the tables for each of the six innovative approach sections. Each innovative approach section can be referenced by clicking its respective link in the Table of Contents, and the tables can be viewed immediately following the Conclusion of each innovative approach.
Conclusion

Grant Awardees who achieved high impact in their target communities were successful in understanding that program design, program evaluation and social innovation are interrelated and impact one another. Program design and program evaluation are part of the same collaborative process where stakeholders, both internal and external (i.e., program administrators, program evaluators, funders, community partners and/or program participants), work together to review and refine program components in an effort to enhance its impact. Program planning is a multi-step process that generally begins with the definition of the problem (through a carefully conducted needs and assets assessment) and development of an evaluation plan. Although specific steps may vary, they usually include a feedback loop, with findings from program evaluation being used for program improvement.

CCH-funded programs that achieved program goals and demonstrated progress toward improved clinical and/or behavioral CV measures exemplify this framework for building innovative, community CV health promotions. To maximize effectiveness, nonprofit organizations working to improve CV health in their community need to consider the following:

- Identify an urgent, unmet need related to CV health in their community and address various barriers to care for their target populations
- Engage community stakeholders and develop relationships based on understanding and trust
- Empower participants to take charge of their own health and influence the program’s implementation and impact
- Involve community partners to ensure program sustainability

Moreover, by participating in this iterative and collaborative process, staff from CCH-funded programs are able to expand their program management skills and enhance overall organizational capacity.

While Designing and Implementing Innovative, Community-Based Cardiovascular Health Interventions provides an overview of effective practices for any community health program, organizations looking to refine their CV health program would benefit from consulting the six innovative approach sections. Selection of one or more of these approaches that best align with their program framework might prove beneficial to bring about the desired outcomes. Each section provides effective practices specific to the program approach that may be implemented to enhance the program’s capacity to improve CV health at the community level while considering the unique needs of the community.
Leveraging Access for Uninsured/Underserved Participants to Improve Cardiovascular (CV) Knowledge and Health
Introduction

Leveraging Access for Uninsured/Underserved Participants to Improve CV Knowledge and Health, describes the innovation relative to CV health in particular communities, identifies how program design can reflect the social context of participants and suggests specific implementation strategies that are proven to enhance the CV health and knowledge of program participants while expanding healthcare access to vulnerable populations. It also provides an overview of how awardees using this approach furthered their sustainability efforts and describes common challenges faced by the CCH-funded organizations. Additional resources for organizations pursuing this type of community-based health promotion are offered in the Appendix.

Connecting uninsured and underserved participants to healthcare for health promotion and disease prevention is a proven and effective practice utilized by community-based health initiatives. Several CCH awardees leveraged the goal of providing access to medical care for underinsured/underserved participants as a means of improving their CV knowledge and health.

- For these awardees, program goals were related not only to helping participants establish medical homes and access to care, but also to educating them about CV health in particular and helping them set and reach clinical CV health goals.
- Implementation strategies that fostered partnerships with local and regional systems of donated care and those that helped find permanent medical homes for program participants lacking primary care were especially successful.
- By connecting participants and healthcare providers, CCH program participants were able to identify and meet CV health improvement goals.

This type of patient empowerment has been established as a best practice for community-based health initiatives and was instrumental in helping participants define and achieve positive program impacts.12

Table 2. Overview of CCH-Funded Programs that Successfully Leveraged Access for Uninsured/Underinsured Participants provides an overview of three CCH-funded programs whose participants demonstrated improvement in their CV knowledge and health as a result of their increased access to healthcare. Strategies for implementing this innovative approach are detailed on the following pages.
**Strategies**

The various organizations and CCH-funded programs highlighted under this approach have all engaged in an effort to improve the CV health of their communities. Some have focused on increasing access to healthcare for vulnerable populations, while others have achieved this as a by-product of their work to address chronic disease. Representatives from these programs agree that they have had a positive impact on the well-being of uninsured and underserved individuals and, as a result, have contributed to the overall vitality and resiliency of their communities. These innovations are noted occurring simultaneously at four levels:

1. **organizational level** (e.g., structures, processes, leadership, funding, information technology)
2. **participant level** (e.g., navigation, translation, convenient access, education)
3. **provider level** (e.g., training, interdisciplinary teams, diversity, cultural competence)
4. **community level** (e.g., outreach, recruitment, partnerships)

### Effective Program Practices

*CCH*-funded programs were successfully implemented by nonprofit organizations of varying size, scope and mission-orientation. While each program was designed to reach a particular population within a specific context, several common methods of improving CV knowledge and health through increased access to healthcare were noted. *CCH* Grant Awardees who demonstrated the most impact with this innovative approach had several effective program practices incorporated into their program design and thus enhanced their organizational capacity and ability to demonstrate improved outcomes.

What follows is a description of the effective practices of *CCH*-funded programs that increased access to healthcare based on these categories. Organizations that are interested in using a similar approach to improve CV health in their communities may benefit from adopting or modifying these program practices. Examples of actual strategies used by Grant Awardees can be found in **Table 2**.
WELCOMING ENVIRONMENT
- Provide a physical space and an initial personal interaction that is “welcoming,” familiar and not intimidating

COMFORT AND SUPPORT
- Emphasize comfort, privacy, emotional support and involvement of family and friends
- Provide opportunities for peer-to-peer support
- Provide individual and/or group coaching to identify and implement necessary behavior and lifestyle modifications

SOCIO-CULTURAL COMPETENCE
- Understand and consider culture, socioeconomic and educational status, health literacy level, family patterns/situation and traditions
- Communicate in a language and at a level that the participant understands
- Address participants’ socioeconomic barriers to care (e.g., provide transportation assistance, flexible scheduling, etc., as needed)

RESPECT FOR PARTICIPANTS’ VALUES AND EXPRESSED NEEDS
- Obtain information about the participant’s care preferences and priorities
- Inform and involve the participant and his/her family/caregivers in decision-making
- Tailor care to the individual
- Promote a mutually-respectful, consistent participant-provider relationship

PARTICIPANTS AS AGENTS OF CHANGE
- Educate and encourage the participant to expand his/her role in decision-making, health-related behaviors and self-management

PARTICIPANT/FAMILY INVOLVEMENT
- Include participants and their family members in the planning, design and ongoing functioning of the program
- Consider the participant a valuable member of his/her care team

FEEDBACK
- Seek and respond to suggestions and complaints from participants and families

MOTIVATION
- Offer incentives to keep participants motivated and engaged in the program

ACCESS AND NAVIGATION SKILLS
- Provide what the participant can consider a “medical home” and provide convenient service hours
- Promote access to comprehensive, quality healthcare services
- Help participant attain skills to better navigate the healthcare system
- Utilize community health workers, as needed
ORGANIZATIONAL CAPACITY
The support and resources that affect an organization’s ability to effectively operate a program

1 COMMUNITY OUTREACH
- Make demonstrable, proactive efforts to understand and reach out to the local community

2 LEADERSHIP
- Board of directors and executive management teams should make a clear, explicit commitment to participant empowerment and act as role models

3 TECHNOLOGY AND STRUCTURAL SUPPORT
- Use electronic systems and user-friendly software programs that promote privacy, participant/family education and compliance and that minimize medical errors

4 INTEGRATION INTO INSTITUTION
- Link efforts to increase access to other priorities such as participant safety, quality improvement, etc., and incorporate practices into daily operations and culture

5 COORDINATION AND INTEGRATION OF CARE
- Assess the need for formal and informal services that will have an impact on health or treatment
- Provide team-based care and care management, make appropriate referrals and ensure smooth transitions between different providers and phases of care

6 INVOLVEMENT IN COLLABORATIVE EFFORTS, STRATEGIC ALLIANCES AND PILOTS
- Seek out and develop collaborative relationships with other organizations in the community healthcare network for referrals and conducting community outreach
- Pilot new ideas on a small-scale basis

MEASURABLE OUTCOMES
The metrics used to verify the value and efficacy of programs

1 COLLECTION OF MEASURES AND IMPROVEMENT OUTCOMES
- Develop, collect and evaluate data on measures of care, and utilize the results in further improvements
- Incorporate accountability for addressing deficiencies and continually improving outcomes
Common Challenges

Common challenges reported by organizations leveraging access for uninsured/underserved participants included identifying effective strategies for engaging high-risk, difficult to reach populations and, subsequently, designing and maintaining data systems to accommodate the cyclical collection of a broad spectrum of inputs and outputs.

Engaging High-Risk, Difficult to Reach Populations

Organizations that were successful in engaging high-risk populations focused on developing long-term community care management models that utilized both health coaching and lay health worker navigation. In their efforts to reach medically underserved, high-risk individuals with limited access to medical care, these organizations utilized a comprehensive, multi-faceted approach that included multiple points of contact with increasing levels of participant involvement. Additionally, changes in state and federal aid related to healthcare coverage for at-risk populations compelled program staff and volunteers to consider novel and persistent approaches relative to participant identification, recruitment and continued engagement in order to fill gaps in access to care for underserved populations. Long-term, community-wide CV health impacts require direct participant contact and sustained program exposure. This type of relationship building should be culturally appropriate and respectful of competing individual and community priorities.

Designing and Maintaining Data Systems for Effective Program Management

Organizations should carefully consider their data needs when planning a similar program, such as what data will be collected; what methods and systems will be used to collect, store and analyze the data; how often it will be collected; and how often the data will be assessed. It is critically important that data be collected at intervals that allow for meaningful programmatic change when outcomes are not meeting expectations. An external evaluator can help organizations to determine how best to approach data collection and analysis based on the organization’s needs and resources and work to ensure data integrity.

Review of collected data can help the organization identify areas where challenges may lie to achieving their objectives and can support making mid-course changes as well as developing reports required by the funding agency. Evaluators (internal or external or both) also rely on the data for measuring program outcomes. Therefore, a well-thought out evaluation framework in the beginning of the program is of immense value to multiple stakeholders. Accuracy, currency and relevance of data need to be ensured to maximize their utility for purposes outlined.
Program Sustainability

With regard to programs that leveraged access for uninsured/underserved participants to improve CV knowledge and health, three effective practices are noted here to help enhance program sustainability efforts. First, several organizations have fostered collaborations and partnerships with healthcare organizations for referrals, community outreach and access to donated care. These collaborations and partnerships have enabled the CCH Grant Awardees to build trust and long-term working relationships with other organizations. Second, by empowering program participants as agents of change, they were encouraged to expand their role in the community as peer educators and catalysts for change with respect to CV health related behaviors. Third, integrating key program priorities, such as participant safety and quality improvement, into daily operations and culture helps to strengthen organizational capacity in effectively addressing these issues in future. These three practices may be considered as components of a more comprehensive sustainability plan for programs providing similar access to care.

Conclusion

Collective learning from these programs shows that demonstrable improvements in CV health and knowledge can be achieved when uninsured and underserved individuals are provided with enhanced access to integrated healthcare. While the recruitment, retention and participant monitoring for such versatile and inclusive programs are complex, commitment to such an approach can lead to program impacts. By engaging the participants and their families, empowering them to take control of their health management and establishing medical homes and networks of care through culturally sensitive community outreach, CCH program partners helped participants achieve substantial and potentially sustainable clinical and behavioral outcomes.
Table 2. **OVERVIEW OF CCH-FUNDED PROGRAMS THAT SUCCESSFULLY LEVERAGED ACCESS FOR UNINSURED/UNDERINSURED PARTICIPANTS**

<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Disease Focus</th>
<th>Target Audience</th>
<th>Program Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comprehensive Health Center</strong>&lt;br&gt;Nashville, TN&lt;br&gt;Dial Down Diabetes</td>
<td>Diabetes</td>
<td>Low-income African American and Hispanic/Latino female adults with or at risk of diabetes around Nashville, Tennessee</td>
<td>To provide a comprehensive, culturally relevant community-based program for low-income adults with diagnosed diabetes, undiagnosed diabetes or prediabetes – enabling patients to continue dialing down the impact diabetes has in their lives</td>
</tr>
<tr>
<td><strong>Manna Ministries Inc.</strong>&lt;br&gt;Picayune, MS&lt;br&gt;Heart 2 Heart Initiative</td>
<td>General Cardiovascular Disease</td>
<td>Rural, uninsured/underinsured adult and youth populations in southern Mississippi and Louisiana</td>
<td>To engage the community and collaborate in improving CVD awareness, while improving the quality of care and patient education through community outreach in delivery of screening, patient education, treatment and heart-healthy lifestyle support and education to reduce CVD in uninsured and underinsured populations in southern Mississippi and Louisiana</td>
</tr>
<tr>
<td><strong>West Virginia Health Right, Inc.</strong>&lt;br&gt;Charleston, WV&lt;br&gt;SCALE (Sustainable Change and Lifestyle Enhancement)</td>
<td>General Cardiovascular Disease/Obesity</td>
<td>Adults and families at risk for CVD in south central West Virginia</td>
<td>To achieve, through personal coaching, group support, nutritional education, improved diet and regular exercise, sustained weight loss in 100 obese patients to improve their health status and reduce CV risk factors.</td>
</tr>
</tbody>
</table>

**Program Design & Implementation**

- Provides educational workshops about healthy living to participants, their families and the community at-large
- Uses a case manager, medical assistants and health coaches to provide participants with case-management services
- Participants have access to fitness classes
- Serves as a medical home for uninsured participants

- Offers evidence-based, CV education modules, self-management education and tools
- Participant involvement is a core value that is encouraged throughout each module
- Participants meet one-on-one after each class with clinical staff, a nutritionist and the activities director for information and instruction on their progress
- Trained lifestyle coaches help participants to identify their barriers to lifestyle changes
- Incorporates exercise and nutrition into an existing after-school mentoring program
- Serves as a medical home for uninsured participants

- Provides healthy cooking classes and access to an individualized exercise program
- Uses motivational interviewing, coupled with personal coaching, to empower participants
- Each participant is assigned to a personal coach and a peer-to-peer support team to assist in the achievement of goals
- Involves participants’ families to address psychosocial/environmental barriers
- Improves access to fresh produce through partnerships with farmers’ markets
- Serves as a medical home for uninsured participants
### Table 2. (Cont’d)

