

**A COMMUNITY-BASED ECOLOGICAL APPROACH FOR REDUCING RACIAL AND  
ETHNIC DISPARITIES IN DIABETES:  
THE BRONX HEALTH REACH NUTRITION EVALUATION PROJECT**

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This report presents the qualitative findings of a collaborative project by the federal Centers for Disease Control and Prevention (CDC) and the Institute for Urban Family Health's Bronx Health REACH 2010 Program to examine the program's ecological approach to improving nutrition as a way to reduce disparities in diabetes among African Americans/Blacks and Hispanics/Latinos in the South Bronx.

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## **EXECUTIVE SUMMARY**

### **Background**

African Americans/Blacks and Hispanics/Latinos account for the majority of the population in South Bronx, New York, yet are more likely to receive a diagnosis and die of diabetes than non-Hispanic Whites. African Americans/Blacks and Hispanics/Latinos are also disproportionately affected by various risk factors associated with diabetes, such as overweight or obesity, hypertension, physical inactivity, and high cholesterol. There is also increasing evidence that individual risk-reduction interventions are having a limited effect on reducing these disparities. Therefore, greater attention is required to examine and address environmental conditions that are negatively impacting the health of affected populations. More attention is being paid to developing and implementing interventions that address various health determinants at systems/institutional and broader community levels. However, there remains a dearth of information on intervention studies examining ecologically driven, community-based efforts that target improvement in nutrition to reduce disparities in diabetes among racial and ethnic populations.

### **Bronx Health REACH Program**

In response to the increasing health disparities experienced by African Americans/Blacks and Hispanics/Latinos in the United States, the Centers for Disease Control and Prevention (CDC) launched the Racial and Ethnic Approaches to Community Health (REACH 2010) Program, in 1999. This 7-year demonstration project supported 40 communities across the nation to address racial and ethnic health disparities. One of the 40 funded communities was South Bronx, New York. The Institute for Urban Family Health, along with the Center for Health and Public Services Research of New York University and three community-based organizations,

created the Bronx Health REACH program. The program works specifically to eliminate disparities in diabetes among African Americans/Blacks and Hispanics/Latinos living within four zip codes in the South Bronx. The Bronx Health REACH program oversees several community initiatives, including the Nutrition and Fitness Work Group. The Nutrition and Fitness Work Group works to raise awareness and provide necessary information and tools to promote lifestyle changes and improved behavior, which includes addressing environmental barriers that prevented people from maintaining healthy behaviors. Activities in this initiative include nutrition programs in elementary schools and after-school programs, outreach initiatives in small food stores and restaurants, a culinary committee in local churches, and a faith-based nutrition and fitness program.

### **Project Purpose and Aim**

Previous research demonstrates that interventions must move beyond individual lifestyle changes, and instead examine sociocultural, economic, political, and broad environmental conditions that impact health in order to effectively eliminate racial and ethnic health disparities. Although the public health community is beginning to recognize the need to develop and implement interventions that address these health determinants, limited information is available on multilevel strategies that can be used to address nutrition as a way to reduce disparities in diabetes among African Americans/Blacks and Hispanics/Latinos. The primary purpose of this evaluation project was to examine the development and implementation of multilevel nutrition activities that the Bronx Health REACH program initiated to improve nutrition as a way to reduce disparities in diabetes among African Americans/Blacks and Hispanics/Latinos in South Bronx, New York.

## **Methods**

Qualitative methods were selected to gain a greater understanding of the factors contributing to disparities in diabetes in the South Bronx, as well as to capture detailed information on the processes and approaches by which the Bronx Health REACH program initiated their nutrition interventions. Local human subjects review and approval was obtained to conduct this project through the Institute for Urban Family Health. Three types of data were collected for this evaluation—in-depth interviews, focus groups, and program records. Nine in-depth interviews and four focus groups, each consisting of six to eight participants, were conducted with key partners and staff from the Bronx Health REACH program. Audio recordings of the focus groups and interviews were transcribed, and select program records were reviewed to provide information regarding the history and characteristics of the activities being examined. A team of three CDC and two Bronx Health REACH program staff analyzed the data. The data were encoded using the qualitative software program HyperResearch. Triangulation of the focus group and interview transcripts and program records was conducted to determine reliability and validity of the data.

## **Key Findings**

Qualitative data from this evaluation revealed the following:

- Multiple individual, interpersonal, community, and broader environmental determinants are influencing the perpetuation of disparities in diabetes among African Americans/Blacks and Hispanics/Latinos in the South Bronx. The Bronx Health REACH program addressed some of the health determinants by initiating multilevel (i.e., individual, interpersonal, organizational, and community) nutrition interventions. Although this evaluation did not

focus on program impact, multiple outcomes occurred at the individual, organizational, and community level. However, focus group and interview participants felt that much more work had to be done before real reductions in health disparities could be seen.

- Many factors influenced the development and implementation of the Bronx Health REACH nutrition interventions. These factors include the following: nutrition interventions that reflect the cultural and spiritual beliefs and traditions of the communities they are serving, program staff and partner leadership, the program's institutional history within the community, unified vision and goals between the program and its partners, the program's support and capacity-building efforts, the program's partnership building, and the ability of the program to adapt and address partner and community needs and realities. Major barriers in the development and implementation of the program's nutrition interventions included limited time and resources, conflicting interests, and resistance to changing attitudes and behaviors.
- Using community-based participatory approaches enabled the program to build support and capacity among its partners and other community members. It also ensured alignment of community needs and program activities. These approaches allowed community members an opportunity to voice their concerns and actively engage in the development and implementation of the nutrition interventions. The program also provided opportunities for community members to engage in civic and democratic practices, which may have increased a sense of empowerment and self-efficacy.

## **Recommendations**

- Community-based organizations and public health professionals can do the following:

- Use an ecological approach to target various levels and settings of influence to better address the multiple determinants that perpetuate racial and ethnic health disparities.
- Adopt a community-based participatory approach (CBPA) in program and evaluation efforts to better understand the sociocultural, geographical, and historical contexts impacting disparities and to promote community participation and civic engagement among community members.
- Consider reaching out to a range of “grassroots” (e.g., community organizations) and “grasstops” (e.g., government, business, other institutional leaders) groups as possible partners to help mitigate institutional barriers, foster program sustainability, and create greater public health impact.
- Conduct assessments of partner assets, resources, and weaknesses to best use the partnerships and leverage additional resources to develop, implement, evaluate, and sustain interventions.
- Use “business” or “economic” models to help find innovative ways to encourage businesses and policy makers to support on health disparities initiatives.
- Encourage partners to seek and obtain multiple sources of funding, as well as offer leadership and skills-based trainings to increase community capacity and sustainability.
- Tailor community-based interventions to the cultural and spiritual beliefs, values, and traditions of the affected communities.



- Federal and state public health agencies and organizations can do the following:
  - Support communities and transform power imbalances by creating partnerships that promote participatory public health efforts that specifically address macro-level determinants that impact racial and ethnic health disparities.
  - Conduct further qualitative and quantitative research to examine the sociocultural and historical contexts that perpetuate disparities.
  - Conduct mixed-method evaluations and disseminate findings on the effectiveness of other community-based participatory interventions that address racial and ethnic disparities.

## INTRODUCTION

### Background

African Americans/Blacks and Hispanics/Latinos make up the two largest racial and ethnic groups in the United States, reaching more than 80 million people, or almost two-thirds of the U.S. population (U.S. Census Bureau, 2006). Hispanics/Latinos alone are reported to be the fastest growing ethnic group in the country, and they are expected to make up almost one-fourth of the total U.S. population by 2050 (U.S. Census Bureau, 2006). Despite their numbers, racial and ethnic disparities in disease incidence, premature death, quality of health care, and medical treatment persist for these populations, and in some cases, they are getting worse. For example, African Americans/Blacks and Hispanics/Latinos are more likely to be poor, lack insurance and a usual place of health care, delay seeking care because of cost, and have unmet medical needs (NCHS, 2007). African American/Black and Hispanic/Latino families and individuals also are more likely to live below the poverty level compared with Whites (U.S. Census Bureau, 2006).

In New York City, Hispanics/Latinos and African Americans/Blacks account for the majority of the population in the Bronx—51% and 43%, respectively (U.S. Census Bureau, 2008). Non-Hispanic Whites make up only 13% of the population. The New York City Department of Health and Mental Hygiene reported that in South Bronx, one of the poorest neighborhoods in New York City, more than one in three residents live in poverty (Karpati, Kerker, Mostashari, Singh, Hajat, Thorpe, et al., 2004). African Americans/Blacks and Hispanics/Latinos in the South Bronx were more likely to have less than a high school education compared with Whites. In the South Bronx, 18%–21% of adults are uninsured, 16%–20% sought routine health care in the emergency department (ED), and 26%–36% did not have a personal doctor (Olsen, Van Wye, Kerker, Thorpe, Frieden, 2006a; 2006b). Primary care doctors are less common in the

Bronx than in Manhattan (Jasek, Van Wye, Kerker, Thorpe, & Frieden, 2007). During 2001–2005, the Bronx experienced a shortage of physicians, with an 8% decrease in physician supply during this time (Center for Health Workforce Studies, 2006).

African Americans/Blacks and Hispanics/Latinos disproportionately experience diabetes-related mortality and morbidity compared with non-Hispanic Whites (NCHS, 2007). Diabetes-related prevalence and hospitalization rates were significantly higher in South Bronx neighborhoods compared with Manhattan neighborhoods (Berger & Matte, 2006). African Americans/Blacks and Hispanics/Latinos also are also disproportionately affected by various risk factors associated with diabetes. According to recent findings from the REACH Risk Factor Survey, African American/Black and Hispanic/Latino adults in the South Bronx were more likely to report being overweight or obese, having hypertensive, being physically inactive, and having high cholesterol compared with the state averages (CDC, unpublished data).

In addition, as of 2005, African Americans/Blacks and Hispanics/Latinos in the South Bronx were less likely to report having a hemoglobin A1C test or a foot exam in the past year compared with the state average (U.S. DHHS, 2006a). Hispanics/Latinos in the South Bronx were less likely to report taking medication for high blood pressure or having their cholesterol checked compared with African Americans/Blacks and Whites (U.S. DHHS, 2006a). However, both African Americans/Blacks and Hispanics/Latinos were more likely to report having an eye exam in the past year compared with the state average.

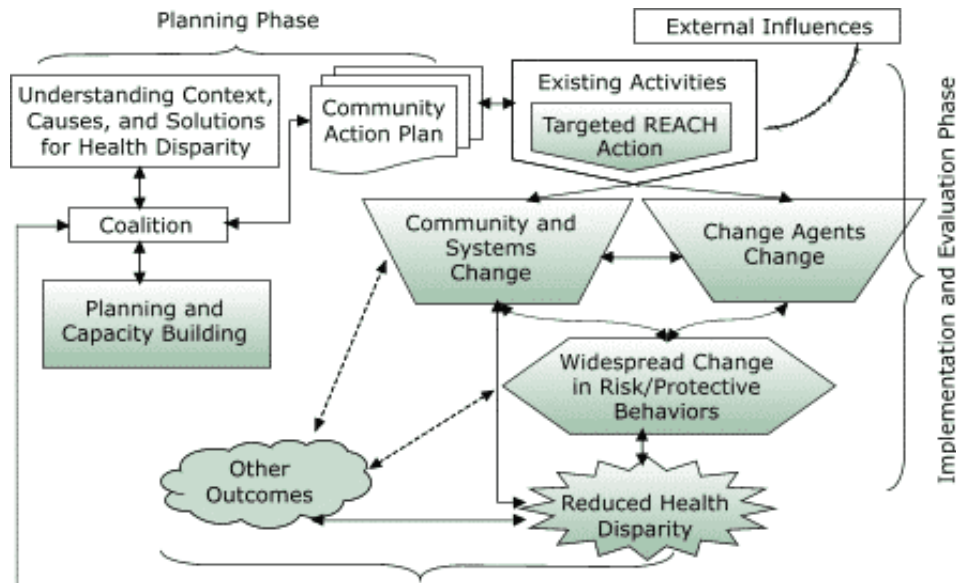
### **Racial and Ethnic Approaches to Community Health (REACH 2010)**

In 1999, the Centers for Disease Control and Prevention (CDC) launched the Racial and Ethnic Approaches to Community Health (REACH 2010) program, a federal initiative to help affected communities eliminate racial and ethnic health disparities. REACH 2010 was a 7-year

demonstration program project (fiscal year 1999–2007) that supported community coalitions, comprised of a community-based organization and at least three other organizations. These organizations included a local or state health department, a university, or a research organization. The coalitions were charged with designing, implementing, and evaluating community-driven strategies to eliminate racial and ethnic health disparities (U.S. DHHS, 2006b). Forty communities across the nation were funded through the REACH 2010 program (U.S. DHHS, 2006b).

REACH 2010 focused on the six following health priority areas: cardiovascular disease, immunizations, breast and cervical cancer screening and management, diabetes, HIV/AIDS, and infant mortality. Specific projects target one or more racial or ethnic group, including African Americans/Blacks, American Indians or Alaska Natives, Asian Americans or Pacific Islanders, and Hispanic Americans/Latinos (U.S. DHHS, 2006b). To assess progress in reducing racial and ethnic disparities within the REACH 2010 program, CDC developed a logic model (Figure 1), which depicts the program's theory of change and includes conditions being addressed, activities used to address these conditions, and the expected outcomes of the activities (Tucker, Liao, Giles, & Liburd, 2006). The model is guided by an ecological approach and consists of the following five stages: capacity building, targeted action, change among change agents and systems change, risk and protective behavior change, and elimination of health disparities (Giles, Tucker, Brown, Crocker, Jack, Latimer, et al., 2004). These stages correlate with the various levels by which racial and ethnic disparities can be reduced.

**Figure 1. Logic model for REACH 2010**



**Bronx Health REACH program**

The Bronx Health REACH program was created in 1999 by a coalition coordinated by the Institute for Urban Family Health. It included the Center for Health and Public Services Research of New York University and three community-based organizations—Mount Hope Housing Company, the Women’s Housing and Economic Development Corporation (WHEDCO), and St. Edmund Episcopal Church. The Bronx Health REACH program works specifically to eliminate disparities in diabetes among African Americans/Blacks and Hispanics/Latinos who live within four zip codes in the South Bronx and make up 95% of the area’s population.

The coalition strives to achieve the following goals: 1) examine health disparity in the service area and understand its underlying causes; 2) raise the community’s awareness of how health disparity impacts their health; 3) develop, implement, and sustain model programs that provide community residents with the information they need to reduce to their risk of diabetes, effectively manage it if it does occur, navigate the health care system, and advocate for quality

health care; and 4) promote public policies that addresses all factors needed for the health and well-being of the community, including equal access to high-quality health care for all and an environment that supports fitness and good nutrition. The coalition includes more than 40 community and faith-based organizations.

The Bronx Health REACH program oversees several community initiatives, including a faith-based outreach initiative, a community health advocacy program, a nutrition and fitness initiative, a training curriculum for health care providers, a legal and regulatory committee, and a public health education campaign. The Nutrition and Fitness Work Group focuses on educating community residents, health professionals, and local leaders on the role of nutrition and fitness in preventing the onset of diabetes and the importance of effective management of the disease. The goal is to raise awareness and provide the necessary information and tools to help people make lifestyle changes and improve their behavior, which includes addressing environmental barriers that prevented people from maintaining healthy behaviors. Activities in this initiative include nutrition programs in elementary schools and after-school programs, grocer and restaurant outreach initiatives, a church-based culinary initiative, and a faith-based nutrition and fitness program.

### **Project Purpose and Aim**

Disparities in diabetes among African Americans/Blacks and Hispanics/Latinos continue to persist, and there is increasing evidence that individual risk-reduction interventions are having a limited effect on reducing these disparities. Recent research has shown that greater attention is needed in examining and addressing environmental conditions that are negatively impacting the health of affected populations. Many current urban environments are poorly designed to promote

health behaviors (Perdue, Stone, and Gostin, 2003). For example, many urban neighborhoods lack safe open spaces, such as parks and playgrounds, to exercise, and easily accessible nutritious food. Instead, they are inundated by stores that sell alcohol and targeted by advertisers that promote the use of alcohol and tobacco products (Perdue, Stone, and Gostin, 2003). The promotion of unhealthy eating habits in these primarily minority neighborhoods is influenced by the proliferation of fast-food restaurants, a deficiency of supermarkets providing fresh produce, and the higher cost and poorer quality of healthy foods (i.e., low-fat dairy products, fruits, and vegetables). All of these factors may account for diabetes-related disparities among racial and ethnic groups (Glanz, Sallis, Saelens, and Frank, 2005; Glanz, and Yaroch, 2004; Moore, and Diez-Roux, 2006). Changes in the nutrition environment, such as the increasing popularity of eating out, and larger portion sizes, as well as social norms, policies, and advertising also seem to contribute to the diabetes epidemic (Glanz, Lankenau, Foerster, Temple, Mullis, Schmid, 1995; Glanz et al., 2005).

Although there is substantial evidence that disparities in nutrition among low-income, primarily minority communities exist, most intervention studies continue to focus on individual behavior change instead of broader sociocultural, political, or other environmental conditions that influence health behavior and outcomes. Some researchers are paying more attention to the need to develop and implement interventions that address various health determinants at the systems/institutional and broader community levels. However, multilevel intervention studies that examine ecologically driven community-based efforts to reduce disparities in diabetes among racial and ethnic populations by improving nutrition are limited.