<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Organizational Capacity</th>
<th>Measurable Outcomes</th>
<th>Sustainability Efforts</th>
</tr>
</thead>
</table>
| **Dial Down Diabetes** | • Uses a team-based approach  
• Provides case management services  
• Works with universities, a sorority and a local parks & recreation department for community outreach/education and fitness classes | • 92% of participants reported an increase in nutrition education/knowledge  
• 64% of individuals with a blood pressure > 140/90 had a reduction in their blood pressure  
• 52% of individuals with a body mass index > 25 had a reduction in average body mass index | Throughout three years of CCH funding for the program:  
**INTEGRATING THE PROGRAM:**  
• Partnered with universities, a parks & recreation department and a sorority  
**SECURING FINANCIAL SUPPORT:**  
• Received a grant  
• Acquired donations during community-based “fun walks”  
**DISSEMINATING THE PROGRAM:**  
• Presented program to a local stakeholder group |  
**INTEGRATING THE PROGRAM:**  
• Partnered with hospitals, universities/colleges, a health clinic and other community stakeholders  
• Integrated the program into the organization’s existing clinic program and its after-school children’s program  
**SECURING FINANCIAL SUPPORT:**  
• Received in-kind donations  
• Secured additional grants and funds  
• Conducted fundraisers to raise money through raffle ticket sales  
**DISSEMINATING THE PROGRAM:**  
• Developed a program toolkit  
• Presented program to a nursing association and to other stakeholders |  
**INTEGRATING THE PROGRAM:**  
• Partnered with universities, a medical center, a YWCA, a parks & recreation department and local growers  
• Integrated the program into the clinic’s existing operations  
**SECURING FINANCIAL SUPPORT:**  
• Secured additional funds from donors/foundation  
• Conducted fundraisers  
**DISSEMINATING THE PROGRAM:**  
• Presented program at conferences, on a webinar and to local organizations and state legislators  
• Developed a program toolkit and distributed it at conferences/presentations and on its website |  
**Heart 2 Heart Initiative** | • Uses a team-based approach  
• Data is collected through an electronic medical record system as well as a backup data analysis system  
• Works with the Mississippi Free Clinic Alliance to promote the program to other areas in the state | • 88% of participants with triglycerides > 149 lowered levels by an average of 99 points  
• 84% of participants with blood pressure > 140/90 lowered it by an average of 17 points  
• 82% of participants with glucose > 110 lowered levels by an average of 56 points |  
**SCALE (Sustainable Change and Lifestyle Enhancement)** | • Data is collected through an electronic medical record system  
• Data is reviewed monthly by clinical coordinator to determine health status changes and advise clinicians, coaches and instructors of areas that need improvement | • 100% of participants lost weight, with a combined weight loss of 1,888 pounds  
• 100% of participants scored 75% or higher on a CVD knowledge test  
• 83% of participants decreased A1C |  
**West Virginia Health Right, Inc. Charleston, WV** | **Manna Ministries Inc. Picayune, MS** | **Matthew Walker Comprehensive Health Center Nashville, TN** |
INNOVATIVE APPROACH

Bringing Programs to Participants
Introduction

*Bringing Programs to Participants* describes the innovation relative to CV health in particular communities, identifies specific strategies to enhance program reach by delivering activities in the participants’ home environments, provides an overview of how awardees using this approach furthered their sustainability efforts and describes common challenges faced by the CCH-funded organizations. This section further demonstrates how CCH partner organizations tackled the common challenges of participant recruitment and retention. Rather than the traditional approach of requiring participants to come to a specific site for program delivery, these programs met participants “where they live,” either by taking their program literally on the road (through mobile clinic vans) or delivering the program in places already frequented by participants, such as barbershops or food banks. Additional resources for organizations pursuing this type of community-based health promotion are offered in the Appendix.

Participant enrollment and retention are common barriers encountered by community health interventions designed to target specific health issues.\(^{13, 14, 15}\) Target populations for these community-based health initiatives often include those of racial and ethnic minority backgrounds, the homeless, displaced populations, recent immigrants, migrant workers, people lacking insurance and children. Such vulnerable populations face significant barriers to health, including but not limited to, language, awareness of risk factors, transportation, health insurance status, weak systems of benefits enrollment assistance and healthcare specialist referrals and access to primary care and medical homes.\(^{16, 17}\)

Several CCH awardees worked around these barriers by using innovative methods to reach their participants. Traditional models require that participants come to a specific location for program services. Rather than offering a fixed, stationary location where care was offered, these innovative programs journeyed into the communities to meet participants where they live.\(^{18}\)

- By delivering services through mobile clinic vans or in accessible and convenient places regularly visited by the target population, such as churches or food banks, these programs were able to reach more individuals through their activities and track more participants toward improved CV health metrics than those awardees using traditional, fixed locations.

- As others have noted, there are significant time savings in terms of recruitment and initial enrollment when programming is implemented on-site as opposed to expecting participants to come to a central program delivery site.\(^{19, 20}\)

Strategies for enhancing program reach through this innovative approach are detailed on the following pages.
Strategies

Research shows that bringing programs to participants improves health outcomes for hard to reach populations in cost-effective and culturally competent ways.\textsuperscript{21, 22, 23, 24}

- \textit{CCH} awardees found that the on-site screening component of this approach helped to publicize the program’s activities and availability and also served as an efficient means of gathering baseline data for program participants.

- This approach was also found to be compatible with program goals related to CV clinical measures, such as blood pressure and weight (or body mass index). Such measures can be recorded and tracked easily in mobile and non-traditional healthcare settings. Behavioral measures, such as knowledge of CVD and disease prevention, are also appropriate for this program approach.

- Several \textit{CCH} awardees effectively used this strategy to achieve substantial impact with regard to program reach, recruitment and retention.

- Most notably, this strategic approach to engage participants was found to be successful in a wide variety of populations. Target audiences included rural farmers and other agricultural workers, urban residents of large metropolitan areas, Hispanic and Latino immigrants and naturalized citizens, African American women church attendees, barbershop patrons and food pantry clients, as well as uninsured and underinsured residents of the Appalachian Mountains of southwest Virginia.

Table 3. \textit{Overview of CCH-Funded Programs that Brought Programs to Participants} provides an overview of three \textit{CCH}-funded programs that successfully enhanced their reach and impact through the use of mobile interventions delivered directly to participants.
Effective Program Practices

Bringing programs to where participants live and feel comfortable serves a unique role for meeting the needs of the underserved populations in our society. This method of healthcare delivery serves the full spectrum of at-risk populations, from medically complex patients who may not be able to effectively navigate the healthcare system and may rely on emergency departments for care, to the homeless, uninsured and those living in rural environments with limited access to care. Programs like those delivered by CCH awardees are often the last resort in places where the mainstream healthcare system has not provided a point of access. In addition to the underserved, this approach can be applied to a wide variety of populations, given the convenience it provides by offering services in places community members already frequent.

While it is true that the CCH-funded programs identified as using this innovative approach operated in varying contexts and served diverse populations, several effective practices emerged as essential to the success of this innovation. Nonprofit organizations interested in adapting a similar approach to improve CV health at the community level may benefit from adopting or modifying the following effective program practices. Examples of actual strategies used by Grant Awardees are presented in Table 3.

1. **KNOWING THE TARGET POPULATION**
   - Understand the barriers faced by the target population and tailor the program approach to meet the needs of the community
   - Provide services in locations the target population frequents and at times convenient for them
   - Foster opportunities for building relationships and trust between program staff and participants (e.g., offering group sessions that allow for open dialogue)

2. **AGGRESSIVE PROGRAM PROMOTION**
   - Promote program services aggressively through available information outlets, e.g., regional television and radio, local print publications and community forums

3. **IDENTIFICATION OF AT-RISK INDIVIDUALS AND PROVISION OF FOLLOW-UP**
   - Leverage screenings to identify at-risk individuals and provide on-site education to inform participants of their test results and on disease prevention/management
   - Refer at-risk individuals to appropriate case-management
   - Keep participants engaged through personal touchpoints including follow-up phone calls and mailings

4. **ALTERNATIVE MEDICAL HOMES**
   - Serve as an alternative medical home to individuals who otherwise do not have access to healthcare
ORGANIZATIONAL CAPACITY
The support and resources that affect an organization’s ability to effectively operate a mobile intervention

1. MULTIPLE PROGRAM DELIVERY SITES
   • Provide multiple on-site opportunities for program delivery to achieve a broader geographic reach

2. DIVERSE STAFFING QUALIFICATIONS
   • Use a diverse workforce of volunteer, administrative and non-physician personnel, along with traditional medical/healthcare personnel, to enhance cultural competence and program impact

3. COMMUNITY PARTNERSHIPS
   • Build relationships with community partners and gain their support to facilitate locations for program delivery, engage program participants and/or coordinate a referral system to provide comprehensive care
   • Bring together social workers, physician assistants and/or other health “navigators” from across multiple agencies to share information, build relationships and identify assets and gaps in the referral system

MEASURABLE OUTCOMES
The metrics used to verify the value and efficacy of mobile interventions

1. PROCESS AND OUTCOME INDICATORS
   • Measure and assess both process and outcome indicators such as: participant-reported improvement in access to care; participants enrolled in public insurance programs and linked to appropriate care; participants diagnosed and started on treatment for CVD and other chronic conditions; participants referred to and participating in educational programs; and changes in participant behavior and improved clinical outcomes specific to CVD and other chronic conditions
   • Measure and assess metrics related to the economic value and cost savings relative to fixed-location healthcare providers
Common Challenges

Mobile programs aiming to meet the CV healthcare needs of participants where more traditional healthcare models have been unsuccessful faced two primary challenges: relationship building and the provision of consistent follow-up care and data collection.

Relationship Building
Program staff found it difficult to cultivate meaningful relationships with community members in the relatively short amount of time in which they were present in any one place. Establishing the trust and rapport necessary to inform deeply ingrained belief systems and bring about behavioral change can be a significant barrier for traveling healthcare providers. Organizations that were successful with this innovative approach found engaging stakeholders in the initial program implementation to be a critical step in successful relationship building. Enlisting community leaders as program ambassadors and ensuring culturally appropriate outreach methods enhanced the reception of program staff and their services by potential participants.

Provision of Consistent Follow-up Care and Data Collection
Positive first encounters and regular opportunities for follow-up care were related to improved clinical outcomes and medication compliance. Organizations reported that successful participant recruitment and retention required multiple points of contact. In addition to broad-reaching communication efforts such as print and radio advertising, these organizations found that while more resource-intensive, individualized outreach strategies such as in-person communication and follow-up phone calls were highly effective relative to participant retention and improved outcomes.
Program Sustainability

Implementation strategies exercised by CCH Grant Awardees who delivered programs directly to participants, focused specifically on building relationships with community partners and gaining their support to facilitate locations for program delivery, engage program participants and/or coordinate a referral system for additional services to provide comprehensive care. Such strategies also facilitate the continuation of long-term relationships for offering effective services to community members. In addition, bringing together healthcare providers across multiple agencies to share information, build relationships and identify assets and gaps in the referral system allows for continual strengthening of the collaborative relationship among these professionals. Both of these practices help to contribute to program sustainability and should be considered by organizations using this program approach.

Conclusion

CCH Grant Awardees who used this innovative approach identified an urgent, unmet need in their communities and the barriers their community members faced in accessing and receiving care from traditional healthcare models. They recognized that a new model of care was needed to overcome these barriers. The most impactful characteristic of CCH programs that brought services directly to participants was their adaptability, which allowed them to reach populations in areas where other healthcare options were not available. These programs had the flexibility to respond to changing community needs and resources. Traditionally, this has made bringing programs to participants a good option for delivering urgent care and/or preventive care to the underserved. Additionally, in a healthcare environment where appointments with other providers are difficult to get or expensive, this approach is becoming a practical and desirable option. While organizations often faced challenges with relationship-building in the community and ensuring accurate, consistent data collection, those that were particularly successful provided persistent and personal outreach efforts that facilitated program exposure and continuity of care for the population served. Because serving participants where they live offers accessibility, convenience and free or low-cost services for participants, community health initiatives that use this approach are likely to experience an increase in public support, buy-in and ultimately, an enhanced ability to keep participants connected to the program and realize intended health outcomes.
<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Elkhorn Logan Valley Public Health Department Wisner, NE</th>
<th>St. Mary’s Health Wagon Wise, VA</th>
<th>Saint Agnes Foundation (Also known as Saint Agnes Hospital Foundation, Inc.) Baltimore, MD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization &amp; Program</strong></td>
<td></td>
<td>Heart Health 1, 2, 3, Comprehensive Cardiovascular Disease Initiative for Diabetes Mellitus, Metabolic Syndrome, and Obesity</td>
<td>Heart-to-Heart</td>
</tr>
<tr>
<td><strong>Disease Focus</strong></td>
<td>Obesity</td>
<td>Diabetes, Metabolic Disorder, General Cardiovascular Disease</td>
<td>General Cardiovascular Disease</td>
</tr>
<tr>
<td><strong>Target Audience</strong></td>
<td>Rural youth and adults in the Elkhorn Logan Valley of Nebraska</td>
<td>Underserved, youth and adults in the Coalfields of Virginia</td>
<td>Underserved, urban, African-American women in Baltimore</td>
</tr>
<tr>
<td><strong>Program Goal</strong></td>
<td>To reduce the incidence of CVD through education and health screening opportunities for agricultural laborers and rural citizens by increasing knowledge of CV health, reducing blood pressure and weight and improving CV biometric measures.</td>
<td>To identify individuals with metabolic syndrome, diagnosed as dysmetabolic syndrome x, diabetes mellitus and Nonalcoholic Fatty Liver Disease (NAFLD), and correlate the risk for CVD related to these afflictions, ultimately minimizing and preventing the risk of a cardiac event through the use of health education, screening and medication management, and evidence-based practices (Diabetes Prevention Program).</td>
<td>To establish support networks, peer community health workers, assessment tools and resource development through an evidence- and church-based CVD intervention program that will empower faith-based partners to effectively reduce CVD risk factors in communities with severe healthcare disparities.</td>
</tr>
<tr>
<td><strong>Program Design &amp; Implementation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Barriers of unpredictable incomes, high deductibles or no health insurance and inconvenience of medical clinic locations/hours of service for target population.</td>
<td>• Barriers of limited access to healthcare facilities and transportation, and low incomes.</td>
<td>• Aims to address the disparities in the delivery of and access to cardiac care for women, particularly women of color in disadvantaged neighborhoods.</td>
</tr>
<tr>
<td></td>
<td>• Comprehensive CVD screening that identifies high-risk individuals delivered in places where farmers visit such as grain elevators and livestock sales.</td>
<td>• CV case management team screens participants for dysmetabolic syndrome, NAFLD, diabetes mellitus and CVD and places at-risk individuals into the patient database.</td>
<td>• Church-based program intervention.</td>
</tr>
<tr>
<td></td>
<td>• High-risk individuals are recruited into intensive case management that uses educational modules on health choices and allows participants to set individual goals pertaining to their CV health.</td>
<td>• Uses mobile and stationary clinics.</td>
<td>• Comprehensive CVD risk assessment and EKG followed by a tailored consultation regarding diet, exercise and CVD risk factors.</td>
</tr>
<tr>
<td></td>
<td>• Youth and adult community-based CV education delivered by a health educator.</td>
<td>• Participants are provided education, lifestyle management, chronic disease management and medication management therapy.</td>
<td>• Women at high-risk for CVD are eligible to participate in well4life, a weight loss and healthy lifestyle intervention, and have access to a lifestyle coach, support groups, exercise and education classes and a web component, in addition to oversight by a nurse practitioner.</td>
</tr>
<tr>
<td></td>
<td>• Blood pressure screening, reduction and education for the community at large, delivered primarily in workplaces or other public settings.</td>
<td>• Participants work with lifestyle coaches to help decrease the risk of developing diabetes through evidence-based practices laid out by the Centers for Disease Control and Prevention’s Diabetes Prevention Program.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3. (Cont’d)

<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Elkhorn Logan Valley Public Health Department</th>
<th>St. Mary’s Health Wagon Wise, VA</th>
<th>Saint Agnes Foundation (Also known as Saint Agnes Hospital Foundation, Inc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization &amp; Program</strong></td>
<td>Operation Heart to Heart</td>
<td>Heart Health 1, 2, 3. Comprehensive Cardiovascular Disease Initiative for Diabetes Mellitus, Metabolic Syndrome, and Obesity</td>
<td>Heart-to-Heart</td>
</tr>
<tr>
<td><strong>Organizational Capacity</strong></td>
<td>• Offers screenings at multiple sites: farm and tractor supply stores, hatcheries, animal auctions, mandatory pesticide certification courses, feed stores, crop seed dealers, etc.</td>
<td>• Offers screenings and education at multiple sites through mobile and stationary clinics</td>
<td>• Partners with area churches to implement and sustain the program</td>
</tr>
<tr>
<td></td>
<td>• Partners with area hospitals for assistance with publicity and community events</td>
<td>• Works with a college to provide weekly classes on chronic disease management, therapeutic lifestyle changes and medication therapy counseling</td>
<td>• Leverages other partnerships to provide training to churches in grant seeking, and resource and partnership development for program sustainability</td>
</tr>
<tr>
<td></td>
<td>• Works with a college to provide weekly classes on chronic disease management, therapeutic lifestyle changes and medication therapy counseling</td>
<td>• Works with a college to provide weekly classes on chronic disease management, therapeutic lifestyle changes and medication therapy counseling</td>
<td>• Works with partners to provide training for peer Heart Health Champions (community health workers) and for the creation and distribution of a program toolkit for churches</td>
</tr>
<tr>
<td><strong>Measurable Outcomes</strong></td>
<td>• 70% of participants who were overweight/obese at enrollment lost weight, with an average weight loss of 6.62 pounds</td>
<td>• 88% of participants surveyed demonstrated increased knowledge in the disease process, risk factors and healthy habits</td>
<td>• Three women moved from diabetic range (6.5+) to pre-diabetic range (5.7–6.4) and seven women moved from pre-diabetic range to normal at 10 months</td>
</tr>
<tr>
<td><strong>(Selected year-end outcomes from peak performance years)</strong></td>
<td>• 58% of participants with initially high blood pressure improved their systolic or diastolic measures by at least five points</td>
<td>• 58% of participants with two or more readings had a decrease in blood pressure, lowering the average blood pressure reading from 146/84 to 132/79 mmHg</td>
<td>• Eight women reduced their body mass index by at least five points after three years</td>
</tr>
<tr>
<td></td>
<td>• 41% of participants reported increasing their physical activity level from the beginning to the end of the program by one level</td>
<td>• 88% of participants surveyed demonstrated increased knowledge in the disease process, risk factors and healthy habits</td>
<td>• 40% reduction in the number of participants scoring below the population norm on the Mental Component Summary of the SF-12 Quality of Life Instrument</td>
</tr>
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<tr>
<td>Table 3. (Cont’d)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization &amp; Program</td>
<td>Sustainability Efforts</td>
<td></td>
<td></td>
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<tr>
<td>------------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elkhorn Logan Valley Public Health Department Wisner, NE</td>
<td>Throughout three years of CCH funding for the program:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INTEGRATING THE PROGRAM:</strong></td>
<td>• Partnered with hospitals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Restructured from a solely community-based program to a fee-for-service worksite wellness-based model to reach more participants together rather than through one-on-one case management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SECURING FINANCIAL SUPPORT:</strong></td>
<td>• Applied for and achieved 501(c)(3) status for the ELVPHD Foundation to pursue additional funding opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Became an approved provider for several insurance companies to allow for a revised model with a fee-for-service structure for screenings to offset costs</td>
<td>• Continued to grow donor base, in part through increased awareness of the organization through a feature on “60 Minutes,” along with additional airings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Conducted giving campaigns with donors</td>
<td>• Utilized a consultant to improve the culture of giving and help cultivate and increase the private giving sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DISSEMINATING THE PROGRAM:</strong></td>
<td>• Developed a program toolkit and shared it at a conference</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Shared the program at conferences</td>
<td>• Shared the program during conferences, workshops and meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>St. Mary's Health Wagon Wise, VA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heart Health 1, 2, 3, Comprehensive Cardiovascular Disease Initiative for Diabetes Mellitus, Metabolic Syndrome, and Obesity</strong></td>
<td>Throughout four years of CCH funding for the program:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INTEGRATING THE PROGRAM:</strong></td>
<td>• Partnered with a college of pharmacy and a relief organization</td>
<td></td>
<td></td>
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<tr>
<td>• Integrated the program into day-to-day operation of the organization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SECURING FINANCIAL SUPPORT:</strong></td>
<td>• Secured additional funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Continued to grow donor base, in part through increased awareness of the organization through a feature on “60 Minutes,” along with additional airings</td>
<td>• Developed a Cardiovascular Fund for major gifts to support the Women's Heart Center and faith- and community-based programming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Conducted giving campaigns with donors</td>
<td><strong>DISSEMINATING THE PROGRAM:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Utilized a consultant to improve the culture of giving and help cultivate and increase the private giving sector</td>
<td>• Developed a program toolkit</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DISSEMINATING THE PROGRAM:</strong></td>
<td>• Presented program at conferences and with stakeholders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Shared the program at conferences</td>
<td>• Shared the program during conferences, workshops and meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Saint Agnes Foundation (Also known as Saint Agnes Hospital Foundation, Inc.) Baltimore, MD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Heart-to-Heart</strong></td>
<td>Throughout three years of CCH funding for the program:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>INTEGRATING THE PROGRAM:</strong></td>
<td>• Partnered with churches</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SECURING FINANCIAL SUPPORT:</strong></td>
<td>• Secured a grant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Developed a Cardiovascular Fund for major gifts to support the Women's Heart Center and faith- and community-based programming</td>
<td>• Conducted giving campaigns with donors</td>
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<tr>
<td><strong>DISSEMINATING THE PROGRAM:</strong></td>
<td>• Developed a program toolkit</td>
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<tr>
<td>• Presented program at conferences and with stakeholders</td>
<td>• Shared the program during conferences, workshops and meetings</td>
<td></td>
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</tr>
</tbody>
</table>
Educating Children to Serve as Heart Health Ambassadors
Introduction

Educating Children to Serve as Heart Health Ambassadors describes the innovation relative to CV health in particular communities and identifies how program design can reflect the social context of participants. It also provides an overview of how awardees using this approach furthered their sustainability efforts, describes common challenges faced by the CCH-funded organizations and suggests specific implementation strategies that are proven to empower children to serve as CV health ambassadors for their parents and siblings. Additional resources for community organizations pursuing this type of systems-based health promotion are offered in the Appendix.

A number of CCH awardees effectively improved the CV health and knowledge of entire family units by focusing on improving children’s CV health and knowledge. As the primary program participants, children were trained and empowered to serve as health change agents primarily for their parents and siblings. Previous research demonstrates that addressing the health needs of children in their communities, schools and homes has positive outcomes for parents and other family members.26, 27, 28, 29 A broader view of children as change agents for health recognizes them as individuals who make things happen in different social environments.30 Children can engage with health knowledge and skills in their own right and are not merely passive recipients of care and interventions. Specifically, children can serve as a health-promoting actor in the family context.31

A growing body of data suggests that children of vulnerable populations, such as those served by the CCH grant programs (e.g., those of racial and ethnic minority backgrounds, recent immigrants, migrant workers, rural populations and the uninsured and underinsured), are increasingly taking an active role in their own and their family members’ healthcare.32, 33, 34 Action-oriented, participatory health education is a well-defined educational approach and is embodied by the CCH awardees who engaged in this innovation. It aims to strengthen children’s desire and ability to influence the conditions that impact their health.

When children acquire CV health-related knowledge and skills, they become well placed to pursue a healthy life and to work for the improved health of their families and communities.35 This was evidenced in the clinical and behavioral CV health outcomes achieved by the children and their families who participated in the CCH-funded programs cited under this innovative approach.

Table 4. Overview of CCH-Funded Programs that Educated Children to Serve as Heart Health Ambassadors provides an overview of three CCH-funded programs that had an impact on the CV knowledge and health of participating family systems. Strategies for implementing this innovative approach are detailed on the following pages.
Strategies
Leveraging the desire of children to improve their own and their families’ CV health by integrating education and family systems, proved to be an impactful approach for many Grant Awardees. CCH-funded programs that successfully implemented this innovation utilized community school systems as a recruitment tool and a foundation from which to administer program activities. Table 4 provides specific examples of how awardees integrated various school and community environments into their action-oriented, participatory health education approach.

- **CCH** partner organizations using this innovative approach found it to be an efficient way of maximizing grant resources; schools provide a ready and clearly defined target population that allows for a focused and simple recruitment process. Few resources are required in identifying, categorizing and accessing school children, which thereby frees up resources to be allocated elsewhere. Alternatively, adults rarely present as part of a pre-existing, defined and recurring network (like children in a school) and generally may require outreach through various channels in order to reach and enroll them as participants. Thus, involving parents through their children is an efficient use of grant funding. Resources normally used for recruitment efforts can be allocated for more substantive program activities.

- An additional, positive outcome of this approach included strengthening the relationships between participating children and their parents.

- **CCH** awardees involved in this innovation also faced significant challenges with regard to program design due to constraints imposed by the traditional academic calendar. This approach requires careful planning in terms of scheduling and program milestones related to the fixed timing of school semesters.

- This approach requires relatively less resources for participant recruitment; it does, however, require a significant amount of time to develop necessary partnerships between program and school administrators.

- Several organizations found that the time required for such relationship-building had an adverse effect on successful program delivery, especially in the first year of a new program. These challenges were often overcome in the second year of grant funding, suggesting that this innovation may require at least a two-year commitment to program funding.

### Lessons LEARNED
- Simpler recruitment process
- Strengthened relationships between children and parents
- Program timing needed careful planning
- Building partnerships takes time
- Challenges often overcome in year two
Effective Program Practices

The majority of research has focused exclusively on parents as change agents for their children in an environment of diminishing healthcare resources. Empowering children to affect improvements in CV health and knowledge within their own families, however, has emerged as a surprising innovation toward systems change. This practice has been especially effective in CCH-funded programs serving ethnic and minority populations who face cultural and language barriers pertaining to healthcare.

There is significant variation in the program models that used this innovative approach. For example, some targeted children from specific elementary school cohorts or grades, some used screening instruments to identify children with specific CVD risk factors and some drew from community-based after-school programs. Despite these differences, each program that successfully employed children as agents of health change consistently exhibited several effective practices in terms of program design and implementation and organizational capacity. Nonprofit organizations interested in using a similar approach to improve CV health at the community level may benefit from adopting or modifying the following effective program practices. Examples of actual strategies used by Grant Awardees can be found in Table 4.

PROGRAM DESIGN AND IMPLEMENTATION
The ways in which programs are designed and utilized to address emerging community health needs

1. ENGAGEMENT AND EMPOWERMENT OF PROGRAM PARTICIPANTS
   - Encourage youth and family participants to take ownership of the change process
   - Recognize that community members have the right to participate in decision-making processes and to express their own concerns and priorities
   - Promote joint decision-making, implementation and accountability
   - Provide information the community needs and/or wants
   - Actively discuss issues with community members regarding proposed actions
   - Facilitate the identification of culturally sensitive personal health goals based on accepted guidelines
   - Hand over decision-making processes to youth and family program participants

2. INVOLVEMENT OF PARENTS/FAMILIES
   - Provide opportunities for children to share knowledge with their parents/families and/or for parents and children to participate in program activities together such as family nights, exercise sessions or educational events
   - Provide participants with incentives that recognize or encourage program attendance and/or promote healthy behaviors, when appropriate
ORGANIZATIONAL CAPACITY
The support and resources that affect an organization’s ability to effectively operate a program that educates children to serve as heart health ambassadors

1. SHARED ETHOS
   • Create a common vision of the program’s objectives and values that are to be endorsed through the school system or after-school program among program partners, including equity, safety, acceptance, self-determination and participation

2. ENVIRONMENT CONDUCIVE TO HEALTH PROMOTION
   • Provide a physical environment that includes safe and welcoming facilities that are conducive to participatory teaching
   • Create an environment that facilitates social connectedness and respect for differences, styles of communication and conflict management
   • Ensure care for the well-being of program participants as well as healthcare professionals and program administrators

3. RESOURCES AND PROFESSIONAL DEVELOPMENT FOR TEACHERS AND STAFF
   • Use a structured, process-oriented curriculum (in many cases, one that adheres to approved health outcomes, such as those provided by the American Heart Association or American Diabetes Association)
   • Provide training for teachers and staff that focus on student-oriented, participatory teaching methods
Common Challenges

Staff from programs that relied on children and adolescents as health change agents reported challenges related to cultivating relationships with program partners, engaging and retaining parents and/or families, and program design and the fixed timing of the academic calendar.

Cultivating Relationships with Program Partners
Staff found that developing program partner relationships was especially time and resource-intensive in the first year of a new program. With the benefit of hindsight, several organizations communicated the need to focus on these relationships early in the program design process. Similarly, fostering community buy-in requires time and strategic development.

Engaging and Retaining Parents/Families
In addition, engaging and retaining parents and/or families remained an ongoing challenge for many programs using this approach, particularly due to families’ competing schedules and priorities. Awardees each developed their own strategies to address this, but several awardees underscored the importance of working with families to solicit feedback and address needs, and the importance of providing programming in a culturally sensitive manner.

Program Design and the Fixed Timing of the Academic Calendar
This approach requires careful planning to ensure that program milestones align with the children’s school semester. For many programs, access to both human and capital resources was dependent on school being in session. Early and consistent participation by integral partners such as school administrators significantly enhanced the successful delivery of many of these programs.

The protracted timeline for achieving measurable outcomes required by these programs suggests that successive program iterations should be considered/included in the initial program design and that staff expectations should be adjusted accordingly.
Program Sustainability

Two aspects of the CCH-funded programs that educated children to serve as heart health ambassadors are noteworthy in promoting sustainability. First, several CCH-funded organizations effectively used the approach of empowering children to effect improvements in CV health and knowledge within their own families. Children possess the desire to improve their own and their families’ health. Recruitment of children in school settings proved successful and allowed for integration of education and family systems through them. Second, programs using this approach provided opportunities for children to share knowledge with their parents/families and/or for parents and children to participate in program activities together, such as family nights, exercise sessions or educational events. The benefits from these two effective practices are to facilitate sustainability of program efforts in these communities and should be considered when planning a similar program.