To date, the Bronx Health REACH program has not conducted any formal evaluations or assessments of the Nutrition and Fitness Work Group activities. However, program leadership

and staff have expressed the need to conduct an evaluation of the Group's activities in order to address current gaps in diabetes disparities research, as well as to help modify and improve their work to ensure program sustainability. This study was developed specifically to address these needs and concerns.

### **Conceptual Framework**

The field of public health recognizes the need to move away from solely individual-level strategies to more population-based approaches that address environmental factors. This approach could offer a deeper and more comprehensive understanding of the multitude of factors that may affect a person's health, as well as have a greater impact on population-level improvements in health. Such environmental-level strategies have increasingly been accepted as necessary steps to address major health problems successfully, maintain individual-level behavior changes, and eliminate health disparities.

Real improvements in health require an understanding of the multilevel determinants of health behavior, as well as the use of a variety of change strategies that target individual, interpersonal, organizational, community, and public policy levels. Over the past decade, several conceptual models have been developed to illustrate this ecological perspective on health (IOM, 2003). Such models suggest the opportunity to systematically assess and intervene at each level of influence—targeting a range of settings or levels, (such as workplaces, schools, health care agencies and organizations, communities, businesses, and large industries).

More recent conceptual models have been developed to illustrate how nutrition specifically is influenced by each level of the socioecological model, including how environmental, political, and individual factors influence eating behaviors (Sallis and Owen,



2002; Glanz, et al., 2005). We used a broader socioecological model to guide the design of this study because it allowed for a more general examination of factors contributing to disparities in diabetes (see Figure 2). It also corresponded more appropriately with the approach that the Bronx Health REACH program used to target program and policy interventions at multiple levels (i.e., individual, interpersonal, institutional/organizational, community, and environmental) to address racial and ethnic disparities in diabetes.

**Figure 2. Determinants of population health**

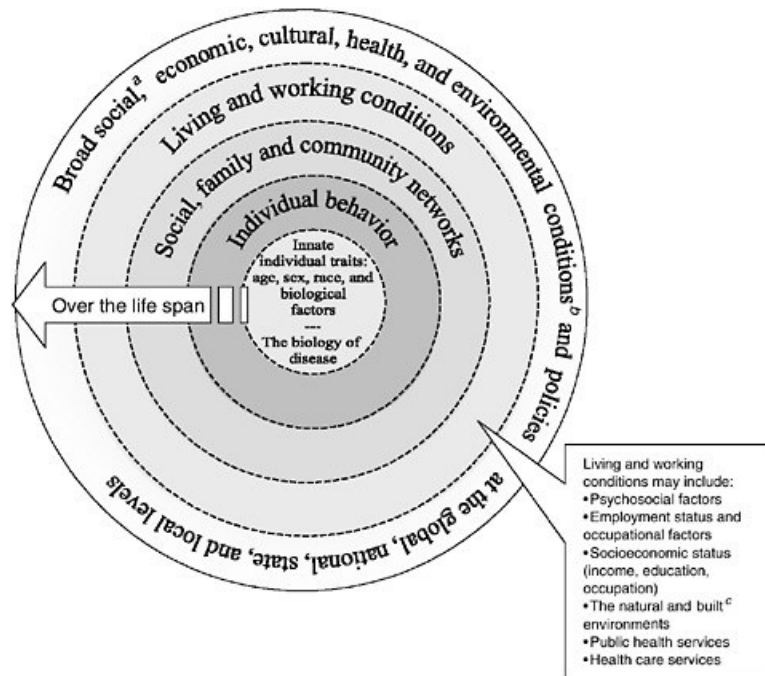


Figure derived from The Future of the Public’s Health in the 21<sup>st</sup> Century, Institute of Medicine, 2003:52.

## **METHODS**

Qualitative methods in this evaluation consisted of three kinds of data collection: in-depth interviews, focus groups, and program records. Both in-depth interviews and focus groups allow the researcher to ask open-ended questions to capture information “revealing respondents’ depth of emotion, the ways they have organized their world, their thoughts about what is happening, their experiences, and their basic perceptions” (Patton, 1990). Focus groups convene a group of people to discuss a particular topic or theme with the help of a facilitator, while in-depth interviews refer to exploration of any and all facets of a topic in detail with a specific individual (Patton, 1990; Rossi, Lipsey, Freeman, 2004). Qualitative methods allow for a wealth of detailed information to be collected, which increases the depth of understanding of a particular issue or topic. However, they also greatly limit generalizability (Patton, 1990).

Qualitative methods were selected for this project to examine the issues of interest in-depth and detail in order to gain a greater understanding of the factors that affect disparities in diabetes in the South Bronx. They also were used to capture detailed information on the processes and approaches used by the Bronx Health REACH program to initiate its nutrition interventions. The following sections present an overview of the human subjects review and approval process, participant recruitment and selection, data collection, and analysis methods used to conduct this evaluation.

### **Human Subjects Review and Approval**

Local human subjects review and approval through the Institute for Urban Family Health was required to conduct this project. The Institute’s Institutional Review Board (IRB) application form was completed and submitted in September 2006. Approval from the Institute’s IRB

committee was obtained the same month on the condition that the informed consent form for interviewees be revised to match the qualitative data collection protocol (see Appendix A).

A revised version of the application, which included the revised consent form and a Request for Amendment to Protocol and/or Informed Consent Document form, was submitted in October 2006. This form outlined details on the specific amendments made to the project. These amendments included 1) providing a \$25 stipend to faith-based and restaurant-based participants; 2) limiting interviews to one point in time instead of two; and 3) modifying interview and focus group questions to ensure clarity, simplicity, and appropriateness of language. These changes required revising sections of the original application and of the informed consent forms, as well as developing Spanish versions of the interview questions and the restaurant-based informed consent form.

### **Participant Recruitment and Selection**

Eligible participants included key partners from the Bronx Health REACH program, such as program staff and evaluators, coalition members, and other external partners (e.g., school staff, bodega, restaurant managers). Program staff helped to recruit participants involved in any of the Bronx Health REACH program's nutrition-related interventions for focus groups and in-depth interviews. A delegated program staff member was the point of contact and was responsible for making telephone calls, inviting the selected individuals to participate, and coordinating other logistical issues (e.g., scheduling interviews and focus groups, reserving rooms, providing snacks and incentives). This staff member used a standard script from the qualitative protocol to convey relevant information about the study when recruiting participants (see Appendix A).

## Data Collection

Nine in-depth interviews and four focus groups, each consisting of six to eight participants, were conducted during October–November 2006 (Table 1). Because the faith-based nutrition initiative is one of the larger components (i.e., with the greater number of participating churches) of the Bronx Health REACH program, two focus groups were held with key partners involved in these initiatives in order to adequately capture information on the multiple approaches, as well as on the various perspectives of the people involved. A review of select program records (i.e., progress reports, meeting minutes, budget records, other summary reports) was conducted.

**Table 1. In-Depth Interview and Focus Group Participants**

<b>IN-DEPTH INTERVIEW PARTICIPANTS</b>	
<b>Title/Role</b>	<b>Program/Organization Affiliation</b>
Coordinator	Fine, Fit and Fabulous Program
Coordinator	Faith-based Outreach Initiative, Bronx Health REACH
Assistant Commissioner	Bronx District Public Health Office, New York City Department of Health and Mental Hygiene
Regional Health Director	New York City Department of Education
Restaurant Owner	Estrella Bella Inc.
Coordinator	Healthy Hearts Initiative
Pastor	Walker Memorial Baptist Church
Clergy Liaison	Cosmopolitan Church of the Lord Jesus
Coordinator	Women’s Housing and Economic Development Corporation (WHEDCO)
<b>FOCUS GROUP PARTICIPANTS</b>	
Faith-Based Partners (n = 2)	Bronx Health REACH Faith-based Culinary Initiative
School-based Partners	MARC After-school Program and Healthy Hearts School-based Initiative
Project Staff and Work Group Members	Bronx Health REACH Nutrition and Fitness Work group

The focus groups and in-depth interviews were conducted at one point in time and at a location and time convenient for the participant. All focus groups were conducted in English; only 1 of the 9 in-depth interviews was conducted in Spanish. Facilitator guides with an introductory script and open-ended questions were developed in both English and Spanish and these were used to conduct the focus groups and in-depth interviews (see Appendix B). The script was used to remind the participant of the purpose of the focus group or interview, as well as the topics covered and confidentiality issues. Before the discussion began, the facilitator reviewed the informed consent form with the participant and obtained his or her signature. The qualitative protocol was used by the facilitator as a guide to 1) recruit participants, 2) prepare for and conduct focus group or interview, and 3) manage and prepare data for analyses (see Appendix A).

Because the in-depth interview and focus group participants were partners of the Bronx Health REACH program, most were not compensated for their time and participation. However, the faith-based focus group participants and the sole restaurant-based interview participant received a \$25 stipend for their participation. Audio recordings of all focus groups and eight of the in-depth interviews were transcribed by a contracted transcription service. The Spanish in-depth interview was transcribed in Spanish by the program coordinator (translation did not occur until the report writing phase). Participant responses were kept anonymous and confidential by assigning a unique code to each participant. This code was used on all interview guides and audiotapes. Transcripts also were assigned a code; names or any other personal identifying information did not appear on any of these materials. Identifying codes were used to distinguish particular responses or quotes from the transcripts. Select program records (e.g., progress reports,

meeting minutes, summaries) were reviewed to provide information regarding the history and characteristics of the particular activity.

### **Qualitative Analysis**

A case study approach was applied, and a method that involves systematically examining and refining variations in emergent and grounded concepts was used to analyze the data. A qualitative analysis of primary data was conducted using information gathered from all focus groups, in-depth interviews, and select program records from the Bronx Health REACH program. The analyses focused on describing and mapping each nutrition activity to a specific dimension (i.e., consumer, organizational, or consumer nutrition environment).

Coding was iterative, with new codes and their definitions added as new themes emerged. The coding team consisted of three CDC and two Bronx Health REACH program staff. The coding team members were given a chapter from (LeCompte & Schensul, 1999) to review in preparation for coding the data. Each team member independently read and manually coded the interview and focus group transcripts. The team held an initial meeting to discuss codes and negotiate coding differences after reviewing one focus group transcript. Team members then met weekly to add any new codes as they emerged and maintain consensus on the list of codes. The codes were then organized into a codebook along with definitions to serve as a guide for coding (see Appendix C).

The consensus codes for all focus group and interview data were entered into a HyperResearch software program. HyperResearch was used to sort the data by code and print reports, which the coding team reviewed. The team then determined if additional codes were needed to further characterize the data or if any codes needed to be merged. Triangulation of the

focus group and interview transcripts and program records was conducted to determine reliability and validity of the data. Upon triangulation of the data and review of the code reports, key themes and patterns were generated to guide the findings of the project and the development of the framework presented at the end of this report.

## KEY QUALITATIVE FINDINGS

Coalition partners and staff of the Bronx Health REACH program participated in focus groups (n = 4) and in-depth interviews (n = 9) to capture information on the multilevel nutrition interventions that the program developed and implemented during 1999–2006. Participants were asked questions on racial and ethnic health disparities affecting their community, factors contributing to these disparities, and key characteristics of the program’s nutrition interventions. A detailed discussion of these key themes follows.

### **Contributing Factors to Racial and Ethnic Health Disparities**

At the beginning of the focus group and interview discussions, participants were asked to describe the racial and ethnic health disparities in their community and the determinants most influencing these disparities. In general, participants were more likely to describe racial and ethnic disparities as they relate to perceived injustices they have experienced within the health care system.

[Racial and ethnic health disparities] means that my community is, first of all, being disrespected, being mistreated, and it means that my community is suffering inordinately because of the practices and the behaviors of the medical community...That’s what it means to me. It’s an injustice. As a matter of fact, it’s beyond injustice; it’s really inhumane because people are being treated as if they’re not worthy of compassionate consideration in the delivery of health care.(Int2)

I’d define it as practices that prevent people from certain races and ethnic groups from obtaining good quality health care simply on the fact of what they look like or where they come from, and in some cases, their economic situation, but usually not, because you could have good economic situation and still be subject to disparity because you’re just not seen as worth it to go to another level.(FG3)

Although some participants described health disparities as they relate to insurance status (private versus public insurance), others defined racial and ethnic disparities as differences in the burden of disease and health outcomes.



I think the simplest way of defining it would be the differences in health status and health outcomes based on race.(Int8)

Others described racial and ethnic health disparities as a “better life for all” and a “consciousness” of the inequalities that certain people face, such as those in the Bronx, in receiving quality care and maintaining healthy behaviors. Participants described multiple determinants at individual, institutional, community, and broader environmental levels.

Common themes associated with certain contributing factors included lack of power and control in seeking health care; lack of self-efficacy in healthy eating; economic barriers to healthy eating; racism and discrimination in the health care system; relationships between culture and food; real-life conditions of community nutrition environments; corporate power, and the social production of diabetes.

### *Individual- and Interpersonal-Level Determinants*

#### Lack of Health-Related Knowledge

Despite strides made in informing the public on health issues, participants felt that a knowledge gap persists among community residents regarding nutrition and diabetes.

I hear a lot of people in the churches talking about their regret for the way that they eat and wishing that they could change it, but just not really knowing how to do it...If you don't know a lot—I think we make assumptions of people now because there is sort of a generalized social awareness. But a lot of times, if somebody doesn't sort of say to you, 'Make it personal,' then you're not thinking this collective thinking about how we should be eating organic or whatever.(FG4)

A few participants felt that a major challenge in raising awareness of diabetes-related problems is educating parents to provide healthy foods to their children.

And one of the biggest problems is educating the parents. They don't have the knowledge or the skill sets to do a lot of things; they don't know. Parents will come in the morning with a child eating a McDonald's breakfast, and we're like, "That's a no-no."(FG3)

Almost all participants described the problem of people “not knowing what they are entitled to” in regards to health care services, insurance benefits, and treatment options, and not knowing the appropriate or relevant questions to ask. A couple of participants specifically stated how immigrants experience additional challenges in asking for information because of language barriers and fear of deportation.

Many of us who go to visit these medical facilities in our communities aren't aware of the questions we should ask before we go there. We're not aware of the proceedings we should take before we even get there and once we get there.(FG2)

I don't know if it's so much that it's not the person's option if the things are available to them as it being they don't know that they're able to ask for it. Like, for example, if someone has private insurance as opposed to Medicaid the patient may not know that they're even eligible for any other treatment than what they're being given. Or that they're even eligible to go to a private doctor's office and they don't have to sit in the clinic with a hundred other patients waiting for the same nine o'clock appointment. (FG4)

#### Lack of Power and Control in Seeking Health Care

Participants perceived that many patients often are afraid to question the health care provider or request additional information on their health status or prescriptions because of their lack of knowledge and reverence of the provider's status and authority. As a result of this power imbalance, patients often do not clearly understand the treatment regimen or its effects, and in turn, may result in lack of medication adherence.

A lot of them think like the doctors are God, and they don't think that they have a right to question.(FG1)

A lot of people just follow the doctor's directions just because he's the doctor, not understanding why those directions should be followed. They don't follow up on things. They may go and get a test, then go get a prescription for a medication and then not go back to the doctor to follow up to see if the medication is working; they stop taking the medication.(FG1)

Participants also felt a power imbalance in their relationships with their providers. Many were frustrated with providers not giving clear information or instructions, as well as not being allowed to “actively participate” in decisions regarding their health.

But most of the time you don't get any feedback at all. So you don't know whether the test was normal or abnormal. And we know there's many instances where there are abnormalities found, a patient is never contacted, and the disease or condition progresses because they never were told that anything was wrong.(FG1)

But being in the business for many, many years, what you see is that in lower-income communities, where there are more minorities, you find that the health provider thinks they know it all and often times they don't work together with the patient as much as I think in upper-income and more white populations do.(FG4)

The patient-provider relationship also was described as being an adversarial one (“us versus them”), implying that providers intentionally restrict sharing information because they assume the patient is either “not interested” or a “fool.”

[Doctors] think they are doing their job when they provide us with inadequate information and inadequate health care. And I have seen them look in amazement as you remind them that there are resources that they have not yet told us about or options that they've not discussed with us. Sometimes those options may not be discussed with us because they look at our cultural background and feel like, “Well, he or she wouldn't be interested in it.”(Int1)

So, you know, sometime you got to give us a little—we not fools, and we not dumb people. We're poor. We live in a poor neighborhood, but I know a lot of us, if you explain something to us, we understand.(FG1)

So they don't give you an opportunity to be a part of your health care. In other words, no options. They don't sit down and talk to you about, “Well, maybe the first step towards diabetes is change your eating habits, exercise.” The second step may be a pill. They just jump you straight to “Whatever” and forget about everything else because they say you're not going to do it. So, in other words, if you tell me, as the patient, that I'm not going to do it, but yet—and still, I'm saying to you, “Let me be a part,” some people just believe the doctor totally. Some, they want to be a part of their health care, and they're not given that opportunity.(FG1)

Further, because of a lack of knowledge or sense of empowerment, community members sometimes do not understand the effect that inadequate care has on their health status. They may misinterpret declining health as part of the inevitable progression of a disease instead of recognizing that their health problems have been exacerbated by poor health care.