Conclusion

The CCH grant programs highlighted under this innovative approach demonstrate the potential of children as health change agents within their school and home environments. Parents are the traditional standard bearers of this role; however, current research and the experience of CCH-funded program participants show that children can be effective health ambassadors. When educated, empowered through genuine program participation, and given opportunities to partake in activities with their parents/families, children in CCH-funded programs took on roles as heart health ambassadors, sharing information with their families and working together with them to achieve improved CV health outcomes. While this innovation requires significant planning and design resources, as well as strategically timed and careful cultivation of collaborative partnerships, its benefits are far-reaching.
### Table 4.
**OVERVIEW OF CCH-FUNDED PROGRAMS THAT EDUCATED CHILDREN TO SERVE AS HEART HEALTH AMBASSADORS**

<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Disease Focus</th>
<th>Target Audience</th>
<th>Program Goal</th>
<th>Program Design &amp; Implementation</th>
</tr>
</thead>
</table>
| Christiana Care Health System Wilmington, DE  
*No Heart Left Behind* | General Cardiovascular Disease | Urban, African American teens and adult females in New Castle County, Delaware | To engage teens to increase their knowledge/confidence in their ability to make healthy lifestyle changes and connect with community-based resources and to teach these teens the skills to also improve the heart health and weight management of a mother or another important adult in their life | • Uses in-class and online curriculum to teach skills to improve mental health status, dietary habits, physical activity and stress management  
• Teens are empowered to coach an adult to make healthy lifestyle behavior changes and encourage their family/community to do so as well  
• Provides educational activities for adults and teens to attend together (e.g., meditation sessions, cooking demonstrations, a grocery store tour and dance classes)  
• Participants receive educational tools and incentives  
• Screens adults to assess their risk  
• Connects adults with community-based exercise and weight management programs |
| Family Focus Chicago, IL  
*Healthy Hearts & Families* | General Cardiovascular Disease | Urban, underserved minority families in Chicago, Illinois | To decrease the risk of CVD in underserved, low-income African American and Latino families by bridging the gap between existing services and families in need through health education and connections to healthcare providers | • Provides education workshops, physical fitness activities, health fairs and outreach  
• Offers health and nutritional and fitness education programs to provide parallel learning opportunities for parents and youth  
• Parent Health and Wellness Committees serve as program liaisons |
| Chesapeake Charities, Inc. (Formerly known as Foundation for Community Partnerships) Stevensville, MD  
*Partnering for Youth Cardio-Fit Project* | General Cardiovascular Disease | Rural, youth and families in Queen Anne's County, Maryland | To provide participants with the opportunity to learn the value of a personal, lifelong commitment to fitness and nutrition via Partnering for Youth's After School Program by increasing students' physical activity and knowledge of CV health and to provide other youth programs the opportunity to teach CV health using the Cardio-Fit Project’s unique model and resources | • Students learn the link between what they are told to do for their health and why it is important for their bodies  
• Students receive the knowledge, confidence, skills and motivation to understand the scientific connection between diet and exercise to maintain CV health  
• Students create a public awareness plan about CV health and share their achievements with family and the community |
### Table 4. (Cont’d)

<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Organizational Capacity</th>
<th>Measurable Outcomes</th>
<th>Sustainability Efforts</th>
</tr>
</thead>
</table>
| **Christiana Care Health System**  
*Wilmington, DE*  
*No Heart Left Behind* | • Shared ethos  
• Environment conducive to health promotion  
• Resources and professional development opportunities for teachers and staff | • Adults’ self-reported days of 30 or more minutes of physical activity increased over the eight-week program from a mean of 1.95 days per week to a mean of 2.3  
• Adults increased their daily servings of fruit from 1.6 to 2.8 servings and daily servings of vegetables from 1.9 to 2.8 servings during the second half of the grant year  
• Teens’ self-reported average daily consumption of sugar-sweetened beverages decreased from 2.69 to 1.94 | Throughout three years of CCH funding for the program:  
**INTEGRATING THE PROGRAM:**  
• Partnered with community-based organizations that serve underserved, low-income African American families to continue the program  
• Integrated the program into the organization’s other existing programs  
**SECURING FINANCIAL SUPPORT:**  
• Billed Medicaid and private insurance companies for the group cognitive-behavioral sessions  
**DISSEMINATING THE PROGRAM:**  
• Packaged and presented curriculum to community organizations  
• Delivered presentations at conferences |
| **Family Focus**  
*Chicago, IL*  
*Healthy Hearts & Families* | • Shared ethos  
• Environment conducive to health promotion | • 80% of participants could describe why CV health was important  
• 17% increase in the number of participants able to identify causes of heart disease  
• 16% increase in the number of participants who recognized that heart disease is the number one killer of women | Throughout two years of CCH funding for the program:  
**INTEGRATING THE PROGRAM:**  
• Partnered with a hospital, medical offices and a public health department  
• Incorporated the program into the organization’s other existing programs  
**SECURING FINANCIAL SUPPORT:**  
• Secured a grant  
• Applied for funding through corporations and foundations  
**DISSEMINATING THE PROGRAM:**  
• Developed a program toolkit and shared it during presentations  
• Presented program at conference and to other organizations |
| **Chesapeake Charities, Inc.**  
(Formally known as Foundation for Community Partnerships)  
*Stevensville, MD*  
*Partnering for Youth Cardio-Fit Project* | • Shared ethos  
• Environment conducive to health promotion  
• Resources and professional development opportunities for teachers and staff | • 78.7% of participants maintained or improved Progressive Aerobic Cardiovascular Endurance Run (PACER) performance  
• 64% of program participants achieved body mass indices in the normal range  
• 91% of participants reported improved knowledge of fitness and nutrition | Throughout four years of CCH funding for the program:  
**INTEGRATING THE PROGRAM:**  
• Partnered with the county Board of Education and county health department and a sports complex/gym  
• Program activities were integrated into existing programs at some schools  
**SECURING FINANCIAL SUPPORT:**  
• Secured grants and funds  
• Collected participant fees  
• Solicited donations from parents of children participating in the program  
**DISSEMINATING THE PROGRAM:**  
• Developed a program toolkit and shared it during presentations  
• Presented program at conference and to other organizations |
INNOVATIVE APPROACH

Improving Cardiovascular Health through Food-Based Programs
Introduction

Improving CV Health through Food-Based Programs is intended to serve as an implementation guide for other nonprofit organizations interested in using a similar innovative approach to improve CV health in their communities. It describes the innovation relative to CV health in particular communities, identifies how program design can reflect the social context of participants and provides an overview of how awardees using this approach furthered their sustainability efforts. It also describes common challenges faced by the CCH-funded organizations responsible for pioneering this innovative approach and suggests specific implementation strategies that are proven to enhance the CV health and knowledge of program participants and their communities by focusing on food production and/or promoting a plant-based diet. Additional resources for organizations pursuing this type of community-based health promotion are offered in the Appendix.

Community health interventions to address poor nutrition, especially those that focus on increased access to quality food among at-risk populations, have proven effective in reducing CVD risk factors.\textsuperscript{38, 39, 40, 41, 42, 43, 44} Several CCH awardees successfully leveraged food-related initiatives as a means of improving the CV health of program participants and the wider community. Specific program activities included general nutrition and CVD prevention education classes, growing fruits and vegetables, promoting a plant-based diet, doubling the value of government assistance nutrition benefits at farmers’ markets and facilitating partnerships with community food distribution networks.

The CCH awardees who implemented food-based programs fell into two general categories: primary prevention (comprising of health promotion and specific protection) and secondary prevention. Programs focused on health promotion were designed to help participants establish healthy eating habits early in life and provide them with tools to maintain those behaviors throughout their lives. The goal of programs focused on specific protection was to help people with risk factors for CVD prevent or postpone the onset of disease by establishing healthier eating habits. Programs focused on secondary prevention were designed to help populations that already have CVD cope with and control their conditions and to prevent additional disability through establishing more healthful eating patterns.

Table 5. Overview of CCH-Funded Food-Based Programs that Positively Impacted CV Health provides an overview of three CCH-funded programs whose participants demonstrated improvement in their CV knowledge and health as a result of food-based initiatives. Strategies for implementing this innovative approach are detailed on the following pages.
Strategies

The organizations featured under this innovative approach have each focused on improving CV health through food-based programs.

- Strategies included school-based produce-growing programs in which students grew produce and sold it at local farmers’ markets; having healthcare providers write “prescriptions” for fruits and vegetables that could be redeemed at farmers’ markets; providing participants with vouchers for fresh fruits and vegetables; and successfully encouraging not only participants, but also local restaurants in the community, to adopt plant-based diets.

- These programs largely involved increasing access to fresh fruits and vegetables, especially in communities designated as “food deserts” where residents face frequent healthcare-related barriers as a result of high levels of poverty and minimal access to affordable, quality food.

- Hence, they tended to have fewer measurable clinical outcomes and less participants tracked for progress toward improved health metrics compared to CCH-funded programs that used other innovative approaches to improve CV health.\(^{45}\)

- Some of the food-based programs faced challenges retaining program participants and sustaining partnerships related to program delivery, contributing to fewer numbers of participants tracked for progress.

- Food-based programs reached large number of participants (e.g., through schools and farmers’ markets) but collected fewer clinical outcome measures, largely due to the nature of their program design.

- Programs from both of the broad categories discussed above—primary prevention and secondary prevention—demonstrated the most impact in behavioral measures related to individual and community eating habits.
Effective Program Practices

Promoting widespread healthy eating habits requires attention to multiple behavioral and environmental influences. The planning, procurement, preparation and provision of a heart healthy diet involves a range of individuals and groups within a community.

Community members of all ages are more likely to adopt healthy behaviors if they receive consistent messages through multiple channels (e.g., home, school, civic and religious organizations and the media) and from multiple sources (e.g., peers, parents, teachers, health professionals, community leaders, employers and local media).46, 47

*CH awardees that were successful in improving the CV knowledge and health of their participant communities simultaneously addressed multiple spheres of influence relative to their participants, including intrapersonal factors, interpersonal factors, institutional factors and community factors.

1 **Intrapersonal factors** included the individual characteristics that influence behavior such as knowledge, attitudes, beliefs and personality traits.

2 **Interpersonal factors** included the processes and interactions with primary groups that include family, friends and peers, all of which provide social identity, support and role definition.

3 **Institutional factors** were the institutional determinants of program outcomes.

4 **Community factors** included social networks and norms (or standards), which existed both formally and informally among individuals, groups and organizations.

What follows is a description of the effective practices of *CH-funded programs that were successful in integrating these factors. Nonprofit organizations interested in using a similar approach to improve CV health at the community level may benefit from adopting or modifying these practices. Examples of actual strategies used by Grant Awardees can be found in Table 5.
PROGRAM DESIGN AND IMPLEMENTATION
The ways in which food-based programs are designed and utilized to address emerging community health needs

1 ADDRESSING INTRAPERSONAL/INDIVIDUAL FACTORS
- Tailor CVD risk information based on an individual’s characteristics or behaviors
- Help the individual develop an accurate perception of his or her own CVD risk
- Specify the consequences of a medical condition and recommended actions to prevent or manage the condition
- Explain how, where and when to take action and what the potential positive results will be
- Offer reassurance, incentives and assistance; correct misinformation

2 ADDRESSING INTERPERSONAL FACTORS
- Consider multiple ways to promote behavior change, including making adjustments to the environment to expand access to healthier foods or influencing personal attitudes
- Promote mastery learning through skills training
- Model positive consequences of healthful behavior
- Approach behavior change in small steps to ensure success; be specific about the desired change
- Promote self-initiated rewards and incentives
- Offer credible role models who perform the targeted behavior
- Engage and encourage families to participate in the program

3 ADDRESSING INSTITUTIONAL FACTORS
- Use recruitment practices that support the fulfillment of participants’ CV health and social expectations, e.g., involving community partners/corner stores in recruitment efforts
- Implement structures and processes that alleviate racial and/or socio-economic disparities in program access, e.g., offering services in community locations and facilitating transportation
- Help participants navigate through program experiences to ensure successful outcomes
- Develop and support activities that focus on participant decision-making and accountability
- Support frequent and significant interactions between program participants and other stakeholders
- Provide financial aid, such as vouchers for produce, particularly in low-income populations

4 ADDRESSING COMMUNITY FACTORS
- Allow community members to assume greater influence, or expand their influence from within, to create desired lifestyle changes
- Encourage community members to participate actively in community life, thereby gaining leadership skills, social networks and access to power
- Foster the development of leadership skills, knowledge and resources for community members through their involvement in social networks
- Allow community members to create their own CV health agenda based on felt needs, shared influence and awareness of available resources
Common Challenges

The most common challenges faced by organizations seeking to improve CV health through food-based programs were related to the relatively unconventional nature of the programs and the need for clinical data collection.

Unconventional Nature of the Programs

The integration of food provision and instruction related to food preparation, storage and consumption with more traditional elements of community-based health initiatives require different kinds of staff expertise as well as added levels of education for community members. Participant recruitment and retention were especially challenging for organizations without a traditional healthcare label, which typically presents an existing catchment population from which to recruit and engage program participants. Other organizations reported difficulty accessing transportation, inadequate storage space for fresh produce, a lack of working kitchen facilities and limited cooking skills as barriers to participation for their underserved community members. These programs also required significant coordination among various agencies. Program staff with culinary and/or nutritional expertise relied heavily on community partners to ensure that the educational components of food-based programs were culturally sensitive and delivered at appropriate literacy levels for the target population.

Need for Clinical Data Collection

Given that the focus for many food-based programs was on providing access to fresh produce and improving behavioral metrics, these programs tended to collect fewer clinical measures that could demonstrate the program’s impact on CV risk factors. Organizations using this approach may benefit from partnering with a local hospital or clinic that can assist in collecting clinical outcome metrics and provide expertise in diagnosing and treating CVD. In addition, this partnership could help overcome recruitment challenges by serving both as a referral and recruitment source.
**Program Sustainability**

By design, organizations that focused on improving CV health through food-based programs used a social ecological framework. Addressing intrapersonal, interpersonal, institutional and community factors, these programs have laid the initial structure and foundation for an integrated and multi-level approach to CV health through food-based programs. Such carefully designed programs position themselves toward future sustainability through the synergistic relationships between the various levels. Reaching sustainability is a long, complex process. Grant Awardee organizations are learning and implementing how best to leverage their existing partnerships, identify and nurture new collaborations and find optimal ways to build the grant-funded activities into their regular programs and services. Healthy eating benefits not only CV health but also other conditions such as diabetes, overweight and obesity that could be co-existent.

**Conclusion**

Food-based CCH-funded programs confirmed that nutritional interventions can positively influence CV health, especially those measures related to behavioral outcomes, at the individual and community levels. Although these programs were implemented in varying contexts, the foundation for each food-based CCH-funded program model was based on the understanding that community nutrition interventions include educational components, as well as advocacy, organizational change efforts, economic supports, environmental change and interdisciplinary strategies. This perspective highlights the importance of approaching public health problems at multiple levels and stressing interaction and integration of factors within and across several successively complex levels. Careful planning and strategic partnerships with other community organizations are critical in ensuring that providers with the requisite expertise are involved and the myriad of participant barriers are addressed. Grant Awardees who were able to implement and begin sustaining effective food-based programs recognized the importance of expanding access to healthy food in populations where access was previously limited. These lessons offer insights for the development of other food-based programs aimed at improving CV health at the community level.
<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Sankofa Community Development Corporation New Orleans, LA</th>
<th>Cary Medical Center Caribou, ME</th>
<th>The Food Trust Philadelphia, PA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization &amp; Program</strong></td>
<td>Sankofa HEAL Project*</td>
<td>Healthy Hearts – Healthy Communities</td>
<td>The Healthy Corner Store Network “Heart Smarts” Program</td>
</tr>
<tr>
<td><strong>Disease Focus</strong></td>
<td>Obesity</td>
<td>General Cardiovascular Disease</td>
<td>General Cardiovascular Disease</td>
</tr>
<tr>
<td><strong>Target Audience</strong></td>
<td>Urban, African American youth and adults in New Orleans, Louisiana</td>
<td>Rural, low-income residents of Aroostook County, Maine</td>
<td>Low-income, youth and adult minority residents of Philadelphia, Pennsylvania</td>
</tr>
<tr>
<td><strong>Program Goal</strong></td>
<td>To teach youth and their families about the health benefits of eating fresh fruits and vegetables and associated risk reduction for overweight/obesity, hypertension, CVD, type 2 diabetes and related disorders, and provide heart health and nutrition education to adolescent youth through the development of a school garden, active participation in farmers’ markets and a specific garden curriculum with integrated nutrition education.</td>
<td>To reduce the incidence of CV-related morbidity, mortality and cost burden, and to increase quality of life while creating and promoting the identity of northern Maine as a dedicated model for improved CV health and disease outcomes.</td>
<td>To reduce modifiable risk factors for heart disease through corner store-based education on good nutrition and healthy behaviors; increased access to affordable, nutritious food; new policy measures to curb tobacco use; and through piloting an innovative model to integrate free health screenings in healthy corner stores with a health referral process for at-risk adults.</td>
</tr>
<tr>
<td><strong>Program Design &amp; Implementation</strong></td>
<td>• Students learn about agriculture and sustainable development and are taught gardening skills through which they learn to grow and harvest produce. • Students learn leadership skills and job skills through working as paid staff at the Sankofa Farmers’ Market and Learning Gardens. • Students participate in nutrition education classes to increase awareness of the health benefits of foods and the relationship between CVD risk factors and diet. • Students are empowered as peer leaders and decision-makers in their community; they engage youth in health and nutrition education at school-based health fairs and collaborate with churches and community-based organizations to share information. • Uses Veggie Power Dollars program, a produce incentive program for low-income families and seniors at a farmers’ market.</td>
<td>• Offers Healthy Hearts Club incentive program with web-based interactive activities. • Provides clinical nutritional counseling for patients with CVD. • Encourages transition to plant-based diet. • Places emphasis on families and children, diabetes patients and healthy lifestyles transformation through “Stages of Change” behavioral health methodology. • Uses focus groups for low-income families to identify barriers to accessibility of healthy food and physical activity. • Recruits restaurants, farms and grocery stores to increase access to healthy foods and heart-healthy menu options. • Uses Healthy Hearts Bucks (program currency) to incentivize use of the farmers’ market.</td>
<td>• Provides training, resources and technical support for store owners and incentivizes them to stock and market affordable healthy food. • Offers store- and community-based education on healthy eating and heart disease prevention that includes taste tests and cooking demonstrations. • Provides free screenings for blood pressure, body mass index and stroke as well as heart disease risk assessment by health professionals in stores; at-risk individuals are referred to health providers or local clinics and encouraged to return to stores for screening and education. • Leverages free Heart Health Mobile app to track participant progress and share information with their health providers.</td>
</tr>
</tbody>
</table>
### Table 5. (Cont’d)

<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Measurable Outcomes</th>
<th>Sustainability Efforts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sankofa Community Development Corporation</strong>&lt;br&gt;New Orleans, LA&lt;br&gt;<em>Sankofa HEAL Project</em></td>
<td>• 7.75 reduction in mean body mass index between Health Fairs 1 and 2&lt;br&gt;• 9% increase in the number of students who answered all CVD questions correctly on the CVD post-test between Health Fair 1 and 2&lt;br&gt;• 86% of participants experienced increased fruit and vegetable consumption after joining the Veggie Power Dollars program</td>
<td>Throughout three years of CCH funding for the program:&lt;br&gt;<strong>INTEGRATING THE PROGRAM:</strong>&lt;br&gt;• Integrated the program into other existing programs of the organization&lt;br&gt;• Partnered with schools&lt;br&gt;<strong>SECURING FINANCIAL SUPPORT:</strong>&lt;br&gt;• Secured funds&lt;br&gt;• Partnered with university and secured five-year federal grant&lt;br&gt;• Generated revenue through sales of produce&lt;br&gt;• Conducted online fundraiser with other nonprofits&lt;br&gt;• Worked with a strategic planning consultant to develop financial forecasting and systems to ensure financial sustainability&lt;br&gt;<strong>DISSEMINATING THE PROGRAM:</strong>&lt;br&gt;• Presented at conferences and with stakeholders&lt;br&gt;• Developed a program toolkit</td>
</tr>
<tr>
<td><strong>Cary Medical Center</strong>&lt;br&gt;Caribou, ME&lt;br&gt;<em>Healthy Hearts – Healthy Communities</em></td>
<td>• 11% increase in participants’ general knowledge of heart disease&lt;br&gt;• 18% increase in participants’ healthy eating habits&lt;br&gt;• 15% increase in the number of participants who reduced red meat consumption</td>
<td>Throughout two years of CCH funding for the program:&lt;br&gt;<strong>INTEGRATING THE PROGRAM:</strong>&lt;br&gt;• Partnered with local grocery stores, restaurants, Chambers of Commerce, farmers organizations, clinics/health centers and a local TV station&lt;br&gt;• Integrated a program component into another existing program of the organization&lt;br&gt;<strong>SECURING FINANCIAL SUPPORT:</strong>&lt;br&gt;• Secured funds&lt;br&gt;• Conducted fundraising events</td>
</tr>
<tr>
<td><strong>The Food Trust</strong>&lt;br&gt;Philadelphia, PA&lt;br&gt;<em>The Healthy Corner Store Network “Heart Smarts” Program</em></td>
<td>• Among participants with measurable weight outcomes, 42.2% of participants lost weight, with an average weight loss of 8.31 pounds&lt;br&gt;• Among participants with elevated blood pressure who returned for subsequent screenings, 40.35% of participants showed improvement in systolic blood pressure and 60.5% showed improvement in diastolic blood pressure&lt;br&gt;• 51.6% of participants with elevated blood pressure who were contacted by phone after screening reported having followed up with their primary care physician</td>
<td>Throughout one year of CCH funding for the program:&lt;br&gt;<strong>INTEGRATING THE PROGRAM:</strong>&lt;br&gt;• Partnered with local organizations to help implement the program, including a university for screenings and education, a public health department for strategic and financial support and program promotion, libraries as sites for education and a local network of corner stores as sites for screening/education and access to and marketing of healthy foods&lt;br&gt;<strong>SECURING FINANCIAL SUPPORT:</strong>&lt;br&gt;• Secured funds from foundations and other sources&lt;br&gt;<strong>DISSEMINATING THE PROGRAM:</strong>&lt;br&gt;• Presented at conferences</td>
</tr>
</tbody>
</table>

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*The Sankofa HEAL Project has since evolved to a community health ambassador model and is currently known as the Healthy HeartBeats program.*
Using Health Coaches/Promotores to Improve Cardiovascular Health
Introduction

**Using Health Coaches/Promotores to Improve CV Health** focuses on employing health coaches or *promotores* as an effective means of improving CV health. It describes the innovation relative to CV health in particular communities, identifies how program design can reflect the social context of participants and suggests specific implementation strategies that are proven to maximize the efficacy of this innovative practice. It also provides an overview of how awardees using this approach progressed toward their sustainability efforts and relays how to address common challenges associated with this approach. Additional resources for organizations pursuing this type of community-based health promotion are offered in the Appendix.

Several model *CCH* awardees employed health coaches to enhance the reach and impact of their programs. Contemporary research on community health initiatives shows that programs using health coaches, health ambassadors or *promotores* tend to have more success than programs that do not use this innovation.\(^49, 50, 51, 52, 53\) *CCH*-funded programs using this approach included efforts to help participants gain the knowledge, skills, tools and confidence to become active participants in their health management and reach their self-identified health goals.

Fundamental to this approach is the distinction between appropriate models of acute care and chronic care. Individuals in acute, medical distress require swift and directive action from medical professionals. Individuals coping with chronic conditions, such as CVD and related complications, need the knowledge, skills and confidence to participate in their own care.\(^54\)

- **CCH-funded programs that adopted the latter, more collaborative approach, demonstrated the highest levels of success in terms of achieving stated outcome goals.**

- **In fact, CCH-funded programs that adopted this innovation consistently demonstrated positive program impacts for one or more of the following clinical measures: weight, body mass index, blood pressure, cholesterol or hemoglobin A1C.**\(^55\)

- **Evidence from awardees using this innovation also supports other research indicating that health coaches can be especially effective in at-risk populations.**\(^56, 57, 58\)

- **The target populations of the CCH-funded programs highlighted under this innovative approach included ethnic minorities and other underserved populations, such as senior citizens and residents of remote or rural locations.**

**Table 6. Overview of CCH-Funded Programs that Employed Health Coaches/Promotores to Enhance Program Impact** provides an overview of three *CCH*-funded programs that effectively utilized health coaches in their efforts to improve CV health. Strategies for implementing this innovative approach are detailed on the following pages.
Strategies

The various organizations and CCH-funded programs highlighted under this innovative approach come from a variety of geographic locations and serve communities with diverse CV health needs. While the focus of their particular CVD programs may differ, each has found that the use of health coaches has positively impacted its ability to achieve substantial program outcomes.

Only since 2017 has there been a path toward licensures for health coaches, which are based on recently identified national standards. Among the many health coach training and certification programs available, most are based on life coaching models or popular psychological theories, and few have been developed or evaluated by specialists in health-related behavior change or chronic care.59

Research shows that successful health coaching models differ from traditional models of healthcare delivery in specific ways. Health coaching relies on principles of collaboration, empathy and support for autonomy, whereas education and authority characterize more traditional medical models.60, 61, 62

Effective Program Practices

Regardless of a program’s particular CVD focus and desired health outcomes, CCH awardees who excelled in using health coaches/promotores to improve CV health incorporated effective practices at the program and organization levels that allowed the health coaches and promotores to maximize their role. What follows are both health coach practices and program practices that contributed to the effectiveness of organizations using this innovative approach. Nonprofit organizations interested in using a similar approach to improve CV health at the community level may benefit from adopting or modifying these practices. Examples of actual strategies used by Grant Awardees can be found in Table 6.
Effective Program Practices

1. **ADDRESSING PARTICIPANT MOTIVATION**
   - Use motivational interviewing, when appropriate, to elicit behavior change
   - Consider incentives to recognize participants’ efforts and achievements and to encourage follow-up
   - Consider organizing health challenges for participants to help increase motivation

2. **INDIVIDUALIZED CARE**
   - Personalize care plans and tailor them to the individual
   - Address the participant’s individual barriers to lifestyle change, including socio-emotional needs, by providing comprehensive services, such as including counseling sessions or using referral services when needed

3. **CREATING AN ENVIRONMENT THAT IS SUPPORTIVE OF LIFESTYLE CHANGES**
   - Include opportunities for participants to eat healthier and exercise while on site for the program, such as through including free exercise classes, walking clubs and access to healthy foods through local vendors

4. **DEVELOPING PARTICIPANT ACCOUNTABILITY AND COMPLIANCE**
   - Prioritize overall wellness and preventive care for self, while considering the culture; for some cultures, benefit to family may be more important than benefit to self
   - Maintain realistic expectations and take a slow-but-steady approach when working to achieve participant accountability goals
   - Provide program participants with the educational tools they need
   - Mitigate participant barriers to accessing program services, such as challenges with transportation or childcare (e.g., provide gas cards, set up a carpool system, offer a children's class at the same time as the adult class, etc.)
   - Prioritize convenience (e.g., expanding hours of program delivery or making appointment scheduling available 24/7)
   - Ensure participant buy-in for the program by including participants in every step and empowering them to have a sense of ownership for the program and their health

5. **SOCIAL SUPPORTS AND TEAM-BUILDING ACTIVITIES**
   - Offer community-based social support interventions that focus on changing behavior through building, strengthening and maintaining social networks and supportive relationships (e.g., setting up a buddy system, making contracts with others to complete specific activities or offering an activity group to provide friendship and support)
   - Engage families in the program, as appropriate, to encourage the practice of healthy behaviors at home
**PROGRAM DESIGN AND IMPLEMENTATION**
The ways in which health coaching program models are designed and utilized to address emerging community health needs

**BUILDING RELATIONSHIPS IN THE COMMUNITY**
- Partner with community-based organizations for services, program recruitment and/or referrals, as appropriate, and keep community leaders engaged in the program

**Effective Health Coach Practices**

1. **PROVIDING SELF-MANAGEMENT SUPPORT AND EDUCATION**
   - Provide information to the participant
   - Show the participant how he/she has progressed on his/her clinical measures
   - Teach the participant disease-specific skills and health literacy
   - Promote positive behavior change for the participant
   - Impart problem-solving skills to the participant
   - Assist with the emotional impact of chronic illness
   - Encourage the participant to attend follow-up appointments
   - Encourage the participant's engagement in program activities

2. **PROVIDING EMOTIONAL SUPPORT**
   - Show interest in the participant's needs and concerns
   - Inquire about the participant’s emotional issues
   - Show compassion toward the participant
   - Teach the participant coping skills

3. **SERVING AS A CONTINUITY FIGURE**
   - Provide familiarity to the participant
   - Establish trust with the participant
   - Be available to answer the participant’s questions and/or discuss concerns
   - Follow up with the participant between medical visits
ORGANIZATIONAL CAPACITY
The support and resources that affect an organization’s ability to effectively use a health coaching model

Effective Program Practices

1. CULTURALLY-COMPETENT WORKFORCE
   - Consider hiring adult or teen health coaches from the target communities with a well-rounded knowledge of the community’s needs, resources and cultural practices

2. MULTI-DISCIPLINARY TEAM-BASED APPROACH
   - Use a multi-disciplinary team-based approach to provide case-management services, and include such components as nutrition counseling, physical activity, psychosocial support and clinical care
   - Ensure there is adequate staffing to support the needs of the program (e.g., consider incorporating at least one full-time staff position dedicated to the program’s operations)
   - Coordinate health coaching with primary care services

3. ALTERNATIVE, SUSTAINABLE FINANCING
   - Incorporate reimbursable services, when applicable
   - Establish care management contracts with health insurers

4. ELECTRONIC HEALTH RECORD (EHR) OR ELECTRONIC MEDICAL RECORD (EMR)
   - Create longitudinal electronic records of patient health information generated during initial screenings and follow-up encounters
   - Generate a complete record of clinical encounters as well as other care-related activities, including evidence-based decision support, quality management and outcomes reporting

Effective Health Coach Practices

1. BRIDGING THE GAP BETWEEN CLINICIAN AND PARTICIPANT
   - Serve as the participant’s liaison
   - Ensure that the participant understands and agrees with the care plan
   - Provide cultural and language-concordance for the participant and adjust approach once literacy level is established
   - Offer guidance and support as the participant works toward achieving health goals

2. HEALTHCARE SYSTEM NAVIGATION ASSISTANCE
   - Connect the participant with culturally appropriate and language-specific materials and other resources
   - Facilitate support for the participant as it relates to accessing care and other benefits
   - Empower the participant to be active in any decision-making related to his/her well-being
   - Ensure the participant’s voice is heard
Common Challenges

While the use of health coaches and promotores can considerably improve the impact and reach of community health initiatives, this innovative strategy comes with challenges that need to be recognized and possibly overcome.

Data Collection, Management and Retrieval

CCH awardees in this category found that the cyclical or rolling nature of these programs generates extensive amounts of complex data, making aggregate statistical analysis and reporting difficult. In addition to the prevention of duplicate data, staff from these programs found the collection, management and retrieval of such large amounts of data to be extremely resource intensive. Several programs recognized that electronic health records could greatly improve their capacity to manage and use data in a more efficient and meaningful way. Organizations should begin with the end in mind when developing processes for collecting and storing data. It is important that organizations identify outcomes to assess that will be necessary to demonstrate impact and consider how data will be analyzed and how reports will be generated up front. An external evaluation partner can be an asset to help analyze the data and provide recommendations to improve the data collection and retrieval process.