And you can't start to advocate for yourself and demand if you don't realize that you're getting—if what you're suffering from is... directly related to the health care that you're getting. You know you're getting poor health care, but you don't realize the significance or the impact on your health outcome. And I think that's an important connection that a lot of people haven't made. Because they just think this is the normal development of this particular disease. You know, if I'm

asthmatic, I'm just going to be more and more dependent on that inhaler or medication. Well, not necessarily so if the treatment and the care you are getting is really well-managed and you have access to sort of the best practices. But you don't know that. You don't know that there are better forms of providing insulin to you than you are being restricted to get because of your health care, the health insurance that you have. You don't know that, so you're thinking, "Oh, so I'm asthmatic, and it's a normal thing that I need to go to the emergency room on a very regular basis because I'm having a horrific asthma attack." Well, no. If you go into some communities, there are people with the diagnosis of asthma that never end up in the emergency room. If you're diabetic, there are people whose blood sugar level is maintained within the normal range for the lifetime of their diabetes, but you don't know that. And you don't know that that is a direct result because of—you don't know specifically that these outcomes are the direct result of the inferior health care that you're getting...[P]eople don't know that it doesn't have to end that way with any of these chronic illnesses. You know, you have options and no matter what insurance you have, no matter what type of providers you go to, you have the option of taking control of it yourself and having your own outcome.(FG4)

Many of the participants reported the need for community residents to empower themselves by gaining knowledge and taking action, such as complaining when mistreated, switching doctors, engaging in the political process, and simply "speaking up." Participants expressed the importance of "empowering ourselves" but also in changing the providers' perceptions of the patient to increase communication. They also felt they had a right to demand equal, affordable health care and they acknowledged the importance of being "your own advocate" and training community members to do the same. One participant questioned the responsibility of the New York City health department to provide ongoing training to medical professionals on how to deliver culturally competent, high-quality care.

And I've also learned that, in a lot of areas, I don't care where you live, you have to be your own advocate. So it's about knowledge and empowering yourself through knowledge of what you're supposed to have. And you have to approach your doctors and tell them, "This is what I need."(FG1)

Playing a major role in your own health care decisions. Teaching people, when the doctor gives you a prescription, read the prescription very carefully, and then gather the information about how that medicine may affect you physically, may affect your body, and those kinds of things.(Int1)

I also have to be very responsible for my own health care outcomes because I'm no longer—sort of going in with a naïve sense that I will automatically, because you're a health care provider, will be given the best sort of treatment or the best sort of care. I know that there are counter-

arguments that everybody's getting less than optimal health care, but you know what the bottom line is? There are more people like me who are going to have poorer outcomes, and therefore I need to be really on top of whatever game is happening. That it's my health care that's on the line...And I also realize how much, as a patient, once you enter in that health care system, you enter in a state of almost powerlessness. That for me, I have to actively counter. I can actively say, "No, I really need that paper that you're looking at," or "I really need to tell you that this referral, you need to help me get this referral through." I am much more aware of that because I now understand that I need to be actively involved with my health care. Because I am my strongest advocate in terms of the outcome. (FG4)

### Lack of Self-Efficacy in Eating Healthy

The lack of self-efficacy to change and maintain healthy behaviors was reported by participants as a major contributor to disparities in diabetes. Participants juxtaposed the negative environmental conditions (e.g., fast food restaurants, use of trans fat) and the need for policy changes with the recognition that individual responsibility in eating healthy is equally important.

I know there's a move to have the menus revised, eliminate the trans fat and some of these other things, but until the message becomes the same that you have to limit, and when you think in terms of some of these lawsuits that people file against McDonald's and Burger King that say, "you made me fat," so folks don't understand, "No. There is also access, there's information, and then there is self-control." So we have to be able to package that so that it's there in the same amounts of this information to everyone all the time until we start to see the changes.(Int6)

I think whether it's the Bronx or lots of other parts of the United States, I think people often do know what is healthy eating, and they choose not to eat healthily. I think fast food, fatty food, junk food tastes really good, and that people start to eat it and have a really hard time changing their behavior. So I don't think it's just an issue of—unfortunately, I don't think it's really just an issue of access and knowledge because I think there are lots of people who have access and have knowledge and still eat really poorly.(Int8)

### Economic Barriers of Healthy Eating

Some participants reported that economic barriers often prevent people from buying healthy foods, which tend to be more expensive. Because of limited incomes, families are often unable to buy healthy foods, such as fruits and vegetables, and in turn, are forced to buy less-nutritional foods to stay within their budgets.

People's food choices are very much affected by even their own personal economics like their household economics—when they're trying to stretch their dollar, so the biggest expense—I've

found that they go shopping infrequently, and they're buying for a long period of time. So it's usually not fresh fruits or perishable produce.(FG3)

Because they're either not employed or underemployed or below the minimum wage, or they're working under the table as they say, the money isn't there to do everything that you need to do. So you're buying what you can to feed, which is not necessarily nutritional or a balanced-type meal situation that they get and whether it's the child or the adult.(Int6)

Participants explained the challenges that many families experience in their ability to obtain healthy foods through government-assisted programs (i.e., Women, Infants, and Children (WIC), food stamps). Because of limited support provided by these government programs, many families are economically strained and often forced to negotiate the purchase of non-eligible, less-nutritious food items, which compromises their ability to maintain a healthy diet.

If they're able to negotiate their way into the WIC system for those with young children, that WIC check feeds the entire household. It's intended for one child or two children and, even then, that's a supplement, but it becomes the prime source of food for that family. So you find them taking a lot of different things on that WIC check. And for those who are able to get on the public assistance, and then they get their food stamps, they're doing a similar thing because they're even selling, giving stamps in exchange for other things. So what should go for \$100 for food may only go down to \$50, \$60, \$75, and \$25 goes for something else. So naturally you have to eat, and you have to feed, and so rather than getting 100 percent juice, you get a 10 percent juice, which is a gallon for \$2.00 as opposed to a half gallon for \$4.99. So the economics of it just makes it difficult for them to really have a nutritious meal.(Int6)

Further, the stress of poverty—the economic burden that residents face in purchasing healthy foods—impacts their mental health. For example, families often experience anxiety and frustration because they are forced to make trade-offs (e.g., paying electric bill versus buying fruits or vegetables) given their limited income.

I'm aware of the fact that there are people in my congregation who must choose between paying the rent and buying healthy food or choose between paying the oil bill to keep warm with and buying the kind of food that they need in order to be healthy and stay healthy.(Int1)

The fruits and vegetables and regular groceries that are sold in the stores in our communities...it's more expensive, which contributes the anxiety that a lot of our folk experience...So they have limited resources, but they're paying more for an inferior product. That's frustrating. That generates a lot of tension, a lot of anxiety and pressure, and it's probably

one of the reasons why a lot of the folks in our community come down with this heart disease. It's real, I mean the burden.(Int2)

### Cultural Influences on Diet

Participants had opposing views about the role culture plays in nutrition and diabetes.

Although some believed that the dominant "American" culture led to the deterioration of health among racial, and ethnic, and immigrant populations, many participants felt that traditional cultural dishes contributed to the diabetes and obesity epidemic.

I also think, though, that in communities such as this one you have people of different culture and that their culture, in terms of their nutrition and what they think that they are entitled to eat, or prefer to eat, is probably not as nutritious as that.(Int5)

For example, many participants identified Southern cooking ("soul food") as a major contributor to the prevalence of diabetes and obesity among African Americans/Blacks.

A lot of people in our congregation are from the South. Love Southern cooking, and you grew up on it, and you've been doing it, been living off it for so many years, and all your family, your family, all of your relatives been living off this. And they introduced it to you, from the time you was a baby, it have been continuing and continuing. It's hard to just get away from that but we must understand, what we must realize is that these foods come from waaaaay back to the time of slavery. That's what we have to realize. And those foods that we were eating was the food that Master didn't want... That's what he didn't want. It was the bad food. We got the scraps. What's no good, that's what we got. And you get people talking about fatback and all this kind of thing. That's not something for anybody to eat. But you got people talking about they make fatback sandwiches. It's ridiculous. [T]hat's why you have especially black people dying from diseases like heart disease and diabetes and blood pressure more so than anybody else, it's because of the food that we eat. It's not that we don't eat better food, but we love that stuff, okay? And it's not good. (FG2)

A couple of participants were cautious about labeling native cultural traditions as a "risk," but rather, recognized that the interplay between acculturating to the "modernization" of the dominant culture and the traditions of native culture may explain the disparities in diabetes.

I think part of what it makes it not healthy in a nutritional sense is just also the environment that we're in, where there's TV and computers and fast food, in cars, so that in combination with the traditional dish, it can make you unhealthy. But maybe in their own culture, wherever they originated from, if they were actually still living there, the combination wouldn't necessarily be unhealthy.(FG4)

[Y]ou don't have [native foods] on every corner, so you're only accessing—and that's why I think one of the things we have learned is when immigrants come to this country they tend to come healthier, and then after staying here and getting sort of absorbed in the culture then their health starts to deteriorate. We see the obesity increasing and the overweight increasing. And I think that's what we see here a lot in the Bronx. This is a perfect environment to see these things happening.(FG4)

Participants expressed difficulties in persuading community members to change centuries of tradition by modifying their diet or to recognize the importance of accessing fruits and vegetables from their native culture to promote healthy eating.

[W]e deal with churches and organizations where, in fact, the thought has always been “meet, eat, and greet.” And so, therefore, food has been a real part of the culture of the churches, be it Latino or African or African-American or Caribbean or whatever. In our community, food is a big piece, a fellowship, a piece of family, a piece of our ethnicity. So when we tell people that you are eating food that is not beneficial to you, unhealthy, I think it takes a minute for them to want to accept that. Like anybody else, it's just hard to change a habit or change something that is inherent in your being. You know, your mama did it and her mama before, that kind of thing.(Int5)

### *Institutional-Level Determinants*

#### Limited Resources and Services

Some participants reported various barriers to receiving quality health care, including not receiving referrals to specialized services, long waiting times at the doctor's office, lack of extended after-hours care (after 7 pm), limited number of free clinics in the Bronx, and potential costs for certain health services. Participants also identified the need to increase access to certain health services, such as mammography, blood pressure screenings, HbA1c testing, asthma management, and mental health services, particularly for children. A few participants reported obtaining care at teaching hospitals and “storefront” clinics, as well as at local emergency rooms “where you suffer” because it is the “only place we can go.” Only one participant discussed the delay in seeking care because of fear or worry of the outcome.



[I]t's also how the person who steps through that door as a patient is made to feel that this is really accessible to them. Even if I can get in there within your open hours, but I'm sitting in there for 5, 6, 7 hours—we're not even talking the emergency room, we're talking the doctor's waiting room or that center's waiting room—that's, again, closing the door in terms of accessibility. And those are hard and contributing factors of the health care disparity. You know that I don't go in with an expectation that my time is going to be efficiently used. You know, basically I'm sitting out here, and whenever you want to call me then, "Hey, I am just sort of at your mercy." Instead of thinking, "I am part, the reason why you're doing business. I am your client, your customer. Treat me well."(FG4)

### Racism and Discrimination in Health Care System

Many participants felt they were not receiving the same quality of care compared with others (e.g., not getting referrals, limited medication or treatment options), and they believed people experienced different levels of care because of discrimination. Institutional racism was perceived as a primary contributing factor to the different treatment experienced by community members, as well as to the perpetuation of health disparities.

Because of your color that you're not getting the health care that you're supposed to get. So it's just like racism in the past all over again. But it's undercover. It's in the health care system. So, because I'm black that don't mean that I can get the same—I'm supposed to get the same health care as a Caucasian person.(FG2)

Participants explained how discrimination and stereotyping is manifested through their interaction with providers. Some participants presumed that providers were racist and claimed that providers' discrimination contributed to the poor quality of care and health outcomes that they experienced. Others further challenged this behavior by asking whether it is not a provider's duty to help a person "get better regardless of who they are or what they know."

I mean I think that most of us don't look at a treatment physician as being capable of—not seeing us as being whole, and deserving, and not receiving the same information and treatment as the person who's next to us.(Int4)

[P]eople go to these medical facilities, and they see a smile in front of them, a smiling face. A smiling face is a friendly face. You know, so you smile back. And right then, you drop your guard...this person is your friend. This person is going to take care of you. This person is going to do the best he can to his ability to do the right thing for you. And that is the farthest thing from the truth. The smiling face is sometime all you get. And a lot of people leave with just that, and

they think they've been told something good, and they think they've been treated well. They think they have been treated properly, and they haven't. All they got was a smiling face, and they don't even realize that. And they leave out of the doctor's office saying how nice that doctor is, when, in fact, that doctor hasn't done his job.(FG2)

However, one participant believed that the variability in quality was not due to disparities but that the health care system in general is overwhelmed and the doctors have a high patient caseload; therefore, the providers are unable to adequately "concentrate" on the patients.

### Fragmentation of the Health Care System

Participants discussed the fragmentation of the health care system, which separates people according to the patient's ability to pay, type of insurance (i.e., private insurance, Health Maintenance Organization (HMO), Medicaid, no insurance), and geographic location.

Those people who have good insurance, they go to their doctors, and they get good treatment. Those people who have no insurance, they just get bad treatment. If you can afford it, you have your insurance, they give you all the referrals...And if you can't afford it, they give you two tablets of...two Tylenols, and they send you home.(FG1)

Also, as the others have said, some options are not even on the table. When you don't have private health insurance, then there's a lot of medication or treatment options that aren't your options.(FG4)

Insurance plans provided by managed care organizations, such as HMOs, were perceived to perpetuate segregation within the health care system by imposing barriers to accessing services. Participants expressed their frustration about how the health care system does not encourage or support providers to care for people insured through HMOs, or public programs such as Medicaid, or who have no insurance. Instead, the system funnels "poor quality" doctors who are primarily concerned with seeing as many patients as possible in order to raise their reimbursements to low-income, minority neighborhoods.

A lot of people of color is on HMO, so there's a lot of things that you can't get this here, you can't get this here. And so it's already cut in half of what that we're allowed to get. Or they drag

it out. You have to see this one. By that time, the disease has progressed. And that one don't accept the HMO. This one don't. And all the top doctors don't really accept HMOs. They don't because they don't get the fee that they need from the HMOs, so you're not even being able to see the top people within that particular field.(FG2)

In regards to the health care, you're not going to find top doctors in these neighborhoods. They're not going to have offices. What we have here are mills. Medicaid mills that the patients—the doctor may see 75 people in one day, you know. They are just not quality doctors. They're just shoveling the patients through and collecting that money. And the doctors—the top doctors—the ones at NYU and Columbia are not going to have offices in this neighborhood... So you end up with doctors who feel that, "I can come here, see more patients, make more money," and you don't get the top doctors here in the neighborhood.(FG2)

Participants further described experiences in teaching hospitals as being viewed as "guinea pigs" to conduct medical experiments on versus patients deserving high-quality care from experienced medical staff.

A lot of us do not realize that there's a certain percentage of patients that go to teaching hospitals. You are a patient that they will be taught on...When we go to visit the doctor, that's who we get, the interns. That's what they are there for. We come in, and that's what they are there for, is to learn on us...So I tend to tell them I don't want an intern. I want a doctor. Do not experiment on me.(FG2)

### *Community-Level Determinants*

#### Residential Segregation

Most participants discussed the current state of their community's nutrition environment in relation to the limited availability of healthy foods in their neighborhoods. One participant specifically articulated the negative impact of racially and economically segregated neighborhoods on access to healthy foods.

When you have a large supermarket, you're more likely to have [a] certain product in that supermarket as opposed to a small bodega owner. So it's an economic issue, and it's an environmental—as far as what is available in the neighborhoods.(FG3)

I think that in areas where people have been labeled "ghetto" or whatever else they might choose to...or when people are considered a different class or a poverty level...I think there clearly is not the same services. So therefore the stores and the—I think that the stores and other places where food is purchased do not have the same kind of quality of food.(Int5)

Others described the need for broader community and policy change in order to increase access to healthy foods within disadvantaged communities. Participants recognized the need to extend beyond traditional partnerships (e.g., community-based organizations) and collaborate with other entities in order to make significant changes.

What's most needed is a complete re-engineering of the food access environment for children and their families and the community residents, by which I mean, making it easy and promoting access to healthy foods instead of discouraging access to healthy foods. So it is a complete reworking... You've got to work with the distributors, with the farmers; it goes all the way back and forth through the whole way the food gets to a given community. It is not a simple programmatic thing that's going to come in and change this neighborhood. It is retooling the whole way that food is delivered here. (Int7)

### South Bronx as a "Food Desert"<sup>1</sup>

Many participants reported that the inability to obtain high-quality, healthy foods (e.g., fresh wheat bread, fruits and vegetables, low-fat milk) in the South Bronx is due in large part to the excessive number of local small bodega or food stores and the lack of large supermarkets in the area. In addition, the proliferation of fast-food restaurants in primarily low-income, minority neighborhoods such as the South Bronx was perceived to perpetuate racial and ethnic health disparities in the community.

You know, the unavailability of supermarkets in some neighborhoods, people having to rely on bodegas that have many fewer choices, no, or very few fruits and vegetables, things like low-fat milk, whole wheat bread. I think those are some of the key—in terms of access to food.(Int8)

The bodegas...they did not have fat-free milk. And they don't have nutritional choices, fresh vegetables. They don't have nutritional variety, a variety of nutritional products in the grocery stores...[W]e don't find the nutritional food like produce...When the people like to go to the store to buy something they didn't [find], that's I think a big problem.(FG1)

So yeah, you walk around the area and there's McDonald's. There is Dunkin' Donuts. There is other little fast-food places around the area, and not necessarily nutritional places or places that people should be reaching into to get the proper foods.(FG3)

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<sup>1</sup> The term "food desert" refers to populated urban areas where residents do not have access to an affordable and healthy diet. Reference: Cummins S, Macintyre S. (1999). The location of food stores in urban areas: a case study in Glasgow. *British Food Journal*,101(7), 545–553.

In my neighborhood, every other block is a Chinese store. Then they have fried chicken every two blocks...There's just too many stores like Burger King, Wendy's. I don't know, it might be a little different here but, in my neighborhood, it's just too many for me.(FG1)

The inability to get healthy foods within close proximity has led community residents to migrate into other neighborhoods in search of such foods. Further, people having to “go out of their way” (e.g., additional travel, time, money) to find healthy foods became overwhelming and caused them to settle for what was available in their own neighborhood.

And when we're in the schools and we're working with the parents and we're saying, “Make sure you get this and that,” then they're coming back and saying, “We can't find it. Nobody has it.” So this doesn't make any sense. And then you can't say, “Well, go to Pathmark,” because then you're talking taking three buses, and how do you carry it? You can't get your shopping cart up on the bus... But if we're saying to families, “This is what you should have,” and our Office of School Food is also preparing and providing these things, but then when you go out to the store, it's not there, then there's the contradiction, and then the parent says, “Well, this is my reality. Outside of those four walls is my reality. That's what I'm going to go for.”(Int5)

We will get a few people, a few of our parents in, “Okay, fine. I'm only going to take one percent milk. I'm going to make sure my kids eat a fruit a day and my kids get their vitamin supplements,” or whatever else we're talking to them about. They may bridge that gap of actually getting on the train to travel to another community to buy it, but then sustaining that is difficult so we have to be able to make it affordable and accessible in those communities.(Int6)

A few participants discussed the difficulties in obtaining bodega owner support for providing healthy foods, particularly if they believe it is not economically viable. Some participants discussed market forces (i.e., supply and demand) as underlying factors influencing the allocation of healthy foods in the community.

So it's interesting to look at supply and demand. The bodegas have no fresh fruits and vegetables available. You could get a banana. You could get onions. You could probably get platano—just kind of the ones that are less perishable—potatoes. But you can't get apples, oranges, pears, strawberries—forget it—even lettuce, tomato—maybe at the deli counter, but not so readily available. Well, which is the chicken and which is the egg? For a merchant, there's a financial question.(FG3)

And then if the good, healthier foods are not being purchased as readily, then their shelf life deteriorates. So then the stores buy less of them and it becomes this Catch-22. Even with lower-fat milks, it's harder to find lower-fat dairy products in some of our communities, in the lower income communities in the Bronx, contrasting to the better-income communities in the Bronx—

of which I can only think of one. But what happens is, you get them to buy it, but if the community doesn't purchase those food items, it goes bad and the grocer does what he has to do. He replenishes what sells and he doesn't replenish what doesn't sell...So it's supply and demand...Or demand and supply, actually.(FG4)

### *Macro-Level Social, Economic, and Political Determinants*

#### Consumer Marketing

Some participants felt that marketing of “medicines and junk food” also contributed to the problem of obesity and diabetes among community residents. Moreover, participants felt this type of marketing inappropriately emphasizes treatment instead of prevention and behavior modification, and it promotes unhealthy eating habits among children. They added that there is a need to focus greater attention on the importance of prevention instead of promoting treatment and medications as the “quick fix.”

First of all, you see a lot of commercials about medicines, diabetes, what medicine you have to take. But you don't see that many commercials talking about nutrition. You don't see that that much. If you look at the TV, they tell you that this is good for cholesterol. They be promoting more medicines than nutrition...Medicines and junk food...You'll sit down and look at TV, then you get like 10 commercials one after another about medicines. That's all they talk about. But you don't see about nutrition, and that is very important, the promotion.(FG1)

When you talk about the television and all those ads, commercials, it really misleads people. For instance, look at the cereals. Most of the cereal is loaded with sugar, and those are the ones that the children like. Those are the ones that they see on television and, when they go to the supermarket, they pick it up. And they say, “Mommy, I want this,” and the poor mother wants to keep the kid satisfied.(FG1)

I mean, in a good way, technology has come a long you know, by leaps and bounds, with medicines to control high blood pressure, cholesterol, diabetes, everything like that. I feel like a lot of people rely on those medications, and aren't looking to change behaviors necessarily. So they might be coming under control in certain—you know, with their heart disease or diabetes, but they're not passing anything along to their children, to their families so that a change in lifestyle is occurring... You know, it's amazing what technology has done, but I think that's also preventing people from adopting new behaviors. It's easier to have it just fixed with the medication.(FG4)

## Corporate Power

Participants recognized that the significant resource and power imbalance experienced by communities having to compete with marketing giants, such as Coca-Cola and Frito-Lay, to create environmental change to improve nutrition. For example, the power imbalances between local bodega owners and large food and drink distributors greatly limits the owners' control over what types of foods are provided in their stores and where healthy food items can be shelved.

Well, the bodegas don't control a lot of things that happen in their bodega. For example, the milk is essentially controlled by the distributor it turns out. So if the distributor wants to put the whole milk at eye level, that's where they're going to place it when they stock the case. The bodega owner, actually, it turns out, has very little say in that. So they're providing the space for the distributor to put their stuff. I don't know whether the other things are in bodegas work that way, but I have hunch that that's the case also. So if something's on sale, the bodega owner's not putting that thing on sale; the distributor is putting that thing on sale. So the bodega is a bit player in the way the food gets put out... You go in there; they have things that are very nonperishable: onions, lemons, potatoes, other root vegetables, and not very much fresh produce anyhow; it's mostly the canned stuff. So I think that's going to be hard to change because the market has to help change that. People have to [want] that thing before—you can't just change people's desires by changing what's in the store. They have to go hand in hand.(Int7)

The amount of public health funding to market healthy foods is noticeably inadequate compared with the millions of marketing dollars that large corporations use to advertise unhealthy foods (“junk food”).

So I think that's going to be rough without the...we don't have the dollars that Coca-Cola has or Frito-Lay have, or whatever the big companies are that when they decide to put something on sale, like Doritos, they can say it's on sale in the city, have a big campaign around it. That costs hundreds of thousands of dollars, if not millions of dollars. And the public health dollars for that kind of marketing are not as big unless the CDC wants to take on major companies. Well, doing distribution and marketing to the tune that major companies do it to promote their stuff. There's nobody out there promoting fresh apples. So apples have a relatively good shelf life for produce, but they're not going to sell if people don't—part of what they have to see is the marketing around it. And we can't compete right yet with the marketing that's done for unhealthy foods. So that's going to be tough.(Int7)

Further, the power imbalance that disparate communities, such as the South Bronx face in garnering political support for creating community-wide changes is apparent. Participants believed that the lack of political power to regulate markets forces to improving access to healthy

foods requires government intervention (e.g., government regulation of tobacco) in order to more effectively improve population health.

It's policy and dollars. Who gets the money? Why are we in overcrowded schools where we have no cooking capacity in our—that's really a political decision to keep students in the Bronx from having what other students are entitled to. I think policy decisions and pricing, budget decisions, go hand-in-hand...Studies have shown that when you price water, for example, at a less expensive price than soda, students will choose water every time. But we don't have the type of decision-making willpower to change our pricing scheme so that a Coke costs a lot more than a water, so that the brown rice costs less than the white rice, so the whole-grain bread costs less than the white bread, but not all more, but less, and on and on. We don't have the pricing scheme. Somebody had the will to put a tax on cigarettes. And what did we find out? We lowered the rate of new starts in cigarette smoking, right...We see a reduced number of students, children, or adolescents—whatever—who are starting. But we would need that same type of political will to influence pricing. We do a lot of farm subsidies in the country, but we're not actually impacting in a way that's positive nutritionally and especially in poor neighborhoods. So yeah, the school situation is also—it's about the money. The money is about the political will.(FG3)

### Social Production of Diabetes<sup>2</sup>

Participants cited modern political, cultural, and economic changes that are potentially influencing disparities in diabetes in their community. For example, families experiencing difficulties in preparing healthy meals because they work long hours or multiple jobs, have resigned themselves to having to eat out. This broader economic pressure has resulted in a social shift that has eroded traditional family norms of cooking and eating at home, and now favors and even promotes a “quick and easy” approach to eating.

I came a long at a time we didn't even have any fast food. I was here before there was a McDonald's or before there was a Burger King or before there was a KFC. Families used to eat at home. It's not that way anymore. Kids are eating at will and usually at McDonald's or Burger King, Wendy's, KFC, and they're not eating nutritious meals. Burger King sells salads, and that's fine, but these kids are not eating the salads. They're eating the French fries and the burgers and so on.(Int2)

I think that a lot have to do with external things that impact on the family because you have two parents now that have to actually work to keep the family going. So you have less food being

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<sup>2</sup> The phrase “social production of diabetes” refers to the correlation between the burden of diabetes and the changing patterns of subsistence, loss of political and economic autonomy, and the subsequent cultural evolution that accompanies these dramatic changes in a population.

Reference: Liburd, L.C., & Vinicor, F. (2003). Rethinking diabetes prevention and control in racial and ethnic communities. *Journal of Public Health Management and Practice, November(Suppl)*, S74–S79.



cooked at home and more food being eaten outside. And when they eat food in restaurants, the restaurants tend to now give everything super-size, or “bigger is better.” So we end up with people eating double portions, gaining more weight, and it’s a vicious cycle because you now have a generation of young people growing up eating out.(FG2)

[Y]ou have so many families with so many children, with so many things that impact their lives...When I was growing up, you couldn’t go out there without cooking because you always had to cook for the family. That’s not the case now because there’s all that tendency...for the fast food and getting it quick. And then people have other things they’re doing. They come home; they’re tired. So just “Pick it up from the Chinese restaurant.” It’s that whole idea. And so the knowledge and the skills are not necessarily there to have those children grow up in an environment where they can make those choices.(FG3)

As a result of this social and economic shift, many families are no longer skilled in selecting healthy foods or in preparing them, and cooking at home is now considered a “lost art.”

We don’t cook our foods at home, and some of us, we’re to a point where—I kind of feel some people don’t know what nutritious food is. They know some basics, but if you ask them to stretch that palette out of what they know as their basic, they won’t stretch it because they’ve never encountered it. They don’t know how to cook it. They don’t know how to shop for it. I had a young lady ask me, “How do you shop for an avocado?” I mean, I’m sitting there saying, “How do you shop for a pear?” “You touch it. If it’s firm, it’s not ripe yet, but you can buy it. You can sit it—put it in a paper bag, let it ripe up.” So this is an adult asking me how to buy an avocado.(FG2)

One of the problems, I think, is that people don’t know how to shop for food. And even in some stores where certain foods are provided, people don’t know how to prepare the foods...They just don’t like to cook. They’d rather eat out.(FG1)

Some participants said that eating outside of the home has resulted in people being socialized to believe that a “burger and fries” is more filling and satisfying than fruits and vegetables.

I don’t know, oftentimes some of the youth that I’ve worked with and others have mentioned how, unless it really fills you up and feels filling like a burger or something, it doesn’t feel like it’s a real meal. If it’s a meal that’s full of fresh fruits and vegetables, it’s not feeling like it’s substantial, like it’s really worth your money or something like that.(FG3)

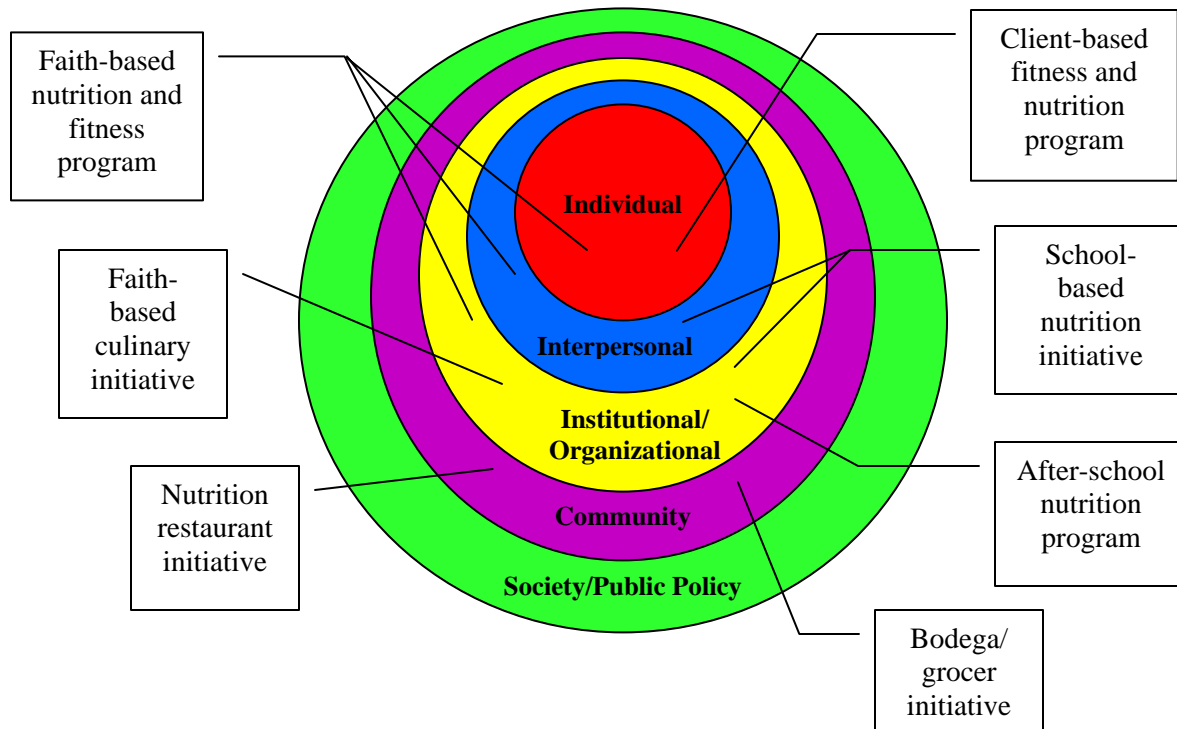
### **Characteristics of Bronx Health REACH Nutrition Interventions**

The qualitative findings presented in the previous section provide a rich depiction of the realities confronted by community leaders and members in addressing disparities in diabetes and

the deep impact that these health inequalities have on their daily lives. Participants noted significant environmental barriers (e.g., no large supermarkets, bodegas not supplying fruits and vegetables, schools with only heating cafeterias) impeding the ability to access healthy foods in the community. Participants also described broader political and economic influences (e.g., large food corporations, institutional and local policies, mass marketing) that perpetuate racial and ethnic health disparities in the South Bronx. In addition, participants felt that individual determinants, such as income, employment, culture, and lack of nutrition education, have negatively affected the health of community members.

Based on its initial community assessments, the Bronx Health REACH program developed nutrition activities to address some of these determinants. The program developed seven initiatives targeted at the various levels of the socioecological model—individual, interpersonal, institutional/ organizational, community, and broader society/public policy. (Figure 3).

**Figure 3: Socioecological Model of Bronx Health REACH Nutrition Activities**



The client-based fitness and nutrition program was aimed at increasing the knowledge and skills of community members on proper nutrition, physical activity, and diabetes management through educational classes. Two faith-based nutrition activities were initiated to increase nutrition and diabetes knowledge and skills through educational classes, as well as create organizational policy change by increasing access and availability of healthy foods at church events. The primary aim of the school-based nutrition activities was to change institutional policies to increase access to healthy meals and snacks for schoolchildren. These programs also included an educational component for parents, school staff, and children. In addition, the school-based nutrition activities spawned the creation of the bodega/grocer initiative, as program staff and partners recognized that the diet of schoolchildren also is influenced by the schools' surrounding businesses. Therefore, this initiative was aimed at

creating community-wide change by attempting to increase the supply of healthy food items and to prominently display those items to encourage healthy food purchases. The restaurant initiative also was initiated to create community-wide change by providing healthy menu options to their diners.

Most of the nutrition activities (4 of 7) were targeted at the organizational level (i.e., church and school settings), but they also focused on interpersonal factors. The restaurant initiative and the bodega/grocery initiative targeted the community level, while the client-based fitness and nutrition program solely targeted the individual level. According to the qualitative findings and program record review, each nutrition activity required program staff and partners to initiate specific action steps, which are presented in Appendix D.

In order to capture detailed information on the Bronx Health REACH program's multilevel nutrition interventions, focus group and interview participants were asked specific questions on various characteristics of the interventions and their experiences in developing and implementing them. Themes that emerged from their responses included descriptions of cross cutting elements of the program, such as the use of participatory and ecological approaches, the need to adapt interventions to local cultures and traditions, factors that helped or hindered the interventions (i.e., programs, enablers, and barriers), and the perceived impact of the nutrition interventions.

### *Incorporating Participatory and Ecological Approaches to Address Disparities*

#### Broadening Scope of Work

Initially, the Bronx Health REACH program focused primarily on creating individual-level changes. However, input from the community signaled the need to look beyond individual

behavior change and to use a more ecological approach that included multilevel nutrition activities. Some participants stated that addressing multiple levels could increase the likelihood of sustainable community change.

I think our activities are really sort of a multi-goaled approach, which is why we're going to educate as many individuals to make individual lifestyle changes. But there's also a recognition that we're going to make the sort of community-level changes, environmental changes, that need to go hand-in-hand if we're going to improve the nutrition in this neighborhood and, consequently, improve, or minimize, some of the risk factors behind the diabetes and the obesity and the overweight and all the other things, all the other chronic diseases that we've been talking about here. So I think that sort of context or background needs to be presented in terms of the activities that we're doing.(FG4)

One participant adamantly expressed the importance of continuing to increase awareness among individuals, despite the critical impact that policy change can make on reducing racial and ethnic health disparities.