Program Participant Retention

Programs utilizing health coaches and promotores also struggled to retain program participants in successive iterations. Some programs noted that more intricate systems of patient accountability, such as weekly or daily check-ins, resulted in higher levels of retention. Additionally, increased team building activities and social supports from both peers and community institutions were associated with improvements in participants’ willingness to change.

Staffing Turnover

Further, several awardees using this innovative approach reported challenges with staffing turnover or inadequate staffing levels to support the needs of the program. Some awardees noted the importance of ensuring there was a full-time staff member dedicated to the program, while others developed community partnerships to address gaps in service and to recruit volunteers. To alleviate the effects of staffing turnover, organizations should consider cross-training staff members in various roles/responsibilities, when possible, so that important program knowledge remains even after a staff member departs the organization.
Program Sustainability

The use of health coaches/promotores in community-based CV health programs appears to lend itself well to building program sustainability, based on several of the effective practices previously mentioned. Individuals who are coping with chronic conditions, such as CVD and related complications, need the knowledge, skills and confidence to participate in their own care. Several CCH Grant Awardees used health coaches/promotores in their programs to improve the CV health of participants by addressing their need for knowledge, skills and confidence. This approach enhances future sustainability as health coaches/promotores are often drawn from the communities that they serve. Promotores with social and cultural ties to the communities they serve are likely to continue doing so. Use of community-based social support interventions that focus on changing behavior through building, strengthening and maintaining social networks and supportive relationships (e.g., setting up a buddy system, making contracts with others to complete specific activities or offering an activity group to provide friendship and support) enhance cohesiveness among members of the community. Promotores, through understanding the culture and especially speaking the same language as community members, serve as a trusted link between nonprofit organizations and the community they serve. Health coaches/promotores are particularly positioned to provide the continuity essential for long-term sustainability and success of these programs.

Conclusion

Health coaching helps individuals build the knowledge, skills and confidence required to manage their chronic conditions and improve their health. Health coaches/promotores empower people to play a central role in their own medical encounters and to engage in self-management activities at home, work and school, where they spend most of their lives. Despite challenges associated with data management and sustained engagement, CCH awardees found that health coaches/promotores made a critical difference in the lives of many minority and low-income individuals with chronic and preventable CVD by being a consistent part of their lives and guiding them through the complex web of healthcare systems. Health coaches lived in the same communities where they served, thus enhancing their ability to recruit, connect with and build lasting relations with program participants.
<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Disease Focus</th>
<th>Target Audience</th>
<th>Program Goal</th>
<th>Program Design &amp; Implementation</th>
</tr>
</thead>
</table>
| Dr. Arenia C. Mallory  | Obesity      | Low-income, African American and Latino youth and adults in Ventura County, California | To reach indigent, underserved Latino communities with heart healthy services that support the whole person, are culturally competent, create healthy environments in communities of color and engage youth of the low-income community in promoting heart health and serving their neighbors | - Participants receive physical, nutritional, psychosocial and fitness assessments  
- Participants work with a physician, dietitian, certified personal trainer and behavioral health specialists to develop and adhere to individualized wellness plans  
- Includes wellness and nutrition education, physical activity, ongoing case management support and group activities, such as cooking demonstrations and grocery store outings  
- Uses evidence-based weight loss interventions with emphasis on behavior modification  
- Uses a point-based system to provide participants with incentives for behavior changes |
| Community Health Center, Inc. Lexington, MS | General Cardiovascular Disease and Diabetes | Low-income, African American women in Holmes and Madison counties in Mississippi | To reduce the risk of heart disease among low-income, African American females by implementing a comprehensive CV wellness program that includes medical, nutrition, fitness and behavior counseling with a targeted stress management and lifestyle change intervention while also providing enjoyable and engaging community-based interventions for women to increase physical activity, make healthier food choices, cultivate support and lose weight | - Low-income, bilingual teen promotores are trained to conduct outreach and offer free blood pressure and glucose screenings in low-income Latino neighborhoods  
- Those at high risk are referred for regular access to a team of volunteer medical specialists  
- Offers weekly one-hour bilingual health education sessions that include cooking demonstrations, food tasting and Zumba and yoga classes; a socio-emotional program; and one-on-one counseling, goal setting and case management  
- Includes a healthy hearts kids club for participants’ children to learn similar heart health messages  
- Provides immediate incentives and uses a point-based system for incentives |
| Dr. Martha W. Davis Healthy Families Movement Program | | | | - Provides off-site community education workshops and on-site case management and coordination for participants  
- Trains ambassadors, existing patients who live in public housing developments and currently manage their CVD, to conduct outreach, self-management goals, motivational interviewing and CV health education |
### Table 6. (Cont’d)

<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Organizational Capacity</th>
<th>Measurable Outcomes</th>
<th>Sustainability Efforts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Arenia C. Mallory</td>
<td>• Uses a multi-disciplinary team-based approach to provide case-management services</td>
<td>• 93% of participants increased nutrition knowledge survey scores</td>
<td>Throughout three years of CCH funding for the program:</td>
</tr>
<tr>
<td>Community Health Center, Inc. Lexington, MS</td>
<td>• Incorporates reimbursable services</td>
<td>• 63% decreased A1C levels that were greater than six</td>
<td>INTEGRATING THE PROGRAM:</td>
</tr>
<tr>
<td>Dr. Martha W. Davis Healthy Families Movement Program</td>
<td></td>
<td>• 84% demonstrated a reduction in stress</td>
<td>• Partnered with local schools, colleges and universities and gyms</td>
</tr>
<tr>
<td>Westminster Free Clinic Thousand Oaks, CA</td>
<td>• Uses a multi-disciplinary team-based approach to provide case-management services</td>
<td>• 94% of participants reduced their triglyceride levels by an average of 50 points or maintained their levels within normal range</td>
<td>SECURING FINANCIAL SUPPORT:</td>
</tr>
<tr>
<td>Corazones Sanos (Healthy Hearts) Program</td>
<td>• Local teen promotores are part of the team and are active in all parts of program implementation and evaluation</td>
<td>• 88% of new participants reduced their low-density lipoproteins (LDL) or maintained it within normal range</td>
<td>• Charged a nominal participant fee when necessary</td>
</tr>
<tr>
<td>Whittier Street Health Center Roxbury, MA</td>
<td>• Uses a culturally-competent workforce</td>
<td>• 73% of participants reduced their glucose levels by an average of 33.3 points or maintained their levels within normal range</td>
<td>• Applied for funding from national organizations and community foundations</td>
</tr>
<tr>
<td>The Whittier Connections for Cardiovascular Care</td>
<td></td>
<td>• 61% of participants improved their systolic blood pressure by at least 20 mmHg</td>
<td>• Partnered with state agencies and local health departments to seek additional grant funding, incentives and education materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 57% of participants reduced their low-density lipoprotein (LDL) levels by at least 20 mg/dL</td>
<td>• Secured funds from foundations, corporations and other sources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 75% of participants scored at least 75% in the self-reported behavioral changes post-test</td>
<td>DISSEMINATING THE PROGRAM:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Presented patient health ambassadors model to clinicians, community health workers, grant funders, department of public health staff and other organizations</td>
</tr>
</tbody>
</table>

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**Using Health Coaches/Promotores to Improve Cardiovascular Health**

**Organizational Capacity**

- Uses a multi-disciplinary team-based approach to provide case-management services
- Incorporates reimbursable services

**Measurable Outcomes**

(Selected year-end outcomes from peak performance years)

- 93% of participants increased nutrition knowledge survey scores
- 63% decreased A1C levels that were greater than six
- 84% demonstrated a reduction in stress
- 94% of participants reduced their triglyceride levels by an average of 50 points or maintained their levels within normal range
- 88% of new participants reduced their low-density lipoproteins (LDL) or maintained it within normal range
- 73% of participants reduced their glucose levels by an average of 33.3 points or maintained their levels within normal range
- 61% of participants improved their systolic blood pressure by at least 20 mmHg
- 57% of participants reduced their low-density lipoprotein (LDL) levels by at least 20 mg/dL
- 75% of participants scored at least 75% in the self-reported behavioral changes post-test

**Sustainability Efforts**

Throughout three years of CCH funding for the program:
Providing Culturally Sensitive Program Interventions to Maximize Participant Outcomes
Introduction

Providing Culturally Sensitive Program Interventions to Maximize Participant Outcomes is meant to serve as a guide for other nonprofit organizations interested in using a similar innovative approach to improve CV health in their communities. It describes the innovation relative to CV health in particular communities and describes how program design can reflect the social context of participants. It also provides an overview of how awardees using this approach furthered their sustainability efforts, identifies common challenges associated with this approach and suggests specific, culturally sensitive implementation strategies used by Grant Awardees who took this approach. Additional resources for organizations pursuing this type of community-based health promotion are offered in the Appendix.

Cultural competency is a key requirement for reducing inequalities in healthcare access and improving the quality and effectiveness of care for ethnic minorities and other vulnerable communities in the United States. It is theorized that successful delivery of health services to different racial and ethnic populations requires an understanding of the cultural milieu of each distinct community, as well as the trust of communities and individual patients. CCH awardees who were able to successfully implement this innovation were able to effectively identify and integrate the unique cultural needs of target populations into program design and delivery. Using cultural norms and expectations to their advantage enhanced the capacity of program administrators to promote successful program outcomes.

A number of CCH awardees who successfully maximized participant outcomes through culturally sensitive program interventions focused on Native American communities. These programs used culture-specific strategies such as engaging tribal elders in the development of program goals and strategies, as well as providing culturally appropriate program initiatives that honored cultural beliefs.

• While these programs did achieve positive outcomes with regard to clinical and behavioral outcomes, it took a considerable amount of time to scale up pilot programs, as initial recruitment and enrollment from the target population was often slow and required time to build trust in the community.

• These awardees found that engaging tribal leaders in decisions on program design and delivery contributed to program success and that word-of-mouth was the most effective recruitment tool.

• Both the number and breadth of measures collected increased in the second program year, suggesting that this innovation may benefit from a commitment of at least two years of program funding.
Other CCH awardees who achieved considerable positive clinical and behavioral outcomes by focusing on culturally sensitive program design and execution concentrated on African American and Latino communities. Racial/ethnic disparities in health have been well-described, with data showing that members of these minority groups suffer disproportionately from CVD, diabetes, asthma and cancer, among other conditions. Additionally, research shows that these two groups are significantly overrepresented in studies examining access to healthcare as well as utilization of specific services in the United States.

- CCH-funded programs that made inroads in African American and Latino communities tended to emphasize the quality of the provider-patient interaction.

- These programs were characterized by patient centeredness and culturally appropriate services, addressing interpersonal interactions between healthcare providers and participants as well as how program participants might be treated by the healthcare system as a whole.

An overview of three CCH-funded programs whose participants demonstrated improvement in their CV metrics as a result of culturally appropriate program design and execution is presented in Table 7. Strategies for implementing this program approach, along with effective program practices, are detailed in the following sections.
Strategies

Although focusing on a wide range of culturally unique populations and communities, the CCH-funded programs and nonprofit organizations highlighted under this innovative approach have demonstrated a critical appreciation for the importance of cultural sensitivity. Each of these model programs has, to some extent, addressed a number of socio-cultural barriers thought to contribute to disparities in the health and healthcare of their target populations.

CCH awardees achieved cultural competence by striving for four common goals:

1. **Identify sociocultural barriers to care for a target population**
   Awarded focused on specific social and cultural factors that form the basis for individual health beliefs, behaviors, values and preferences and how those factors potentially hinder a participant’s ability or willingness to obtain quality care.

2. **Specify when participants are experiencing these barriers as they seek healthcare, e.g., health systems level, clinical encounter level, etc.**

3. **Implement culturally sensitive interventions that address specifically identified sociocultural barriers**

4. **Incorporate discrete interventions into a broader framework that can be applied to the elimination of ongoing disparities in health and healthcare**

Effective Program Practices

Best practices for community-based health promotion suggest that successful interventions consider how an individual fits into their larger social context. The underlying theory of these programs reflects a nuanced appreciation of how an individual’s cultural traditions and social environment influence his/her perceptions of and ability to navigate the healthcare system. The AZHCF particularly recognizes the effectiveness of community-based health interventions that are innovative relative to the target population. Programs pioneering this innovative approach are addressing sociocultural barriers to healthcare across three major levels:

- **organizational**
- **structural**
- **clinical**
ORGANIZATIONAL BARRIERS

Organizational barriers include the leadership that designs system processes and the workforce that carries them out, which together shape healthcare systems.

From this organizational standpoint, one factor that impinges on both access and quality of healthcare for members of minority racial/ethnic groups is the degree to which a community’s healthcare leadership and workforce reflect the racial/ethnic composition of its population.\(^76\)

To overcome organizational barriers, Grant Awardees used culturally sensitive organizational interventions, or efforts to ensure that the leadership and workforce of a healthcare delivery system are diverse and representative of their participant population.

It was also imperative that these individuals demonstrate cultural competence, knowledge of the community and compassion and empathy toward individuals within the target population.

STRUCTURAL BARRIERS

Structural barriers arise when individuals are faced with the challenge of obtaining healthcare from systems that are complex, underfunded, bureaucratic or archaic in design.\(^77, 78, 79, 80\)

Whereas many structural barriers to care may equally impact people of low socioeconomic status, regardless of race/ethnicity, several barriers are especially relevant to minority populations\(^81\):

- Lack of interpreter services or culturally/linguistically appropriate health education materials is associated with patient dissatisfaction, poor comprehension and compliance and ineffective or lower quality care.
- Minority patients have disproportionately cited both bureaucratic intake processes and long waiting times for appointments as major barriers to access to healthcare.
- Members of minority groups also face structural barriers with regard to referral to specialists and continuity of care.

To overcome structural barriers, Grant Awardees incorporated culturally sensitive structural interventions, or initiatives to ensure that the structural processes of care within a healthcare delivery system guarantee full access to quality healthcare for all of its participants.
Clinical barriers have to do with the interaction between the healthcare provider and the patient or family. They occur when sociocultural differences between patient and provider are not fully accepted, appreciated, explored or understood.

Research has shown that provider-patient communication is directly linked to patient satisfaction, adherence and subsequently, health outcomes.

To overcome clinical barriers, Grant Awardees used culturally sensitive clinical interventions, or efforts to enhance provider knowledge of the relationship between sociocultural factors and health beliefs and behaviors, and to equip providers with the tools and skills to manage these factors appropriately with quality healthcare delivery.