I believe wide policy change is critical. In my mind, the sea change happens in terms of people being persuaded to change their lifestyle, or to advocate and insist that they get better health care. So when we talk—or make policy changes, even with our schools, it's the kids we're hoping that that policy change will change a lifestyle of generations of children. That will put them in the direction of eating healthier. It wasn't a policy change why the more affluent are eating healthier. It's because there became an awareness to be eating more fruits and vegetables, to be abandoning the high-fructose drinks. It was that awareness, it wasn't after a policy change. So I'm a little bit nervous about our putting all our eggs in the basket of policy change. It's a very seductive notion, and I understand that if it's a policy change that you're making, that you're hoping will affect the individual, who collectively, we will see improvement in the obesity race, in the diabetes race. But a lot has to be said about people first starting with the awareness and dedication that will lead to changes in behavior that will lead to a lifetime worth of changes that will cumulatively lead to improvements in people's health. So I think, for us, we've always been very aware of doing both and not letting one sort of rise above the other in terms of how we prioritize our work. I think that's definitely true. I see the policies just sort of making it easier for people to make those changes...I think it has to reach us on all of these levels.(FG4)

### Community Input and Participation

The Bronx Health REACH program used community-based participatory approaches (CBPA) to develop and implement its interventions. To support these efforts, it conducted qualitative and quantitative community assessments and created a community coalition work group, the Nutrition and Fitness Work Group, to participate in and have ownership of the various

nutrition interventions. The program also used current community assets to build community ownership and capacity within the targeted intervention settings, such as churches and schools.

And sometimes it's a matter of just showing the community that they already have the resources there that they might not have thought about before. Like in our churches, a lot of them have a nursing administrator, or if they don't, they have people who are nurses. And they realize that they can put together a ministry, they can have health assessments and health fairs, and that they already own these resources but they weren't really thinking about how to use them. Even the churches where they already have congregation members that are nutritionists or dietitians, that through the work with Bronx Health REACH, they're like, "Oh, so-and-so is a dietitian and nutritionist. They can be doing nutrition. We never thought about that." But that's another way of building sustainability.(FG4)

And the marriage was a good one because I had been speaking to people about eating healthy, but now, they're ready to hear it, and the message is out. So you have an environment where you have a win-win situation where you have someone who's been in nutrition for years who could actually bring certain things in as a part of that person, plus working with Bronx Health REACH. Pretty good.(FG2)

All participants felt that the nutrition activities initiated by the Bronx Health REACH program were driven by the needs of the community. Participants cited the initial assessments conducted by the program as efforts made to allow community voices to express such needs. Furthermore, some participants felt that as leaders in the community, their participation in the program's coalition allowed for that voice to be heard. Other participants believed that community members may not "know what it needs because they do not know any better"; therefore, it was the community members' responsibility to "help them see the need, identify the need".

[In] sitting in the various meetings...we're hearing from—I mean, there are people who are members of churches, who are in touch with the community, who know. They're bringing that voice to the table. And it is something, as we've done these focus groups, people don't really identify with the word disparities. They don't. But when you start to give them examples, then they say, "Wait a minute. That happened to me." And then they're realizing, "Wait a minute. That's not the way it's supposed to be." So yes, it is following very much the heartbeat of the community...[S]ometimes you don't think your voice will be heard. Bronx Health REACH has been working to bring that voice out to be heard.(FG4)

More importantly, as part of using CBPA, participants recognized the importance of engaging in co-learning between program staff, community members, and partners.

[I]t's been really important to be sort of open and humble and kind of understanding of the fact that I'm learning as much from them as they are from me. Because it's true, you know. I'm not going to walk in and tell them that this is what you need to know, this is the way that you're going to do it. But I think the only way that we're going to be successful is for all of us to sort of work together.(FG4)

### Civic Engagement

Another way the Bronx Health REACH program promoted community participation and ensured representation of the communities' interests in its health disparities agenda was to provide opportunities for community members to engage in civic and democratic practices. For example, participants cited local action rallies and trips to the state capital of Albany to educate legislators on health disparities issues in the Bronx.

We had this huge action rally and you couldn't get in this place. People are standing all outside, couldn't get in. We had no seats for them. It was held here at [church]. The balcony was packed, it was downstairs, we brought chairs for the people standing. They couldn't get in. And we had speakers galore. People stayed 'til the last speaker happened. I mean, it was awesome. And then it pumped them up to go to the rally. We had buses going up to Albany and walking around Albany.(Int5)

When this organization took 15 buses a couple of years ago to Albany...over the issue of health disparities in the Bronx, I could look out in that audience and see 600 of my own parishioners there. That's power. And then to have them come to understand we are taking the lead in this thing here and others are really following us...What would it be if we could get 15 buses from Brooklyn, from Staten Island, from Long Island, from Buffalo and from Rochester and Syracuse to meet us in Albany? If we took 750, 800 people just from the Bronx to Albany, if we can bring 7,000 people to Albany, what a powerful statement we would be able to make.(Int1)

When community members engage in such activities, it empowers them to voice concerns or questions in other aspects of their lives (e.g., regarding equal and fair treatment received by their health care providers), and it increases their self-efficacy to choose alternatives if they are not satisfied with their current options.

So my message is that you now know not only is it in terms of the nutrition piece and that you must exercise and you must do all of these things, but if somebody's not supporting this for you then you need to go someplace else and do something else. So to have a voice, to use your voice.(Int5)

### *Program Adaptation*

Participants described some approaches to adapting the nutrition interventions to fit the particular religious or cultural beliefs and traditions of the community members. Strategies included modifying traditional cultural dishes; promoting snacks, fruits, and vegetables familiar to community members' native cultures; tailoring messages to coincide with religious beliefs; and providing educational materials in both English and Spanish. The client-based fitness and nutrition program was initially tailored to a more individual case-management approach rather than a group approach, which included providing individual nutrition counseling. Participants noted that although resources may be limited, they realized the importance of tailoring the activities to reflect the cultural and spiritual beliefs and traditions of the affected populations.

### Modifying Cooking Approaches

Participants reported several modification strategies within their faith-based and restaurant nutrition interventions. For example, restaurant owners were not receptive initially to implementing major changes to their cooking methods. The program had to modify its approach by suggesting more incremental changes, such as increasing healthy options on menus. Although a few restaurants have made significant changes, the implementation of such changes has not been consistent.

At first we would go in [to the restaurants] and ask them to look at their menu and maybe change their methods, you know, the oils they used to cook with, or use a different type of seasoning that doesn't have as much salt or MSG. You know, making real changes to their cooking methods. We found that that was a lot to ask from a lot of the restaurants. They're real hesitant to make those big changes because they didn't want to lose any money, they didn't want to disappoint any of their customers who are used to their previous methods of cooking and presentation and everything. So we sort of changed our strategy, and we now just ask the restaurants if they will allow us to highlight, or promote, the healthier items on their menu... For some of our restaurants now we feel like it's the time where we could actually talk to them, some of them, about making those larger changes that we tried in the beginning. (FG4)



Two other tailoring approaches identified by participants included modifying traditional Southern dishes offered at church events and providing nutrition and diabetes information to community members in English and Spanish. Participants felt that the nutrition interventions would be more effective if they were adapted to reflect and respect the community members' native cultures.

I think what we try to do in our culinary initiative in the churches is to take people's recipes that they like, that they eat, and modify them a little bit instead of saying, "Just scrap your whole history, don't eat any of the foods you're familiar with, eat only from this list instead." That's not going to get anybody anywhere. But if you say, "All right, let's look at what you're eating and sort of come up with small ways to modify it," I think it's a lot more of an effective strategy...As a nutritionist, speaking to people from different cultures, especially not my own, I feel like every time I'm saying, "Oops, no. That's your traditional dish? That's bad for you. No, that's bad for you, that's bad for you."(FG4)

### Integrating Health and Spiritual Messages

Although participants reported a range of messages that have been conveyed through the various nutrition activities, some messages were tailored to incorporate cultural or spiritual beliefs and values. Participants overwhelmingly expressed the importance of integrating health-related information with spiritual messages, such as "the body is God's temple." Health-related messages also were synchronized with spiritual callings for individual and social responsibility. For example, one of the faith-based nutrition interventions emphasized "choices, decisions, and consequences" as the primary motivating message for changing behavior.

We are a faith-based movement...and that means we have all belief in the Bible and biblical standards. And what Bronx Health REACH has been inculcating in all of us is our bodies are the temples of God. And, therefore, it is very important that we take care of our bodies because that's the Blood's honor and glory.(FG1)

And one of the things that's taught from the pulpit, preach from the pulpit, is love. And you must start with yourself, and you can't love me if you're going to kill me while you cooking for me...And that's what I have—and I mean, now, that's what's being done. People, you may not want to look at it that way, but that's what is being done...People come off, "Baby, look what I got for you," and you did it with all the wrong things, and that's what's happening, not intentionally, but that's what's happening. So if—the more we talk about it, the more we'll be about it and the longer we'll be here.(FG2)

You can't be wholesome and healthy and happy if you're sick, and you can't be wholesome and healthy and happy if you're eating the wrong things. You can't love God without loving one another. Scripture teaches that. How can you say you love God whom you cannot see and not love your brother whom you see every day? The commandment says love God with your heart, mind, soul and strength and your neighbor as yourself. It begins with God. Real love, true love, enduring love must begin with Him. You don't want to see the people you love suffering, and you don't want to see them engaging in self-destructive behavior.(Int2)

Participants reported messages of good health being preached from the pulpit, and they felt their pastors played a critical role as “messenger” and “visionary.” Pastors have great influence on individuals' actions and attitudes and act as change agents within their churches because of their position in the community. Obtaining pastoral leadership and support in advocating and promoting healthy changes among congregants was considered essential. Many believed that both the church and the Bronx Health REACH program were spreading “the good news.”

But it's so important to get your pastors really, really enthused with this. Now, the pastor that I had had a heart attack. But, when I approached him and I asked him, “You know once in a while, every other Sunday or so, Bronx Health REACH would like you to speak about a health issue.” And his response was, “Well, no one's going to tell me what to put in my sermons.” So he was not connected. He was disconnected. He was disconnected to the seriousness of health issues even though he had a heart attack. So I'm just saying it's so important.(FG1)

[My role as a pastor is] to help my people understand that there is a direct connection between my spirituality and my physical health and well-being, and that there is a direct correlation between their spirituality and the care that they give to themselves and to their families.(Int1)

I [as a pastor] try to evidence to the people that it's important to me, and that translates into them wanting it to be important to them. They're saying, “Well, Pastor likes what we're doing, so it must be something to it.” That's how I help.(Int2)

Participants also explained that “consciousness raising” efforts went beyond conveying healthy messages but were believed to be an integral part of one's worship of God and a ministry of the church. As such, messages urging “faith in action” helped to motivate community members to take active steps in leading healthy lives.

It has to become for us a serious discipleship issue...For us, there needs to be Biblical and theological foundations for what we do. It's best, if we want to relate this to faith and if we're going to talk about these as things that the people of faith need to take responsibility for, we must make it relevant from a Biblical and a theological perspective. And I think that's the reason why we've seen such success in our communities here in the South Bronx is we have made an all-out effort to help people to understand that this is just as much a spiritual matter as it is a physical matter. And if it's a spiritual matter, if this is something that we're able to guide them to some Scripture reference to understand—that we're directly responsible for the steps we take to ensure our health or the health of our family and the health of our community—it would serve to galvanize our community and to help each one of us to take another look at how we look at what we do...Helping people to understand that the very act of cooking and preparing a meal can be an act of worship in and of itself; and the act of preparing and serving, and eating a healthy meal can be a worship experience itself.(Int1)

### *Program Enablers*

#### Program Leadership

Program champions were individuals considered to be leaders or advocates of the nutrition activities. All participants identified Bronx Health REACH program staff as program champions. Pastors, the faith-based program coordinator, and senior staff of the New York City's departments of health and education also were believed to be program champions. Some participants expressed their reliance on program leadership, as well as on the program staff's support and resources as critical elements in the churches' continued participation in the program activities. One participant believed that if the faith-based coordinator was no longer part of the program, congregants "would panic." Key characteristics of a program champion identified by participants included passion and conviction. Participants felt that the Bronx Health REACH program's leadership and consistent efforts in building partnerships with various entities positively influenced the success of the nutrition interventions.

And I think, as one agency, we wouldn't have a prayer. But as a coalition of groups, I think we have a strong presence. To me, that's been the beauty of Bronx REACH's presence. I feel like the successes that we've had in our little program are really due to the partnership coalition that we have and that openness to engage in that.(FG3)

So I think when you spread your tentacles out and you welcome them the way Bronx REACH's leadership and Bronx REACH has done, it brings a sense of pride to the partners that are

involved. And partners have partners, so it just expands and allows people to work together very cohesively; instead of opposition, they work together.(FG4)

Participants identified the lack of a “bureaucratic mindset” as a key element of leadership. They defined this as a refusal by individuals to be confined by administrative procedures or rules in their attempts to address racial and ethnic health disparities.

[There] is an absence of a bureaucratic mindset. It’s the folks who, when you think of any sort of revolution or struggle, it’s always the folks that are not going to be bound necessarily by the rules and regulations or their ambitions but are the folks that are willing to step out and then tell their organization—you know, make a case why they think their organization needs to be involved and why they got their organization involved...I think that is what has made this partnership and collaboration and coalition really unique, the fact that we’re sort of not looking over our shoulder as to who has had the sword that’s going to chop us down and say you can’t do it. We have to do this and we are doing this, and then we’ll go back and explain to the others who maybe don’t quite understand why this must be the public policy agenda.(FG4)

The program’s ability to show leadership through its commitment and loyalty to maintaining partnerships and the nutrition activities also played a key role in organizations’ willingness to partner with the program.

When I first started and made the initial round of our-then partners, one of the things that I was asked up front initially by one potential partner was, “Are you planning to stay with this program for a long time?” Because the partner said, “If you’re not, I’m not going to be coming back.” It wasn’t so much me, because the partner didn’t know me as much. What that partner wanted to know was that the leadership was going to be consistent and there was going to be longevity. But I think the consistency was very important to many of the partners. Because I think they had too many experiences of people coming in and then leaving, and then people felt, “Well, why did I invest that time if this has now been abandoned?” So there was, for want of a better word, a healthy dose of cynicism. That “I don’t have that time, energy, and effort to waste into something that I have no guarantee.” There will be consistency and longevity in this thing, and I think that has been an important component so we can see we started from this and we have grown here.(FG4)

### Institutional History and Support

The Institute for Urban Family Health’s history within the Bronx community provided a strong collaborative foundation by which to expand the REACH program. Because of this history in the community, the Institute was viewed as a trusted convener and advocate.

But Bronx Health REACH had started because the Institute for Urban Family Health had partnered with others to set up health centers. So partnerships existed even before Bronx Health REACH came on. So you are going back into history. You know, that, I think, is sort of an important point not to be missed. Bronx Health REACH didn't just emerge, but Bronx Health REACH was also an organic growth out of a health focus that its parent body had been involved with and had partnered with others, and had legitimacy with others because of that history. So there wasn't now a steep learning curve. Because people were like, "Oh, I had worked with the Institute before, and they are a legitimate organization that you can trust because they're the health centers and I worked with them. I was their community partner that established the health center." People who already believed in those people and had faith in those community-based organizations that had worked with the Institute before. So they said, "Okay, I'll work with them because you said you worked with them and they were good, and you have proof of it." So we also sort of rode in on the backs of others that the Institute had partnered with before.(FG4)

A few participants felt that working within stable and trusted institutions such as faith-based organizations facilitated behavior change among congregants, particularly because it provided a "captive audience" who "made a commitment to change."

### Unified Vision and Goals

Participants acknowledged that the most significant enablers in continuing their work are the partnerships that have been built, the shared vision among all partners, and the "universal recognition of how bad the health problems are here in our community" that has increased the sense of urgency to provide solutions and create change.

You're not an island by yourself. We're all trying to reach the same goal, and we're all coming together to help each other to reach their goals. We all have the same problem...So we're working at it...We're an army. (FG2)

I think we share a certain vision. And I believe that vision is that everyone is entitled to a healthy, exciting, vibrant life, that in an urban environment you can have clean, fresh, delicious access to foods, to air, to parks, to schools; that all of this is all very possible. And I think we share that vision that it can be that way, can look this way. So we provide the partnership, and I think we share the vision.(FG3)

[P]eople are committed to making it work...I think the common trait, or characteristic, that runs through all the partners is a real commitment to making—not just staying in my little area or turf. It's a recognition that there's a big playing field and we all need to be playing on it together.(FG4)

## Program Support and Capacity Building

Participants were able to continue the nutrition activities because of the consistent support and resources they received from Bronx Health REACH. The program initiated several capacity-building efforts including workshops and presentations on nutrition and health disparities, as well as trainings for congregants who wanted to become faith-based nutrition coordinators or fitness instructors.

When I call them for material for anything, they respond very quick. So that makes it easy for me... Whatever I ask [program staff members] for, I get it, all the literature in both languages. I get it. So I have no complaints with Bronx Health REACH, and I'm glad to be a part of it... I'm very happy with it. No telephone message has ever gone unanswered. Whenever you call there, you are getting you answer, and you're getting everything that you ask for. So we get the support that we need. Yes, we get the support.(FG1)

So you know, it's something—I'm so thankful to Bronx Health REACH for coming, for bringing this information, and that I'm a part of it. I'm thankful for [church], that I'm a part of this because I'm able to give this to my people, let them know what's going on and how I can be of assistance to them. It's great.(FG2)

Although some participants did not seek external funding for their nutrition activities, others did explore or obtain additional funding. Participants were less likely to assert that the activities would continue if they no longer received funding or other resources from Bronx Health REACH.