What follows is a description of the effective practices used by CCH-funded organizations that maximized participant outcomes through culturally sensitive program interventions and overcame organizational, structural and clinical barriers. Nonprofit organizations interested in using a similar approach to improve CV health at the community level may benefit from adopting or modifying these effective program practices. Examples of actual strategies used by Grant Awardees can be found in Table 7.
ORGANIZATIONAL INTERVENTIONS THAT ARE CULTURALLY SENSITIVE

- Use a “patient as teacher” model of care where healthcare professionals learn with, from and about the community from program participants
- Recruit community members who demonstrate cultural understanding and compassion toward individuals within the target population to serve as health workers
- Include opportunities for peer support through support group meetings and/or training program graduates to educate peers and help deliver program services
- Involve community stakeholders in decision-making processes

STRUCTURAL INTERVENTIONS THAT ARE CULTURALLY SENSITIVE

- Use culturally and linguistically appropriate health education materials that also consider the level of literacy of the program participants

ADDRESSING PARTICIPANTS’ INDIVIDUAL NEEDS AND BARRIERS

- Identify and address individual barriers to care that may impact participants’ ability to attend the program, such as a lack of transportation or childcare services

CULTURALLY APPROPRIATE INCENTIVES TO PROMOTE HEALTHY BEHAVIORS AND ENCOURAGE FOLLOW-UP

- Consider financial and nonfinancial incentives that appeal to the traditions, self-interests, values and shared purpose of program participants and service providers
ORGANIZATIONAL CAPACITY
The support and resources that affect an organization’s ability to effectively operate a culturally sensitive intervention

1 CLINICAL INTERVENTIONS THAT ARE CULTURALLY SENSITIVE
- Deliver training and education to healthcare providers that describe the relevant attitudes, values, beliefs, behaviors and barriers of certain cultural groups
- Offer training and education to ensure that providers are aware of certain cross-cutting cultural and social issues and health beliefs that are present in all cultures
- Provide training and education about the potential for provider bias and discrimination in medical decision-making

2 STRUCTURAL INTERVENTIONS THAT ARE CULTURALLY SENSITIVE
- Offer interpreter services
- Redesign administrative procedures, such as intake processes and methods of communication to streamline processes and reduce wait times
- Provide culturally and linguistically appropriate referral mechanisms and continuity of care

MEASURABLE OUTCOMES
The metrics used to verify the value and efficacy of culturally sensitive interventions

1 STRUCTURAL INTERVENTIONS THAT ARE CULTURALLY SENSITIVE
- Include quality measures that are specific to the needs and concerns of the diverse participant populations served
- Include qualitative measures, such as open-ended questions or focus groups, to learn more about the beliefs, attitudes, values and behaviors of participants and their satisfaction with the program
Common Challenges

Common challenges reported by organizations concentrating on the cultural sensitivity of program interventions included attracting and retaining qualified staff, securing the physical space for program activities and managing expectations for participant engagement.

Attracting and Retaining Qualified Staff
Finding individuals with the required medical expertise and cultural experience was challenging for some CCH awardees. They discovered that some level of site-specific cultural competence training was necessary.

Securing the Physical Space for Program Activities
Some organizations also reported difficulty consistently accessing functional and inviting space for program activities. Organizations lacking adequate space may benefit from building partnerships in the community with other organizations that have existing and established facilities. Organizations should secure a commitment from partners prior to launching the program and communicate regularly with their partners to address issues related to the facilities as they arise.

Managing Expectations for Participant Engagement
A challenge for implementing culturally sensitive programs was managing expectations for participant engagement, as recruitment and enrollment took longer than anticipated for some organizations. Organizations with successful programs noted that the use of incentives and digital communication helped to recruit participants wary of nontraditional healthcare systems. Because of the collectivistic values of some minority groups and their tendency to bring in others to help guide decisions and opinions, reaching these individuals through social networks, such as Facebook and Twitter, facilitates communication. Program staff from these organizations also emphasized the importance of understanding and addressing common barriers to participation, such as lack of transportation and childcare services and the hours of operation, and adjusting their expectations of participants’ level of engagement accordingly.
Program Sustainability

Several of the practices used by CCH awardees providing culturally sensitive programs help support the sustainability of their programs and their ability to maximize outcomes. For example, it became evident from CCH-funded programs using this approach that the quality of the provider-patient interaction is particularly important in Native American, African American and Latino communities. By focusing on patient centeredness and cultural competence, these programs helped create effective interpersonal interactions between healthcare providers and participants. In addition, the provision of culturally and linguistically appropriate referral mechanisms and continuity of care lead to initiation, building and strengthening of trust, a key component of sustainable programs. Culturally sensitive structural interventions guarantee enhanced access to quality healthcare for all patients now and in the future and should be considered when developing similar programs.

Conclusion

Anticipated demographic changes over the next decade magnify the importance of addressing racial/ethnic disparities in health and healthcare. Groups currently experiencing poorer health status are expected to grow as a proportion of the total U.S. population. Community-based and culturally sensitive health interventions are increasingly necessary to ensure that these trends are halted and reversed. The challenges faced by these types of programs are both logistical and cultural. As demonstrated by CCH awardees in the programs they have implemented, a practical framework for reducing and eliminating racial/ethnic disparities in healthcare focuses on three categories of interventions—organizational, structural and clinical culturally sensitive interventions. In order to maximize participant outcomes, organizations implementing this innovative program approach should address these three levels of cultural competence by engaging community members in decision-making and staffing of the program; using culturally and linguistically-tailored materials and methods, as well as offering interpreter services when needed; and training and educating healthcare providers on the diverse needs and beliefs of the community, while bringing awareness to the potential for bias and discrimination, among other effective program practices.
<table>
<thead>
<tr>
<th>Organization &amp; Program</th>
<th>Disease Focus</th>
<th>Target Audience</th>
<th>Program Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Black Women's Wellness, Inc. Atlanta, GA</td>
<td>Obesity</td>
<td>Underserved, low-income African American women in Atlanta, Georgia</td>
<td>To reduce the incidence of CVD and its associated risks among African American women who have borderline high level of cholesterol, have a family history of early heart disease or who are overweight/obese by increasing their access to innovative and culturally effective interventions related to nutrition, weight and stress management, thereby improving health outcomes</td>
</tr>
<tr>
<td>Sundance Research Institute, Inc. Bethesda, MD / Wind River Indian Reservation, WY</td>
<td>General Cardiovascular Disease</td>
<td>American Indian youth and adults in rural, Central Western Wyoming</td>
<td>To build on and expand a coordinated clinical-community health education program to increase CV health knowledge and reduce CVD risk factors among American Indian adults and families with children on the Wind River Indian Reservation through a two-part program consisting of Honoring the Gift of Heart Health classes offered concurrently with a 12-week Lifestyle Balance Program focusing on physical activity and healthy diet</td>
</tr>
<tr>
<td>Westminster Free Clinic Thousand Oaks, CA</td>
<td>General Cardiovascular Disease and Diabetes</td>
<td>Low-income, Latino youth and adults in Ventura County, California</td>
<td>To reach indigent, underserved Latino communities with heart healthy services that support the whole person, are culturally competent, create healthy environments in communities of color and engage youth of the low-income community in promoting heart health and serving their neighbors</td>
</tr>
</tbody>
</table>

**Program Design & Implementation**

- Recruits women who have a body mass index of 25+ and or have high cholesterol levels from low-cost women’s health clinic and no-cost primary healthcare clinic
- Offers culturally appropriate physical fitness, nutrition, healthy cooking and stress management classes to reduce risk factors contributing to CVD
- Trains program graduates to serve as peer leaders who lead/co-lead community interventions
- Tribal health educators and fitness specialists are trained to deliver CV risk reduction education to participants, based on the culturally-tailored Honoring the Gift of Heart Health curriculum designed by the Indian Health Service (IHS) and the National Institutes of Health
- Participants concurrently take part in a 12-week Lifestyle Balance Program focusing on physical activity and reinforcing healthy eating and weight management methods
- Parents and children attend program activities together to increase family awareness of CVD risk factors
- Participants who complete the Honoring the Gift of Heart Health classes participate in bi-monthly peer group meetings for reinforcement and sharing of experiences
- Low-income, bilingual teen promotores are trained to conduct outreach and offer free blood pressure and glucose screenings in low-income Latino neighborhoods
- Those at high risk are referred for regular access to a team of volunteer medical specialists
- Offers weekly one-hour bilingual health education sessions that include cooking demonstrations and Zumba classes
- A one-stop-shop model allows participants to receive medical, mental health, prevention and heart health supporting services (e.g., free produce, Zumba and yoga classes) all in one trip in the evening
- A Healthy Hearts Kids Club provides an educational and supportive environment for children while they wait for their parents
- Teen promotores engage in advocacy efforts for improved access to healthful foods at local markets and food purveyors in surrounding communities
- All materials are available in Spanish and are at the appropriate reading level
Table 7. (Cont’d)

| Organization & Program | Center for Black Women’s Wellness, Inc. | Sundance Research Institute, Inc. | Westminster Free Clinic
| Atlanta, GA | Bethesda, MD / Wind River Indian Reservation, WY | Thousand Oaks, CA |
|-----------------------|----------------------------------------|----------------------------------|------------------|
| Healthy Women 4 Healthy Families | Honoring Your Heart on the Wind River Indian Reservation | Corazones Sanos (Healthy Hearts) Program |

### Organizational Capacity

- Conducted initial focus groups to learn about the beliefs, attitudes, values and behaviors of African American women in regard to body image, weight, nutrition, cholesterol and heart disease; culturally appropriate interventions were then crafted or modified as needed
- Brought together Tribal and IHS stakeholders to refine the plan for coordinating communication related to referrals, data sharing, physical activity approvals and participant progress between the Tribal Health educators and fitness specialists and the IHS physicians who provide medical care to the targeted population
- Program is delivered by bilingual staff from the target population

### Measurable Outcomes

(Selected year-end outcomes from peak performance years)

- A slight, non-significant increase in CVD and nutrition knowledge
- A statistically significant increase in mood as evidenced by Mental Health (MH) scale
- Statistically significant increase in number of days participants reported exercising for 30 minutes or more
- Reduction in participants’ body mass index between baseline and year-end for Year 1 and Year 2 participants
- Reduction in participants’ average systolic blood pressure between baseline and year-end for Year 1 and Year 2 participants
- Increase in participants’ average number of days following healthy eating plan between baseline and year-end for Year 1 and Year 2 participants
- 94% of participants reduced their triglyceride levels by an average of 50 points or maintained their levels within normal range
- 88% of new participants reduced their low-density lipoproteins (LDL) or maintained it within normal range
- 73% of participants reduced their glucose levels by an average of 33.3 points or maintained their levels within normal range

### Sustainability Efforts

- Throughout one year of CCH funding for the program:
  - INTEGRATING THE PROGRAM: Built partnerships to implement fitness and nutrition interventions
  - Inscribed Healthy Women 4 Healthy Families as part of its ongoing wellness programs at the Center for Black Women’s Wellness
  - Received strong community buy-in for program (e.g. a Facebook page was created by program participants, thereby initiating a virtual community focusing on CVD awareness)
  - SECURING FINANCIAL SUPPORT: Applied for additional grant funding
  - Developed and circulated a video of the program to generate interest from potential supporters

- Throughout two years of CCH funding for the program:
  - INTEGRATING THE PROGRAM: Partnered with a local Indian Health Service, a public health department, a university nutrition program, a tobacco cessation program, the state’s Diabetes Prevention Program and a gym/wellness center
  - SECURING FINANCIAL SUPPORT: Received a five-year federal grant to expand the program to five tribes in Montana, in partnership with the Rocky Mountain Tribal Leaders Council (formerly known as the Montana-Wyoming Tribal Leaders Council)
  - DISSEMINATING THE PROGRAM: Presented program to various organizations
  - Developed a Guide for Replication to share with other tribes

- Throughout four years of CCH funding for the program:
  - INTEGRATING THE PROGRAM: Partnered with businesses, churches, low-income housing nonprofits, Latino markets, a food bank and schools
  - SECURING FINANCIAL SUPPORT: Conducted fundraisers
  - Secured funds from foundations, corporations and other sources
  - DISSEMINATING THE PROGRAM: Presented program at conferences
  - Teen health coaches developed and presented a how-to toolkit for other Latino teen groups to work with Latino markets
  - Developed a program toolkit
Resources

USEFUL WEBSITES

Program Design and Implementation

1. Best Practice Guidelines for Implementing and Evaluating Community Health Worker Programs in Health Care Settings
   Describes how healthcare organizations adopt the Community Health Worker (CHW) model into their system as a way to provide comprehensive care to patients and community members.

2. 5 Best Practices for Successful Project Implementation
   https://www.projecttimes.com/articles/5-best-practices-for-successful-project-implementation.html
   Provides guidance for project managers regarding project implementation and how to avoid common pitfalls such as unrealistic expectations, poor methodology, inadequate resources and poor project management.

3. Policy & Program Planning, Implementation & Evaluation
   From the Public Health Agency of Canada, this website describes the core competencies needed to effectively choose options, and to plan, implement and evaluate policies and/or programs in public health.

4. Promoting Healthy Eating and Physical Activity for a Healthier Nation
   Publication by the Centers for Disease Control and Prevention (CDC) that provides a framework for a comprehensive program to address the problems of poor nutrition and physical inactivity on a state or community level.
Program Evaluation

1. Evaluation in Health Promotion: Principles and Perspectives
   Publication by the World Health Organization (WHO) that presents evaluation approaches to diverse health promotion programs.

2. Expanding the Evidence for Health Promotion: Developing Best Practices for WISEWOMAN
   https://www.liebertpub.com/doi/abs/10.1089/1540999041281098
   Describes the Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN), a demonstration program funded by the CDC, that provides chronic disease risk factor screening and lifestyle interventions for low-income, 40–64-year-old women.

3. Framework for Program Evaluation in Public Health
   https://www.cdc.gov/mmwr/PDF/rr/rr4811.pdf
   Publication of the CDC that provides an evaluation framework characterized by its systematic approach to improve and account for public health actions by involving procedures that are useful, feasible, ethical and accurate.

Program Sustainability

1. A Sustainability Guide for Healthy Communities
   Publication of the CDC's Healthy Communities Program that provides a synthesis of science- and practice-based evidence designed to help coalitions, public health professionals and other community stakeholders develop, implement and evaluate a successful sustainability plan.

2. Program Sustainability – HUD
   Publication by the United States Department of Housing and Urban Development that offers a broad perspective on the core activities required to sustain program activities and ensure long-term impact.
INNOVATIVE APPROACH #1:
Leveraging Access for Uninsured/Underserved Participants to Improve CV Knowledge and Health

1. Agency for Healthcare Research and Quality: State and Local Policymakers
   http://www.ahrq.gov/policymakers/index.html
   Federal scientific agency focused on quality of care research. Coordinates all federal quality improvement efforts and health services research.

2. Assessing the New Federalism (Urban Institute)
   http://www.urban.org/research/publication/assessing-new-federalism-eight-years-later
   Multi-year Urban Institute research project that analyzes the devolution of responsibility for social programs from the federal government to the states.

3. Bureau of Primary Health Care Models That Work Campaign
   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1308471/
   Public/private partnership of national associations, foundations, nonprofits, federal agencies and businesses. Promotes access to primary and preventive healthcare for underserved populations.

4. Center for Collaborative Planning
   http://www.connectccp.org/
   Promotes health and wellness in California by engaging local communities to identify their own issues, assemble resources and find solutions.

5. CDC: Division for Heart Disease and Stroke Prevention
   http://www.cdc.gov/dhdp/action_plan/index.htm
   A Public Health Action Plan to Prevent Heart Disease and Stroke, a document designed to chart a plan to help in promoting achievement of national goals for preventing heart disease and stroke over the next two decades-through 2020 and beyond.

6. Communities Joined in Action
   www.cjaonline.net
   Private, nonprofit membership organization that provides access to technical resources, peer-mentors and best practices to help communities gain commitment of political leaders and evaluate healthcare delivery options.