One of the things that this work group will consider when we next get together is, with our restaurant and our bodega initiative, what do we need in order to do some real marketing and some real development, to push this, to expand this, to be in the bodegas to look at signage. What do we need to do? And we're up against resources. We need to figure, is one of the avenues we're going to look at going to the food producers or the food manufacturers. The healthy snacks that we're trying to push or the low-fat milk that we're trying to push, and saying to them, "Can you provide some resources for us to do this? You spend millions of dollars in changing behaviors and getting people to buy your stuff." I mean, who in their right minds think that a lot of resources don't need to be spent improving the health of this community?(FG4)

Others believed that continuing their work in addressing racial and ethnic health disparities was critical and would not cease even without funding and support from the Bronx Health REACH program.

Doesn't mean we're going to stop...And as a result of I guess Bronx Health REACH and just reaching out, I found a lot of different resources. I don't think it would stop because...we've been, how do you say, well-trained, that, if one thing disappears, you just go on to the next thing. And it opens up another door. And not only that, we have each other...I don't know if I said but I don't believe anybody here was doing this because we were being funded...It's a passion. It's a passion. Because, because if that was the case, I don't think we would be here.(FG2)

So we're the resource that Bronx Health REACH has invested in...I don't think we could stop if we wanted to. They wouldn't let us.(FG2)

The church that reengineered its kitchen, it found the resources to do it. The fact that that church kitchen reengineered its whole equipment and everything like that; the resources weren't just sort of lying around waiting to say, "Hey, use me." There was a recognition by the pastor and the people who were the decision-makers in that church, and then they said we're going to do this. The faith-based part, the faith-based coordinator of that church laid out the proposal. They found the money, or decided that they were going to find the money, to do that. So I think there's a real commitment that we're not going to abandon this, this is too important.(FG4)

### Partnership Building

Participants felt that creating diverse collaborations with various individuals and organizations would increase the ability to pool and leverage resources as well as create a more powerful influence to address racial and ethnic health disparities.

So the intent is not this program out here, sort of trying to find its way, it's not this program here, but meeting together, our efforts...[T]here was also sort of a recognition that we needed to partner, or be involved, with others in order to address it...So it's not just individually programs struggling with their own issues, but now there are more resources added that they know of and are partnered and collaborating with.(FG4)

So, for example, when we made the changes around the milk policy in the schools, a lot of flack was generated. You know, we had politicians who heard from the Dairy Council that said this was a unilateral decision made by the bureaucrats in the local district public health office. It wasn't. So REACH can come in there and say no. Many community advocates were at the table when that decision was being made. That decision came about only because a whole coalition of folks—health care folks, grassroots folks, churches—all that went into that stew. Said we have a real problem here in terms of childhood obesity, and this is one positive side that we are all behind. And because we have a sort of partner within the department of education and within the public health office and whatever, that we could say a whole group of folks are massed behind this.(FG4)

The beauty of this is this blossoming that has happened is this creation of partnerships that really is a meshing of one with the other, has created some concerted efforts. And borough-wide and, in some cases, probably citywide, in effect, a great coordinated effort to really achieve something. You think that we all work together, but the reality is we don't, generally. I mean, there's different funding sources from all over the place—local, city, state, federal—and everyone's doing their own thing, and they want to do it best. It's not about credit, it's about us all working together to get there. So by partnering together, including health centers and everyone that has been created, you created a healthy cycle instead of a destructive cycle. And I think it's a great model.(FG4)

Participants recognized the considerable value that partnerships have in continuing the work of improving community nutrition and having a greater impact on environmental changes.

And as we bring more and more people into it, then I think we'll start seeing more of the policy change like we just had with the low-fat milk. And I think what we're doing right now is sort of laying the groundwork in a really, really important way. So I think the change we see now is really exciting, and we'll continue to see that more and more on different levels, as we bring more partners in to what we're doing.(FG4)

Participants also recognized the need for community organizations and entities to communicate openly about their programs and activities to find areas of agreement and to avoid opposing priorities or agendas.

We need to be talking to each other so we're all standing on the same ground and we're all in the fight with the same goal." So that has been a lot, a willingness to say, "[We] didn't know." We need to gather around and start talking to each other to make sure we don't inadvertently stand in each other's way.(FG4)

### Adaptation to Partnership and Community Realities

Some participants also discussed how changes in leadership or partnership roles created challenges for the program to adapt and maintain their partnerships.

Their role may have changed, but at least I'm basically speaking to the same person, if not the same cast of characters. At least there has been consistency with who I'm talking—I have some history. And there is somebody who is always going to be reaching out to me saying, "What's happening? I need you to get involved in this way again. Okay, that hasn't worked, but your involvement is critical to this because you are such an important component of this community and you are so invested into the improvement of this community." What's happening here is too significant for us to be playing catch-up too many times. Because, for the most part, the players in REACH have been there from day one. Even though we have formed new partnerships, we are also partnering with folks from the very beginning. And even if their roles have changed, the



relationships have maintained. So we're always looking for new rules if old rules are no longer relevant or working...It's a recognition that it's a relationship and that, like any relationship, there are two people involved in that relationship. I am going to tell you up front that you're too important a partner for us to let just totally abandon this relationship. "I cannot afford, even if the roles have changed, for you not to be a part of this. You're too important to us." It's a mutual recognition of the importance and significance of longevity.(FG4)

In addition, expecting local businesses, such as restaurants, to participate in the nutrition initiatives meant taking time to establish and build those partnerships and acknowledge community realities by modifying action steps to meet those needs.

We found that you really need to establish a relationship with the owner and the people working at the restaurant. You know, gain some trust and let them kind of see what the program's all about and let them feel they add a little bit. Once that relationship is growing, hopefully, maybe talk to them then about making some changes. So the restaurant program's only been going on for about 3 years.(FG4)

You had these ideas that you're going to go on this mission and this approach. That wasn't working, but you still want to reach that goal. So you said, "Okay, let's make a little right turn and change the methodology and the strategies we're going to use so that we develop these relationships and the level of trust." So you went a little different way so you could still achieve the goal. Instead of saying, "Okay, you need to change the way you prepare your food." "Can we just highlight some of the good choices?" And then maybe 2 years later some of them will be more willing to make changes. So I think, for your organization, being ready to recognize that you need to use different strategies to achieve this goal. Some people don't realize that. Some people don't get that.(FG4)

I think this whole business of change and the different cultures and different languages, and the changing community. I mean, that's the hardest thing. That is incredibly difficult to do, and no one wants anyone telling them what to do. So you have to work from within the community to branch out... I think that our willingness as an organization to be flexible, as you said, and to really listen to the community. I think, as an organization we show that we care about the community. That we're coming in with our own agenda, but we really need their help in order to move it forward so we want to know what the challenges are actually from the people who experience them. And I think, hopefully, that makes us able to do our job a little bit better.(FG4)

### *Program Barriers*

#### Conflicting Interests and Priorities

Some participants believed that competing priorities with partnering organizations, such as local schools, led to difficulties in conducting nutrition activities.

It's really hard to get down to fixing health problems in the school when there are so many other problems that seem like they take priority both in people's minds and just in the day-to-day functioning of the school...There's no time to sit down. We barely find the time for the once a month to meet as a committee. It's just a challenge working in schools. There's no time to talk about it all.(FG3)

Participants discussed the challenge of garnering support in schools to set nutrition-related priorities, such as serving healthy foods, and also felt a need to help school staff recognize the important link between health and academic success.

I think also trying to connect to the school administration and the staff's minds that health is related to academic...Because at this point they're stressed about just passing the tests and all of that. That definitely takes priority, but trying to connect is like, "Well, they get their exercises. If they go out during lunch and get their energy out they'll be able to focus better." If they eat less sugar, they'll be able to sit still and learn.(FG3)

### Time and Resource Limitations

Participants also expressed that limited time, other obligations, and limited resources as major barriers to doing the work in some program settings (i.e., churches, schools, and community-based fitness centers).

Sometimes, for instance, you want to hold a seminar or that and all the things that are ahead of you in the church. But most of the time we try to get along. But that sometimes prevent us from doing what you want to do at specific times.(FG1)

Now if we could do this as jobs that'd be great. It's not to say that we want to get paid for it, but if we did, we wouldn't have to do the other things we're doing. That way, we could concentrate more on it, you know... You get pulled in so many directions. It's not really you don't want to be here, you know. It's just like that...Because I had prior commitments on the job.(FG2)

Participants also discussed resource limitations within the local school system (e.g., heating cafeterias, overwhelmed teachers and staff). These limitations created challenges in implementing the nutrition interventions and were believed to significantly hinder the ability to create a supportive environment that promotes healthy eating.

[O]nly about half of the cafeterias within the Bronx are actually cooking cafeterias within the schools. Half of the schools are what you call heating cafeterias. So food comes in prepared and then it's heated to a certain temperature, which is designated, by whatever those sanitation requirements are. And there have been changes, but it does mean that you see a lot of breaded items on the menu because it's easy to heat a fish filet or a chicken filet or something like that; it's a very reheatable food. That's a problem. It's a problem when we want to try to teach nutrition to the children and then the cafeterias can't actually prepare the menus with the recipes that we would like to expose the children to...[T]They could really be classified as abuses that go on in schools...And it's so dysfunctional. Cyclic dysfunction. I walk through the lunchroom all the time. I'm a lot more at the school now and just walking through there and listening to the yelling, like the noise-level, I can't even barely be in a lunchroom without just feeling totally stressed-out immediately. And how a child like this big can actually sit down and eat in that environment while they're getting yelled at and pushed around. And when they go to the adults for support, the adults usually yell at them also and send them back to their seat. And the classrooms, it's the same thing. The teachers being so over-extended...You can just snap so easily. And then all the way up to the assistant principals and the principal, and everybody's so overextended and clearly overworked.(FG3)

Participants asserted that limited resources are a major barrier to implementing and maintaining their activities, as well as in their battle to eliminate disparities.

Let us not ignore the obstacle that lack of resources presents in terms of achieving even some of the successes. The resources, I don't know why we think that poor communities somehow can do a better work around lack of resources than anybody else. Why we think we can conjure magic out of limited resources, its ridiculous...But the fact is that things don't happen unless there are resources to make it happen. We are so creative and adept at creating magic to have things happen. But we keep slamming up against that brick wall that says there is just so much you can do without resources, and that's the real critical piece. Resources are extremely important and have been real obstacles in terms of all that we can achieve. (FG4)

A few participants expressed frustration at the constant pressure to demonstrate impact and to create community change, particularly within a limited timeframe.

I mean years and years and years. Because we don't have results of an increase in milk consumption within 1 year, all of a sudden we're seen as failing, or we're getting a lot of negative press. And it takes so much more than a year. You know, it's going to take years and years and years. Sometimes it's frustrating to have to write a report and be like, "Okay, well, we're supposed to this by then but because of whatever circumstances or because the people think something's going on in their church and we couldn't do it." I mean, it just takes time.(FG4)

Why are we being judged about impact and change over activities that have either taken place within the last year or even the last 6 years? Why are we being asked to reverse trends that have taken years to lead us to this crisis point? Something, to me, is wrong with that picture. And I am not worrying for anybody to back us into a corner and say, "Where's your data?" "Well, we don't

know about the data. We understand that it's an important thing for us. We're paying attention and trying to gather." But we have multiple stories to talk about changes that have been made on multiple levels. And so individually we think there's a reduction in disparity.(FG4)

### Resistance to Changing Attitudes and Behaviors

Participants identified changing eating behaviors, such as eating smaller meal portions and reducing consumption of native cultural dishes, among community members as a major challenge. One participant believed certain cultural beliefs related to body image contributed to the challenges in creating behavior change.

That is very hard to change because my congregation is West Indian. And, well, they like the native food. The rice and peas is good cooked with the coconut. They eat a lot of that, along with other things. People are very sensitive about food portions. If you try to tell somebody [to limit their portions], they will say, "Oh, no." And when we have special days and we serve downstairs, I think I blame the people who serve the food because they have a lot of food. And they really, really, really fill up your plate. They cook a lot of food. Even the children, and the children don't eat all of it. They don't eat the salads and so on. So it's a sensitive thing. But people will learn.(FG1)

And the older people, it's harder with the older people because they are set in their ways. I like to talk to my congregants, especially those who are diabetics, and find out how they're coping, what their challenges are. I have two people, husband and wife, they are in their 80s, and both of them are diabetics. And at this stage of their life, they are going to eat whatever they have been eating all along. It's going to be hard. The gentleman loves fried fish, fried crisp and, if you tried to tell him to skin the fish, forget it...They're not going to do that. And the lady, she had an ulcerated neck, and she almost lost her leg. So what are you going to do with people like her? You just have to encourage them and try your best with them. (FG1)

Well, the inability to change, but also cultural reasons...Some countries, really, they want their women to be heavy, the men. So therefore, if you're trying to tell them obesity is not good, it causes high blood, can cause diabetes, they don't want to hear that. So it's cultural sometimes.(FG1)

### *Perceived Program Impact*

Participants' responses to whether disparities have been reduced as a result of the Bronx Health REACH program's nutrition interventions were mixed. Although some participants believed that disparities were being reduced as a result of their work, others were more hesitant to conclude that disparities had been reduced. However, they did acknowledge that incremental

changes have been made among community members, and cumulatively, have influenced policy and environmental change.

But I think also Bronx REACH, by going into the communities and going into the churches and bodegas, to go where the people are and to educate and make them aware of what's available, hopefully it's one chain in that big link that helps to reduce it. I don't think we're anywhere near there yet...I think a picture is emerging. We have an entire region in the Bronx that changed its milk policy, which led to an entire—the largest school system in the country changing its milk policy. But we have multiple stories both at a system level, at an institutional level, and at an individual level of starting with an awareness leading to some sort of behavior change, whether on the micro or the macro level... We have many of those stories, and I think individually, yes, those are indicators that we are eliminating it. [B]ut I don't think we need to be ashamed of these individual stories of changes that have been made that we feel—where, as you said, 20 years down the road when we look back, we're like—it's a combination of all these actions and activities that have led us to this point.(FG4)

You know, you feel so frustrated because maybe our goals are too lofty, or you're not reaching your milestones at exactly the point you said. So you say in a year we didn't achieve as much as we want. But then when you look back five years and see where we were five years ago and where we are now, all these little steps became these giant steps. But we didn't realize it was happening. You look back and like, "Wow, we really did some good work." But sometimes you have to look back a little bit more than that window that we thought we'd have to—you have to look back more than that year. And yeah, change takes time. So the better thing is if we start, even if we don't do as much as we think, because these things take off from themselves. Then they become the snowball that could result in something really good.(FG4)

### Individual Changes

Participants perceived that some of the nutrition activities initiated by Bronx Health REACH have created change, particularly in "raising the consciousness" of community members.

One, when I think about the Bronx and when we started, for example, the faith-based initiative, how many "aha" moments we had when people heard about the bad things that they were doing in terms of the food that they were having.(FG4)

Other changes included increased screening and diagnosis, understanding of the importance of healthy eating, skills and knowledge for modifying recipes, and willingness to try healthier versions of traditional dishes. There were also many testimonies among the participants on the weight loss they experienced or witnessed among fellow residents.

And I made a pact to myself. No more junk food. I don't fry anything...I got stuff in my house that I eat now, and I never know I would ever put those stuff in my mouth. One more thing. Peppers. Now, I love my yellow pepper, my red pepper—my orange peppers. I am putting pepper in my oven and baking it and eating it today. It feels so good. It make me feel so healthy. My doctor is so proud of me. Sometime I go and say, "Just kiss me and hug me," because [he] asked me to lose some weight 'cause he said I'm a Black woman going past my 60s. He said diabetes, high blood pressure are trouble and he didn't have to tell me another time. Now he asks me, "How little bit you trying to get?" "As I can," because it's my health...I'm going to eat what I think is healthy for me to eat because in the long run it going to help me.(FG2)

You know, we have heard repeated time and time again at so many of our churches, people who have done weight loss or weight management or whatever, that I think a picture is emerging. I don't know if that picture is going to collide with the data quite yet, but a picture is emerging. So we have institutions that have changed what they're doing, the way they're thinking about it, the pastors that are talking about it from the pulpit, the pastors that are now living examples of reducing their weight. You know, there's so many stories being told throughout. So we have the MARC after-school that started with nutrition education, that started looking at the food that they were providing to their after-school students, how they were serving. And so there are mounting individual pictures of it.(FG4)

As a result of increased knowledge and skills, participants feel empowered and connected to their fellow community members, and this knowledge, has helped them to become change agents among their church and family networks.

Well, I have been in REACH by doing this work, having exposed to a lot of knowledge by doing this work and having privilege to meet so many people or something...Yes, I have been benefited personally, and I will try my best to continue to help others...It gives me a sense of satisfaction to know that I can do something to help people.(FG1)

To me it's teaching a lot about being patient with people. You have to have a lot of patience to work with them. And also, you have to be very persistent, and I learned that, to be persistent. You say something to them. You know you have to stick to it and don't change.(FG1)

### Community and Policy Changes

Participants offered several examples on the informal policy changes that occurred with organizations and businesses. For example, faith based organizations changed their Sunday service menus to include healthier versions of traditional cultural dishes (e.g., baked versus fried chicken), offer new healthy dishes, and change the presentation of foods to promote the healthy

dishes. One faith based organization reported reengineering its entire kitchen to ensure greater availability and provision of healthy meals during all church events.