7. Community Tool Box
   http://ctb.ku.edu/
   Provides practical information to support community health and development. Tool Box offers “topic sections” with guidance on how to promote community health and development.
8. **FACCT (Foundation for Accountability)**
   
   [http://www.facct.org/facct/site/facct/facct/home](http://www.facct.org/facct/site/facct/facct/home)
   
   National organization that worked to improve healthcare by advocating for an accountable and accessible system in which consumers are partners in their own care.

9. **Georgia Health Policy Center**
   
   [http://www.gsu.edu/ghpc](http://www.gsu.edu/ghpc)
   
   Provides evidence-based research, program development and policy guidance to improve health status at the community level.

10. **Health Affairs**
   
   
   Monthly peer-reviewed journal that explores current health policy issues.

11. **National Governors Association Center for Best Practices**
    
    [https://www.nga.org/bestpractices/divisions/](https://www.nga.org/bestpractices/divisions/)
    
    Helps governors and key policy staff develop and implement innovative solutions to challenges facing states. Among its five divisions is Health, covering a broad range of health financing, service delivery and policy issues.

12. **Project Access NOW**
    
    [http://www.projectaccessnow.org](http://www.projectaccessnow.org)
    
    Portland, Oregon-based nonprofit that assists communities in establishing and sustaining coordinated systems of charity care based on the Project Access model.

13. **Public Health Institute**
    
    [http://www.phi.org](http://www.phi.org)
    
    The Public Health Institute is dedicated to improving health and wellness by discovering new research, strengthening key partnerships and programs and advancing sound health policies.

14. **The Commonwealth Fund**
    
    [http://www.commonwealthfund.org](http://www.commonwealthfund.org)
    
    The Commonwealth Fund is a private foundation that aims to promote a high performing healthcare system that achieves better access, improved quality and greater efficiency, particularly for society’s most vulnerable, including low-income people, the uninsured and minority Americans.
INNOVATIVE APPROACH #2:
Bringing Programs to Participants

1. **Center for Collaborative Planning**
   Promotes health and wellness in California by engaging local communities to identify their own issues, assemble resources and find solutions.

2. **Institute for Healthcare Improvement**
   [http://www.ihi.org/Pages/default.aspx](http://www.ihi.org/Pages/default.aspx)
   The Institute for Healthcare Improvement’s mission is to improve health and healthcare worldwide. The organization focuses on improving the capacity and reach of healthcare systems and offers many resources for the design and implementation of mobile interventions.

3. **Mobile Health 2012**
   Report by the Pew Research Center regarding the opportunities for mobile health and the use of smart phones.

4. **Mobile Healthcare Association (MHCA)**
   [http://www.mobilehca.org](http://www.mobilehca.org)
   Mobile Healthcare Association produces strategic initiatives that complement advancing access to healthcare on a continuing basis and in times of national emergency disaster. Mobile Healthcare Association’s mission is to promote and serve the Mobile Healthcare sector through advocacy, education and research in order to increase access to care for all.

5. **Mobile Health Consumer**
   [https://www.mobilehealthconsumer.com](https://www.mobilehealthconsumer.com)
   Organization dedicated to simplifying the healthcare system through mobile health technology so that all individuals can focus on their personal health and wellbeing.

6. **Mobile Health Map**
   [http://www.mobilehealthmap.org](http://www.mobilehealthmap.org)
   Mobile Health Map is a powerful tool for nationwide collaboration. Individual programs are able to analyze the impact of their own operations, establish benchmarks and learn from colleagues’ experiences. The project enables key stakeholders across academia, government and the mobile health clinic provider network to share findings and coordinate meetings. By promoting collaboration between stakeholders, the project seeks to lay down the groundwork for future advocacy.
7. **Mobile Health News**
   [http://mobihealthnews.com](http://mobihealthnews.com)
   News outlet focusing on the utility and technological developments of mobile health delivery systems. Target audiences include providers, payers, pharma, consumers and investors.

8. **Public Health Institute**
   [http://www.phi.org](http://www.phi.org)
   The Public Health Institute is dedicated to improving health and wellness by discovering new research, strengthening key partnerships and programs and advancing sound health policies.

9. **The Commonwealth Fund**
   [http://www.commonwealthfund.org](http://www.commonwealthfund.org)
   The Commonwealth Fund is a private foundation that aims to promote a high performing healthcare system that achieves better access, improved quality and greater efficiency, particularly for society's most vulnerable, including low-income people, the uninsured and minority Americans.
INNOVATIVE APPROACH #3: Educating Children to Serve as Heart Health Ambassadors

1. Center for School, Health and Education
   http://www.schoolbasedhealthcare.org
   Advances school-based healthcare as a comprehensive strategy for preventing school dropout and improving graduation rates for K-12 students. Partners with schools, school-based health centers, community organizations and other stakeholders to strengthen the integration of public health in all strategies, policies and practices.

2. Education Development Center
   http://www.edc.org
   Innovator in applying research to foster healthy behaviors and environments and enhance health services.

3. Global School-based Student Health Survey (GSHS)
   https://www.cdc.gov/gshs/
   The Global School-based Student Health Survey is a collaborative surveillance project designed to help countries measure and assess the behavioral risk factors and protective factors in 10 key areas among young people aged 13 to 17 years.

4. HealthCatalyst
   https://www.healthcatalyst.com
   Resource to improve population health outcomes through innovative data warehousing, analytics, and improvement services.

5. Health Evidence Network (HEN)
   Recognizing that public health, healthcare and health systems policy-makers need access to timely, independent and reliable health information for decision-making, the World Health Organization/Europe started HEN in 2003. It acts as a platform, providing evidence in multiple formats to help decision-making.

6. Improving Child Welfare Outcomes through Systems of Care: Building the Infrastructure
   Report developed for communities by the National Technical Assistance and Evaluation Center for Systems of Care with support from the Children’s Bureau, Administration on Children, Youth and Families, Administration for Children and Families in the U.S. Department of Health and Human Services.
7. **International Union for Health Promotion and Education (IUHPE)**
   A unique worldwide, independent and professional association of individuals and organizations committed to improving the health and wellbeing of people through education, community action and the development of healthy public policy.

8. **National Technical Assistance and Evaluation Center for Systems of Care**

9. **Schools and Health**
   www.schoolsandhealth.org
   Promotes improved learning through better health, nutrition and education for school-age children.

10. **World Health Organization: What is a Health Promoting School?**
    http://www.who.int/school_youth_health/gshi/hps/en/
    International nongovernmental organization that works with private sector organizations and government agencies to ensure the highest attainable level of health for all people.
INNOVATIVE APPROACH #4: Improving CV Health Through Food-Based Programs

1. American Heart Association Guide for Improving Cardiovascular Health at the Community Level
   http://circ.ahajournals.org/content/107/4/645
   American Heart Association’s guide to promoting CV health. Provides persons and organizations interested in improving the CV health of their communities with a comprehensive list of goals, strategies and recommendations that might be implemented on a community-wide basis.

2. American Heart Association Guide for Improving Cardiovascular Health at the Community Level, 2013 Update
   http://circ.ahajournals.org/content/127/16/1730.full
   Update to the American Heart Association’s guide to promoting CV health.

3. CDC Promoting Health Eating and Physical Activity for a Healthier Nation
   http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6005a1.htm
   Publication published by the Centers for Disease Control and Prevention that provides a framework for a comprehensive program to address the problems of poor nutrition and physical inactivity on a state or community level.

4. Food and Nutrition Information Center
   https://www.nal.usda.gov/fnic
   Part of the United States Department of Agriculture National Agricultural Library, this website provides resources related to food and nutrition.

5. Educational and Community Based Programs
   HealthyPeople 2020’s goal to increase the quality, availability and effectiveness of educational and community-based programs designed to prevent disease and injury, improve health and enhance quality of life. This website addresses emerging issues in educational and community-based programs and provides guidance for organizations seeking to establish similar initiatives.

6. Improving Diet and Nutrition: Food-Based Approaches
   http://www.fao.org/3/a-i3030e.pdf
   Published by The Food and Agriculture Organization of the United Nations to better document the contribution that food and agriculture can make to improving nutrition.
7. Partners for Heart Health  
http://sportsnutrition.msu.edu/SPartners/index.html  
A school-based program for enhancing physical activity and nutrition to promote CV health in fifth grade students.

8. Public Health Options for Improving Cardiovascular Health Among Older Americans  
Describes several major issues related to America’s aging population, including the impact of comorbidities, the role of cognitive health, prevention and intervention approaches, and opportunities for collaboration to strengthen the public health system.

9. School-Based Physical Health Programs  
This review of research and evaluation studies identifies effective school-based programs by student grade level found to improve student physical health outcomes, and where possible, academic and school outcomes.

10. World Health Organization Community Nutrition Program  
https://extranet.who.int/nutrition/gina/en/node/23120  
Describes the World Health Organization’s Community Nutrition Program that operated from 1995-2001. Program activities were provided at community nutrition centers (CNC) in target areas in poor urban and peri-urban areas.
INNOVATIVE APPROACH #5:
Using Health Coaches/\textit{Promotores} to Improve CV Health

1. Duke University Center for Integrative Medicine
   \url{https://www.dukeintegrativemedicine.org/integrative-health-coach-training/}

2. Best WordPress Health Coach Website 2019
   \url{http://wellpreneurline.com/best-wordpress-health-coach-websites/}
   WordPress is the largest self-hosted blogging tool in the world. This website provides examples of respected and successful health coach websites that exemplify WordPress themes.

3. Healthcare Intelligence Network Three Ways to Evaluate Health Coaching Performance
   Three health-coaching experts share their organization’s methods for evaluating a health coach’s performance to ensure client satisfaction.

4. Health Coaching Center for Excellence in Primary Care
   \url{http://cepc.ucsf.edu/health-coaching}
   The Center for Excellence in Primary Care is housed in the University of San Francisco’s Department of Family and Community Medicine. This website provides tools and resources to learn about and implement health coaching initiatives.

5. Health Coaching Performance Assessment
   \url{http://www.healthsciences.org/pdfs/HCPA_FQA.pdf}
   Published by the Health Sciences Institute, this publication offers a new tool for benchmarking and improving the effectiveness of health coaching models.

6. Health Sciences Institute
   \url{http://infocus.healthsciences.org/index.html}
   The Health Sciences Institute provides an in-depth look at issues, topics and solutions for the prevention, care and management of chronic conditions through their \textit{InFocus} publication.

7. Home Health Quality Improvement
   \url{http://www.homehealthquality.org/Webinars/Coaching.aspx}
   Since 2007, the Centers for Medicare & Medicaid Services’ Home Health Quality Improvement (HHQI) National Campaign has been providing free, evidence-based educational resources, individualized data reports, networking opportunities and assistance for home health and cross-setting providers to reduce avoidable hospitalizations and improve care quality.
8. **National Board for Credentialing Health & Wellness Coaches (NBHWC)**
   [http://www.nbhwc.org](http://www.nbhwc.org)
   NBHWC is a consensus-building collaboration of leaders who have pioneered science-based training, education and research of health and wellness coaches.

9. **National Society of Health Coaches**
   [https://www.nshcoa.com](https://www.nshcoa.com)
   The National Society of Health Coaches is dedicated to advancing the knowledge and use of Evidence-based Health Coaching (EBHC)® utilizing motivational interviewing (MI) to actively and safely engage patients/clients in health behavior change to better self-manage wellness and chronic health conditions resulting in optimal health outcomes, reduced health risk and lowered overall health costs.
INNOVATIVE APPROACH #6:
Providing Culturally Sensitive Program Interventions to Maximize Participant Outcomes

1. Barriers to Health Care in Street Level Health Project Communities
   http://streetlevelhealth.org
   Street Level Health Project is an Oakland-based grassroots organization dedicated to improving the health and well-being of underserved urban immigrant communities in the Bay Area. This webpage identifies various types of barriers faced by this population.

2. Cultural Competence in Health Care: Is it Important for People with Chronic Conditions?
   https://hpi.georgetown.edu/agingsoociety/pubhtml/cultural/cultural.html
   Health Policy Institute issue brief that addresses opportunities and challenges for healthcare providers, healthcare systems and policy makers to create and deliver culturally competent services in an increasingly diverse society.

3. Culturally Competent Care: Some Examples of What Works
   A study and report by the Commission on the Public’s Health System, Inc., in partnership with the Brooklyn Perinatal Network and The Bronx Health Link, that focuses on the health and access to care of urban youth.

4. Cultural Respect
   Collection of research and resources sponsored by the National Institutes of Health (NIH) that addresses the importance of cultural respect in healthcare and promotes NIH efforts to promote cultural respect.

5. Institute for Diversity and Health Equity
   http://www.diversityconnection.org
   The Institute for Diversity and Health Equity, a 501(c)(3) nonprofit organization, works closely with health services organizations to advance health equity for all and to expand leadership opportunities for ethnic minorities in health services management.

6. Interventions to Reduce Racial and Ethnic Disparities in Health Care
   This website, presented by the NIH, presents a conceptual model for interventions that aims to reduce racial and ethnic disparities in healthcare.
7. National Center for Cultural Competence (NCCC)  
http://nccc.georgetown.edu  
The mission of the NCCC is to increase the capacity of healthcare and mental healthcare programs to design, implement and evaluate culturally and linguistically competent service delivery systems to address growing diversity, persistent disparities and to promote health and mental health equity.

8. Practice Transformation for Physicians and Health Care Teams  
The National Diabetes Education Program’s (NDEP) Practice Transformation site is designed to help physicians, healthcare professionals and healthcare administrators across the country adapt to the changing system of healthcare delivery around diabetes.

9. Six Steps Toward Cultural Competence: How to Meet the Health Care Needs of Immigrants and Refugees  
https://docs.ucare.org/filer_public/dd/df89a4c-c7b4-416e-823b-0f6b442915fd/6stepsculturalcompetence.pdf  
Provides recommendations by the Minnesota Public Health Association’s Immigrant Health Task Force on how to better understand and improve the relationship between culture and healthcare.

10. The Role and Relationship of Cultural Competence and Patient-Centeredness in Health Care Quality  
Research presented by The Commonwealth Fund that explores the historical evolution of cultural competence and patient-centeredness at both the interpersonal and healthcare system levels.

11. U.S. Department of Health and Human Services  
http://www.hhs.gov  
Source of outreach and activities resources for healthcare professionals interested in cultural competency, health literacy and multicultural research.
For More Information About:

1. Grant Awardee programs using these innovative approaches and their efforts to overcome challenges:

    Listen to our audio files on YouTube:

    • Panel Session 1: Bringing Programs to Participants
    • Panel Session 2: Providing Culturally Sensitive Program Interventions to Maximize Participant Outcomes
    • Panel Session 3: Using Health Coaches/Promotores to Improve Cardiovascular Health
    • Panel Session 4: Leveraging Access to Care for Uninsured/Underserved Participants to Improve Cardiovascular Knowledge and Health / Using Food-Based Program to Improve Cardiovascular Health / Educating Children to Serve as Heart Health Ambassadors

2. Disseminating your lessons learned through publications, presentations and program toolkits and communicating about your program and dissemination efforts:

    Download the AstraZeneca HealthCare Foundation's Dissemination and Communications Guide.

3. The Connections for Cardiovascular Health℠ program or one of the programs mentioned:


    Email ConnectionsforCardiovascularHealth@astrazeneca.com.
References


6 Ibid


Appendix


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Appendix


Appendix


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Appendix