Participants also reported changes in informal policies within local businesses, such as restaurants and bodegas. For example, restaurants modified their regular cooking methods (e.g., using olive oil or products free of trans fat) and added a few healthier items to their menus (e.g., baked versus fried fish or chicken). Local bodegas promoted healthy snacks by placing them in more prominent areas (e.g., a basket with bananas and apples by the cash register), and they began offering more healthy products (e.g., low-fat milk). Fruit purchases increased as a result of these strategies; however, bodega owners reduced their supply of low-fat milk because of concerns over loss of revenue. Participants also reported success in changing the changing the policy in elementary schools to ban whole milk, which also became a citywide policy.

[T]he major impact that was achieved in the New York City schools by having a change in policy for the availability of low-fat milk as opposed to whole milk that was recently achieved as a result of the advocacy efforts of the coalition. And it was initiated in the Bronx. And it ended up being a citywide policy that impacted over a million children.(FG3)

### *Maintaining Momentum*

Despite the challenges, many of the participants seemed motivated to continue the work to improve nutrition in the community.

But we can't stop pressing. We must continue to press on and keep pressing, so it becomes as widespread as it needs to be, and all our communities in this city, that they should have the kind of foods in our community, in the grocery stores, that we need, the kind of nutrition that we need to maintain a healthier lifestyle. We shouldn't have to go in a suburban area or out of our community to find these things. But if that's the case, then that's what we start doing, we need to make them know that. I'm sure there's a way we can get them to do that.(FG2)

The work that the Bronx Health REACH program has initiated was seen as the genesis of a new “movement,” reminiscent of the 1970s housing reformation in the South Bronx. Participants

described this movement as the germination of the program's activities and their network of partners.

I actually see it as a little acorn that got dropped in this ground, fertile soil...It was just one of those moments of sheer serendipity. That the people that were already doing things were here, and we came. It's sort of an organic growth. As we started talking and hearing about each other and making the connections, it's almost like we're connecting the dots. Sort of developing this really wonderful network around nutrition. So now we're talking about Bronx-based policy effort around nutrition. That's to the point that we're now going.(FG4)

So I was a housing organizer in the '70s when the Bronx was in a burning state. And from those days, fast forward 25, 30 years, we see that hundreds and thousands of affordable housing units have been built. That it's a can-do. And with that, with the same concept, within a generation there's absolutely no reason why the spike we saw in obesity and diabetes can't be totally turned around. There's no reason why that can't happen. And it isn't all right to lose another generation. And I think in a way we had a victory in the Bronx, which actually propels us to say, "Okay, if we could handle housing, then those health factors can also be dealt with." A little bit more to this than bricks and mortar, but still totally reachable.(FG3)



## CONCLUSION

Qualitative data analyses revealed several major findings related to the development and implementation of the Bronx Health REACH program's nutrition activities. Several themes emerged from the data regarding the impact of multiple determinants on perpetuation of disparities in diabetes in the South Bronx, as well as key characteristics of the multilevel nutrition interventions that the Bronx Health REACH program initiated.

### Major Findings

The following are the key findings from this evaluation:

- Multiple individual, interpersonal, community, and broader environmental determinants are influencing the perpetuation of disparities in diabetes among African Americans/Blacks and Hispanics/Latinos in the South Bronx. These include lack of knowledge and skills related to nutrition and diabetes management, lack of power or control in patient-provider relationships, the economic burden of eating healthy, cultural influences on diet, racism and discrimination within the health care system, limited access to healthy foods in community organizations, targeted advertising of “junk food” in disadvantaged communities, corporate power, and the social production of diabetes. Many of these determinants were identified prior to developing the interventions; however, a few others were recognized by program staff and partners as a result of their activities.
- The Bronx Health REACH program addressed some of the health determinants by initiating multilevel (i.e., individual, interpersonal, organizational, and community) nutrition interventions. Most of the interventions were targeted at the institutional/ organizational level (e.g., faith-based organizations, schools, health care systems), and incorporated activities that

addressed individual, interpersonal, and policy change. Although, this evaluation did not focus on program impact, multiple outcomes occurred at the individual, organizational, and community level. For example, focus group and interview participants reported increased knowledge and skills, increased empowerment, and weight loss as individual outcomes. Policy and community changes included banning whole milk in elementary schools, faith-based organizations and local restaurants modifying their menus to include healthier meal options, and local bodegas providing low-fat milk and healthy snack items. Although participants reported positive changes, some felt that much more work had to be done before real reductions in health disparities could be seen.

- Many factors influenced the development and implementation of the Bronx Health REACH nutrition interventions. Key enablers included: 1) tailoring nutrition interventions that reflect the cultural and spiritual beliefs and traditions of the communities they serve, 2) commitment of program staff and partner leadership, 3) the program's institutional history within the community, 4) a unified vision and goals among the program and its partners, 5) the program's support and capacity building efforts, 6) the program's partnership building efforts, and 7) the ability of the program to adapt to partner and community needs and realities. Limited time and resources, conflicting interests, and resistance to changing attitudes and behaviors were all major barriers to the development and implementation of the program's nutrition interventions.
- Using community-based participatory approaches enabled the program to build support and capacity among its partners and other community members as well as to ensure alignment of community needs and program activities. These approaches allowed community members an opportunity to voice their concerns and actively engage in the development and

implementation of the nutrition interventions. The program also provided opportunities for community members to engage in civic and democratic practices, which may have increased a sense of empowerment and self-efficacy.

### **Evaluation Limitations**

This evaluation experienced the following limitations:

- This was a process evaluation and did not directly assess program impact. However, the qualitative data collected provided some evidence of the effects observed by coalition members and program staff.
- This evaluation did not use a mixed-method approach, but included only a qualitative research component. This method allowed for in-depth exploration of content. The program's nutrition interventions were not all equally represented in the focus groups and in-depth interviews. For example, only one restaurant owner was interviewed, and no bodega owners participated in either the focus groups or interviews. In addition, because of limited time and resources, the sample size for this evaluation was small, which limited the ability for redundancy and generalizability of the findings. However, the evaluation did include an in-depth, purposeful sample, which generated information-rich cases to adequately achieve our purpose.

### **Implications and Recommendations**

- Findings from this evaluation suggest that broadening the focus on traditional lifestyle interventions to address broader institutional and community changes may be more effective in influencing the reduction of disparities in diabetes. Therefore, an ecological approach

should be used to examine the relationships between these various factors, and multilevel strategies are encouraged. Incorporating an ecological perspective into the development and implementation of interventions that target various levels and settings of influence will allow for greater impact and sustainability of behaviors. Moreover, such ecological approaches may better address the broader, underlying determinants of disparities in risk and burden of diabetes among affected communities.

- Local communities are facing considerable barriers in their efforts to eliminate racial and ethnic health disparities. The findings from this evaluation clearly demonstrate the challenges that the Bronx Health REACH program confronted when implementing nutrition interventions within local businesses. In addition, the current state of schools in the South Bronx may preclude their ability to support disparities-related initiatives. Therefore, public health professionals and community leaders must find innovative ways to encourage and support local businesses and schools to collaborate in efforts to address health disparities. This approach may include using a “business” model in education campaigns and program/policy interventions, as well as providing stipends to small local businesses to provide and promote healthy food items. Community and program leaders also should work closely with local and state education agencies, school boards and staff, and parents to address institutional barriers within schools by initiating strategies that target policy change.
- Adopting a community-based participatory approach (CBPA) to developing and implementing nutrition interventions is critical to successfully eliminating racial and ethnic health disparities across our nation’s communities. CBPA not only encourages a deeper understanding of the sociocultural, geographical, and historical contexts of diabetes disparities but also promotes the importance of community participation in all aspects of a

program and its evaluation. CBPA is also a valuable way to increase community empowerment and capacity for social action by ensuring alignment of intervention goals with community needs and promoting civic engagement among community members. Faith-based organizations such as African American/Black and Latino churches, can serve as powerful advocates and mobilizers that can reach beyond their walls to raise community consciousness and to foster community and civic engagement through civil rights and social justice ideology.

- Incorporating nontraditional public health partners who represent multiple sectors and settings can help to leverage resources and better address the various individual and environmental health determinants that effect disparities in the community. Therefore, community-based organizations should consider reaching out to a range of “grassroots” (e.g., community organizations) and “grasstops” (e.g., government, business leaders, other institutional leaders) as possible partners to help mitigate institutional barriers, foster program sustainability, and create greater public health impact. In addition, conducting assessments of the potential partners’ assets, resources, and weaknesses will help program staff to best organize the partnership and leverage additional resources to develop, implement, and sustain interventions.
- Encouraging partners to seek and obtain multiple sources of funding, as well as offering leadership and skills-based trainings will help to increase community capacity and sustainability. For example, integrating a competitive process for mini-grants or a “ramping down” approach (i.e., gradual decrease in amount per year) may help to provide initial support for the activities but also maximize opportunities for learning through shared leadership and accountability. Funded organizations also can promote capacity building by

providing skills-based and leadership trainings (e.g., in grant writing). By diversifying funding sources to support program activities, community-based organizations can increase program maintenance and help to sustain outcomes.

- While increasing community engagement and capacity to address disparities is essential, the glaring power imbalances between local communities and corporate or political entities cannot be dismissed, nor can it be effectively addressed by communities alone. By suggesting that solutions can be generated at the local level alone places unrealistic goals and an overwhelming burden on already disadvantaged communities. Funding from federal and state public health agencies for community-based projects can help to transform these power imbalances by creating partnerships with various institutional ‘Goliaths’ to promote participatory public health efforts. Agencies also can work together to address macro-level determinants that affect health disparities.
- The Bronx Health REACH program encountered a range of internal and external influences that required it to be flexible and adapt its their efforts appropriately. While a clear and well-articulated plan is essential to successfully implementing an intervention and having a measurable impact on the target population, community-based organizations also must be flexible enough to adapt to the culture and needs of the community. Cultural tailoring should go beyond solely translating materials into different languages. It also should focus on incorporating cultural and spiritual beliefs, values, and traditions into the activities. Tailoring interventions to correspond to the cultural and spiritual beliefs and traditions of the participants is essential in adequately addressing the needs and realities of community members, and this approach will ensure greater responsiveness and potential impact.

- Further qualitative and quantitative research is needed to examine the sociocultural and historical contexts that perpetuate disparities. Researchers also need to conduct mixed-method evaluations and disseminate findings on the effectiveness of other community-based participatory interventions. As more communities are attempting to address health disparities through multilevel interventions, intermediate outcomes that appropriately monitor policy and community change must be developed. In addition, policy and economic analyses of the impact of multiple health determinants on disparities also would provide important information for public health professionals and community leaders to guide their interventions.

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## **APPENDIX A**

## Qualitative Protocol

### *When to recruit and how:*

Upon confirmation of participant list, the delegated Bronx Health REACH program staff member (key point-of-contact) will be responsible for asking individuals if they are interested in participating in a focus group or in-depth interview. The script below will be used by the staff member to describe the project and data collection process when recruiting participants. This information will be included in a memo to be sent to all participants, as well as reiterated to the participant at the time of the focus group or interview (see introductory script in focus group and in-depth interview moderator guides).

### *Script to use for recruiting participants:*

#### Describe the purpose for conducting focus group/interview:

We are really interested in conducting [state either “focus groups” or “interviews”] with those that have played an integral role in the [state the specific Nutrition and Fitness Initiative activity]. The purpose of this project is to help us better understanding what you have done to improve nutrition in your community. This information will help the Bronx Health REACH program better understand what types of interventions they have implemented and possible gaps in program service that may need to be addressed. This information may help to determine how the program can be modified or improved in order to more effectively reduce disparities in the community. As well, this information will help other programs determine what types of activities they can implement to improve nutrition in their communities.

#### Describe the questions that will be asked to them during the focus group/interview:

The questions that you will be asked will focus on your experiences and thoughts regarding the activities focusing on nutrition, which may include asking about the need for these activities, the design and implementation of the activities, external and internal influences, and sustainability issues related to the activities.

#### Describe the data collection process to participant.

Amanda Navarro, an external contractor working with the Centers for Disease Control and Prevention, will conduct the focus groups and interviews. A staff member from the Bronx Health REACH program will be contacting you to find out your availability in participating in the focus group/interview.

#### Focus Groups:

The focus group will last about an hour and a half to two hours. In appreciation for your time and participation we are providing dinner for you. We will be recording this discussion. The tape is to make sure that we get everything that is said here today. Only Amanda and key project staff will have access to the tapes. Your name or any identifying information will not be used at any time to connect you to this discussion. A specific code will be assigned to you and will be used on all transcripts, tapes and guides. All that is said here today is confidential, and only the

Amanda and key program staff will know who you are. Because we will need your full attention during the interview, children cannot be present. No childcare will be provided.

### **In-depth Interviews**

The interviews will last between 60-90 minutes. In appreciation for your time and participation we are providing dinner for you. We will be recording this discussion. The tape is to make sure that we get everything that is said here today. Only Amanda and key project staff will have access to the tapes. Your name or any identifying information will not be used at any time to connect you to this discussion. A specific code will be assigned to you and will be used on all transcripts, tapes and guides. All that is said here today is confidential, and only the Amanda and key program staff will know who you are. Because we will need your full attention during the interview, children cannot be present. No childcare will be provided.

### **Prior to Focus Group or In-depth Interview**

Review the Facilitator Guide (focus group or in-depth interview)

Confirm interview or focus group appointment with the participant(s) and with the Bronx Health REACH program staff

Gather materials:

Copies of appropriate informed consents (enough for all participants and yourself)

Facilitator Guide

Notepad and pen

Research phone number (enough for all participants)

2 tape recorders

2 adapters

4 batteries

4 audio tapes

Focus group only:

Use blank name tags or tent cards (enough for all participants)

Order refreshments/snacks or food (if funding provided)

*When you arrive:*

Tell program staff who you are, your purpose, and where you need to be directed. Make sure program staff know:

That you're expecting an interview participant or focus group participants, and  
Where to direct participants.

Arrange the space. Aim to set-up a comfortable conversational space. Move things around, play with lighting. NEVER sit on the “professional” side of a desk apart from the participant. Avoid reinforcing power imbalances with physical positioning.

Focus group: arrange chairs in a circle, preferably around a table.

Interviews: arrange two chairs facing each other or slightly angled inwards. A small table in the middle, or slightly off to the side for the recording equipment is ideal.

Prior to starting the discussion, the facilitator will state the information included in the introductory script of the Moderator Guide to the participant(s). The facilitator will distribute copies of the informed consent form for the participants to read and sign. Each participant will sign 2 copies of the form. One copy will be collected by the facilitator; the other copy is for the participant to keep for their files. Any questions or concerns regarding the form will be addressed by the facilitator at this time.

Set-up and test both sets of recording equipment to make sure you will record interviews or focus groups.

*After you finish data collection:*

Labeling. Make sure all materials are labeled before you return to the office.

Label informed consents and receipts with date and participant id#.

Label tapes and notes with following information:

Bronx Health REACH Nutrition Project  
Focus Group/Interview  
Participant ID # (For interview only)  
Date  
Time  
Location

Interview field notes & transcriptions.

Type field notes as soon as possible after the interview.

Make sure field notes include the date, the participant id#, your name

Transcribe interviews

Focus group notes.

Type field notes from focus groups

Make sure these notes include the date, group #, participant id#s, your name

Next, type the questions in the Moderators Guide, followed by all relevant participant responses. Use the notes taken at the focus group.

### **Transcribe focus groups**

Note, responses may have been provided at different times during the focus group. By question, list responses, indicate whether said by one or more persons (a couple, most, all), whether there was consensus from the group or lack of consensus. For each question, write one or two summary sentences.

After answering the questions, type up other interesting information under a heading or label that represents the major theme of the discussion.

## **APPENDIX B**

## Focus Group Moderator Guide

\*\*Review Informed Consent form with participants

*Script* (to be stated prior to asking questions)

Hi, thank you for coming to our discussion today. My name is \_\_\_\_\_, and I work with the Centers for Disease Control and Prevention. I will be the facilitator for our discussion today. We are here today to hear from you about the various activities that you are involved with the Bronx Health REACH program's Nutrition and Fitness Initiative. The purpose of this project is to help us better understanding what you have done to improve nutrition in your community/congregation. This information will help the Bronx Health REACH program better understand the work you have done around nutrition and possible gaps that may need to be addressed. This information may help to determine how this work can be modified or improved in order to more effectively reduce health disparities in the community/congregation. As well, this information will help other programs determine what types of activities they can implement to improve nutrition in their communities/congregations.

This focus group will last about two hours. We really appreciate your time and value your input. Feel free to help yourself to the food provided. [for faith-based groups only: You will also receive a \$25 stipend]. I will be the one to guide the discussion and make sure everyone has a chance to speak. I will also be recording this discussion. The tape is to make sure that we get everything that is said here today. I will not share the tape with anyone outside of this project and will not be using your name or any identifying information to connect you to this talk. All that is said here today is confidential, and only the project staff will know who you are.

Ground Rules:

There are no right or wrong answers, and it is okay for you to disagree.

Respect each others' opinions.

One person speak at a time.

What is said here today will remain here; this discussion is confidential.

I encourage all of you to speak because I know that each of you have something important to contribute.

Does everyone agree? Okay let's begin.



## **Needs for a Program**

1. How big of a problem is nutrition in the Bronx? Why or why not?
2. What do you feel are other problems?  
Probe: What about problems related to diabetes and heart disease?
3. Have you heard of the term “racial and ethnic health disparities”?  
Probe: If yes, what do you think it means?  
If no, state definition of racial and ethnic health disparities
4. Do you think nutrition is or is related to any major health disparity in this community?  
Probe: Who in the Bronx do you think are most affected? How? Why?  
Probe: Why do you think they exist?
5. What perspectives, values and/or beliefs do you think needs to be considered when trying to improve nutrition in the community? How? Why?  
Probe: Do you feel cultural issues play into this? How?

## **Type of Activity**

6. What work you are doing in the community/church around nutrition with the Bronx Health REACH program?
7. What messages are you giving out about nutrition and disparities when you are doing your work?
8. What are your role and responsibilities in the work around nutrition?
9. Who is affected by your work around nutrition?
10. Is there someone that you feel has been influential or has provided leadership in the work that you are doing around nutrition? Someone you see as an advocate or leader?  
Probe: What is his/her role?  
Probe: What about him/her (qualities/characteristics) makes him/her a leader?  
Probe: How well do you think he/she is supported by the program or organization?
11. How did culture play into the work you are doing around nutrition? Why or why not?

### ***Activity Goals & Perceived Effectiveness***

12. Do you feel that the mission or goal of your organization is in tune with the nutrition work you are doing with Bronx Health REACH?

Probe: If yes, how so?

If no, how is it different?

Probe: Do you feel the goals and approaches of the nutrition work you are doing is in tune with what the community needs or wants?

### ***Program Involvement***

13. How were you involved in developing and/or participating in the work that Bronx Health REACH is doing around nutrition?

Probe: Who else was involved?

Probe: What were you involved in?

14. Do you know of any training opportunities that were offered to REACH Coalition members and/or others involved in the nutrition work? How?

### ***External & Internal Influences***

15. What would you say helped you implement the work you are doing around nutrition? How did it help?

16. What do you say hindered (or made it difficult) for you to implement the work you are doing? How did it make it difficult?

Probe: Were you able to overcome these barriers? How?

### ***Closing Questions***

17. Do you think that your work around nutrition is helping to reduce disparities and improve the health of people in the Bronx [in the congregation]? Why or why not? How?

18. Is there anything you think could change in order to sustain and improve your work? Why or why not? How?

## **In-Depth Interview Moderator Guide**

**\*\*Review Informed Consent form with participants**

*Script* (to be stated prior to asking questions)

Hi, thank you for participating in this interview today. My name is \_\_\_\_\_, and I work with the Centers for Disease Control and Prevention. I really appreciate you taking time from your busy schedule today to talk with me. I will be the facilitator for our interview today. We are here today to hear from you about the various activities that you are involved with the Bronx Health REACH program's Nutrition and Fitness Initiative. The purpose of this project is to help us better understanding what you have done to improve nutrition in your community/congregation. This information will help the Bronx Health REACH program better understand the work you have done around nutrition and possible gaps that may need to be addressed. This information may help to determine how this work can be modified or improved in order to more effectively reduce health disparities in the community/congregation. As well, this information will help other programs determine what types of activities they can implement to improve nutrition in their communities/congregations.

This interview will last about two hours. [For restaurant/bodega participants only: A \$25 stipend will be given to you in appreciation for your time and participation.] I will be the one to guide the interview and I will also be recording this discussion. The tape is to make sure that we get everything that is said here today. I will not share the tape with anyone outside of this project and will not be using your name or any identifying information to connect you to this talk. All that is said here today is confidential, and only the project staff will know who you are.

Ground Rules:

There are no right or wrong answers, and it is okay for you to disagree.  
What is said here today will remain here; this discussion is confidential.

Does everyone agree? Okay let's begin.

### *Needs for a Program*

1. Have you heard of the term “racial and ethnic health disparities”?  
Probe: If yes, what do you think it means?  
If no, state definition of racial and ethnic health disparities
2. Do you think nutrition is or is related to any major health disparity in this community?  
Probe: Who in the Bronx do you think are most affected? How? Why?  
Probe: Why do you think they exist?
3. What type of programs or services do you feel are needed most in your community? Why?
4. What perspectives, values and/or beliefs do you think need to be considered when trying to improve nutrition in the community? How? Why?  
Probe: Do you feel cultural issues play into this? How?

### *Type of Activity*

5. What work you are doing in the community/church around nutrition with the Bronx Health REACH program?
6. What messages are you giving out about nutrition and disparities when you are doing your work?
7. What are your role and responsibilities in the work around nutrition?
8. Who is affected by your work around nutrition?
9. Is there someone that you feel has been influential or has provided leadership in the work that you are doing around nutrition?  
Probe: What is his/her role?  
Probe: What about him/her (qualities/characteristics) makes him/her a leader?  
Probe: How well do you think he/she is supported by the program or organization?
10. How did culture play into the work you are doing around nutrition? Why or why not?
11. Do you feel the needs of the community are driving this work? Why or why not? How?

### ***Activity Goals & Perceived Effectiveness***

12. Do you feel that the mission or goal of your organization is in tune with the nutrition work you are doing with Bronx Health REACH?

Probe: If yes, how so?

If no, how is it different?

Do you feel the goals and approaches of the nutrition work you are doing is in tune with what the community needs or wants?

13. In general, do you think it's realistic to continue this work in light of the local socioeconomic and political environment? Why or why not? How?

### ***Program Involvement***

14. How were you involved in developing and/or participating in the work that Bronx Health REACH is doing around nutrition?

Probe: What were you involved in?

Probe: Who else was involved?

15. Is this activity linked to other existing programs? How?

16. Do you feel that these other organizations involved in this nutrition work provide a strong organizational base for the program? [Institutional strength refers to mature, stable organizations with strong leadership and relatively high skill levels]

17. Do these individuals or organizations also act as a source of funds for this activity? What proportion of funds comes from each source?

18. Are local resources being used for this activity? Why or why not? How?

19. Have you ever thought of other sources of funds or resources to maintain this nutrition work? What have you done?

20. Do you know of any training opportunities that were offered to REACH Coalition members and/or others involved in the nutrition work? How?

### ***External & Internal Influences***

21. What would you say helped you implement the work you are doing around nutrition? How did it help?

22. What do you say hindered (or made it difficult) for you to implement the work you are doing? How did it make it difficult?

Probe: Were you able to overcome these barriers? How?

### *Closing Questions*

23. Do you think that your work around nutrition is helping to reduce disparities and improve the health of people in the Bronx [in the congregation]? Why or why not? How?

24. Is there anything you think could change in order to sustain and improve your work? Why or why not? How?

## **In-Depth Interview Moderator Guide Spanish**

*\*\*Review Informed Consent form with participants*

Script (to be stated prior to asking questions)

Hola, gracias por participar en esta entrevista. Me llamo \_\_\_\_\_, y trabajo en los Centros para el Control y Prevención de Enfermedades. Les agradezco muchísimo por tomar un rato de sus actividades para conversar conmigo. Yo seré la moderadora de nuestra entrevista. Estoy aquí para que me cuente sobre las diversas actividades en que está involucrada con el programa de Iniciativa de Nutrición y Estado Físico del Bronx Health REACH. El objetivo de este proyecto es ayudarnos a entender mejor lo que ustedes han hecho para mejorar la nutrición en su comunidad/congregación. Esta información ayudará a que en el programa del Bronx Health REACH entienda mejor lo que usted ha hecho sobre la nutrición y de posibles brechas que aún deben ser superadas. Esta información podrá ayudarnos a determinar cómo se puede modificar o mejorar este trabajo a fin de reducir en forma más efectiva las diferencias en salud en la comunidad/congregación. Esta información también ayudará a que otros programas determinen qué tipos de actividades se pueden implementar para mejorar la nutrición en sus comunidades/congregaciones.

La entrevista durará unas dos horas. Le entregaré \$25 como compensación por su tiempo y participación. Yo seré quién llevará la entrevista; también lo voy a grabar. La cinta de grabación es para asegurar de que registramos todo lo que se diga aquí hoy. No compartiré la cinta con nadie de fuera de este proyecto y no utilizaré sus nombres ni ninguna información con identificación que pueda relacionarles con esta conversación. Todo lo que se diga aquí será confidencial, y sólo el personal del proyecto sabrá quién es usted.

### Reglas Básicas

- No hay contestaciones correctas o incorrectas
- Lo que se diga aquí permanecerá aquí; esta conversación es confidencial

¿Lista? ¡Okay, empecemos!

### *Need for a Program*

1. ¿Han oído la frase “Diferencias raciales y étnicas en la salud”?  
(If yes), ¿Qué creen que significa?  
(If no, state definition of racial and ethnic health disparities): Son las diferencias en la salud de personas de distintas razas u orígenes étnicos
2. ¿Cree usted que la nutrición es o está relacionada con alguna importante diferencia en salud en esta comunidad?  
Probe: ¿Quién cree que están más afectados en el Bronx? ¿Cómo?  
¿Por qué?  
Probe: ¿Por qué cree que existen estas diferencias?
3. ¿Qué tipos de programas o servicios cree que se necesitan más en su comunidad? ¿Por qué?
4. ¿Cree usted que se deben considerar las preocupaciones de la comunidad Latina cuando tratando de mejorar la nutrición en el Bronx? ¿Cómo?

### *Type of Activity*

5. ¿Qué trabajo acerca de nutrición está haciendo en la comunidad/iglesia con el programa Bronx Health REACH?
6. ¿Qué mensajes esta dando sobre nutrición y diferencias de salud cuando esta haciendo este trabajo?
7. ¿A quiénes atienden? ¿Quiénes van a su restaurante /bodega?
8. ¿Hay alguien quien usted cree ha ejercido influencia o ha dado dirección o ayuda en el trabajo que usted ha hecho en relación a nutrición?  
Probe: ¿Qué es su papel en este trabajo?  
Probe: ¿Qué cualidades o características tiene esta persona para que le consideren líder?
9. ¿Qué papel tiene el aspecto cultural (la cultura) en el trabajo que usted esta haciendo en relación a nutrición? ¿Por qué? or ¿Por qué no? ¿Cómo?
10. ¿Siente usted que las necesidades de la comunidad esta manejando (empujando) este trabajo?

### *Program Involvement*

11. ¿Cómo se involucró en desarrollar y/o en participar en el trabajo que Bronx Health REACH ha hecho en relación a nutrición?  
Probe: ¿Quién se aproximó a ustedes para que hacer este trabajo?



Probe: ¿Quién más estuvo involucrado?

*External & Internal Influences*

12. ¿Qué diría usted que le ayudó a implementar este trabajo en relación a nutrición? ¿Cómo ayudó?
13. ¿Qué cree que lo hizo difícil para implementar este trabajo? ¿Cómo les dificultaba?  
Probe: ¿Pudo vencer estos obstáculos? ¿Cómo?

*Closing Questions*

14. ¿Cree usted que su trabajo relativa a nutrición está ayudando a reducir diferencias y a mejorar la salud de la gente del Bronx [de la congregación]? ¿Por qué? or ¿Por qué no? ¿Cómo?
15. ¿Hay algo que cree que se podría cambiar para sostener o mejorar su trabajo? ¿Por qué? or ¿Por qué no? ¿Cómo?

## **APPENDIX C**

## Master Codebook

Code Name	Definition/Terms
Access (Health care)	Ability to obtain or availability of health care in the community, includes choice and/or quality of health care; perceived need or suggestions for providing quality health care in the community
Access (Nutrition)	Ability to obtain or availability of healthy foods (e.g., fruits, vegetables, 1% milk) in the community, includes choice and/or quality of healthy foods; perceived need or suggestions for providing healthy foods in the community
Access (Physical Activity)	Ability to use or availability of recreational spaces; referring to natural or built environment; perceived need or suggestions for providing recreational spaces in the community
Affected population	Groups of people perceived to be affected or impacted by disparities
Beliefs & Attitudes	Personal; organizational; rights and entitlement; perceived social or personal responsibility
Community	Perceptions or beliefs of what “community” (a group sharing common characteristics) means; definitions; characteristics of the environments (e.g., political, social, economic); other characteristics (e.g., involvement, capacity, conflict, needs, values, history, awareness, voting, political involvement); voice; realities of living/working/playing in communities
Contributing Factors	Risk factors or any other factors (e.g., discrimination, racism) perceived to contribute or influence disparities; lack of knowledge/understanding of problem; environmental barriers
Culture	Values, beliefs, perceptions based upon various cultures (e.g., American; racial and ethnic); ethical or moral values or beliefs; faith/spirituality
Disparities	All types of disparities (racial and ethnic, economic, health care, information); definitions; statistics; perceived facts
Ecological/Social Determinants of Health	Holistic approach/perspective; recognition of various determinants or levels of the model; recognition of links between determinants

Faith	Program activities related to faith-based or church-based; Characteristics related to faith/spirituality (e.g., personal responsibility, motivation, messages, rights and entitlement, action)
Infrastructure	Basic, underlying framework or features of a system or community; fundamental facilities and systems serving a community or organization; distribution and importation of services and goods in a community
Interventions	Specific activities developed and/or implemented by Bronx Health REACH or other partners (e.g., bodegas, restaurants, farmers' markets, schools, churches); education initiatives (e.g. health education or behavior change activities); coalition building; enablers and barriers; evaluation/assessment; change agent; roles and responsibilities
Marketing	Advertising or "selling" of goods (e.g., healthy foods vs. unhealthy foods) by businesses or lack thereof
Messages	Statements or information conveyed to various audiences related to nutrition or disparities or lack thereof
Motivation	Feeling or reason for action or gives purpose or direction to a behavior or lack thereof; cue for action;
Movement	Progressive development of events towards a common goal; expansion of support or action within community; spread
Outcomes/Impact	Perceived/actual results or effects from program activities (e.g., policy change); empowerment
Partner Characteristics/Roles	Characteristics and roles/responsibilities of partners (e.g., public health)
Partnerships	Internal and external collaborations made between groups or settings (e.g., businesses, public health, schools); networks; alignment of goals; trust; characteristics of success/failure
Program	General description of characteristics of Bronx Health REACH; activities (e.g., program history, program champion; support; goals/mission; training; reach; barriers/enablers; recommendations); roles and responsibilities; satisfaction

Program Champion	Perceived leader or advocate of the Bronx Health REACH program activities; characteristics of
Resources	Human or financial sources of support/aid to the program; barriers
Sustainability	Characteristics of maintenance of program activities (e.g., internal/external influences, program champion, resources, training, perceived success)
Theory	Implicit statements referring to behavioral theories or theory components (e.g. SCT, TM, theory of planned behavior, theory of reasoned action, CBPR)
Us vs. Them	Comparison between groups (e.g., geographic, racial and ethnic); power dynamics

## **APPENDIX D**

### Bronx Health REACH Nutrition Activities & Action Steps

Socioecological Level	Nutrition Activities	Action Steps
Individual	Client-Based Fitness & Nutrition Program	<ul style="list-style-type: none"> <li>- Provide free fitness classes</li> <li>- Provide one-on-one nutrition counseling</li> <li>- Nutrition education workshops</li> </ul>
Institutional/ Organizational	Faith-Based Culinary Initiative	<ul style="list-style-type: none"> <li>- Conduct survey and focus groups</li> <li>- Train congregants as faith-based nutrition coordinators</li> <li>- Develop a cookbook for congregants</li> <li>- Provide information through Sunday school education</li> <li>- Conduct cooking classes and diabetes/nutrition workshops for nutrition coordinators</li> <li>- Distribute bilingual education materials (brochures, pamphlets, flyers) on healthy eating and diabetes</li> <li>- Work with multiple church ministries to institutionalize nutrition changes (i.e., promote healthy food preparation, decrease serving size)</li> <li>- Modify church event menus by providing healthy foods or healthier versions of traditional cultural dishes</li> <li>- Change portion sizes of foods provided at church events</li> <li>- Change food pantry options serving families in need</li> <li>- Conduct one-on-one nutrition counseling with interested or at-risk individuals</li> <li>- Deliver nutritional messages from the pulpit</li> </ul>
	Faith-Based Nutrition & Fitness Program	<ul style="list-style-type: none"> <li>- Conduct 12-week nutrition, physical activity, and spiritual intervention in faith-based organizations (includes individual goal planning and buddy system)</li> <li>- Train-the-trainer component</li> </ul>

	<p><b>School-Based Nutrition Initiative</b></p>	<ul style="list-style-type: none"> <li>- Conduct school nutrition assessment using the CDC School Health Index</li> <li>- Convene school nutrition committee (school staff, parents, principals, assistant principals) and develop nutrition workplan</li> <li>- Conduct nutrition workshops with teachers and students</li> <li>- Implement and disseminate healthy snacks list in schools (English &amp; Spanish)</li> <li>- Incorporate CookShop curriculum (nutrition education for children)</li> <li>- Change milk policy in schools to ban/reduce quantity of whole and sweetened milk to 1% milk</li> <li>- Collaborate with local primary care services</li> </ul>
	<p><b>After-School Nutrition Program</b></p>	<ul style="list-style-type: none"> <li>- Conduct nutritional classes among after-school children, including field trips to local grocery stores, to promote healthy food options</li> <li>- Conduct parent workshops</li> <li>- Provide healthy foods during after-school programs</li> </ul>
<p><b>Community</b></p>	<p><b>Restaurant Nutrition Initiative</b></p>	<ul style="list-style-type: none"> <li>- Conduct observations of menu items, food preparation, and menu selections</li> <li>- Change menus to provide healthier dishes</li> <li>- Change cooking approaches</li> <li>- Promote healthier menu options at participating restaurants through brochures and media campaigns</li> </ul>
	<p><b>Bodega/Grocer Initiative</b></p>	<ul style="list-style-type: none"> <li>- Conduct survey of products offered and promoted by local bodegas</li> <li>- Conduct milk campaign to increase 1% milk sales in bodegas</li> <li>- Promote healthier snacks by displaying promotional materials and re-arranging items to promote purchase of healthy food items</li> </ul>