

A Review of Psychosocial Factors and Systems-Level Interventions

A Closer Look at African American Men and High Blood Pressure Control

U.S. Department of Health and Human Services

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National Center for Chronic Disease Prevention and Health Promotion





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The photographs used in this publication are for illustration purposes only. They show African American men from various age groups. They are not intended to depict people who have high blood pressure or who had a heart attack or stroke.

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Top 10 Considerations for State Programs When Planning Systems-Level Interventions for African American Men to Control Blood Pressure

Because public health programs share the Division for Heart Disease and Stroke Prevention's mission of "...eliminating disparities in the burden of heart disease and stroke," this document provides a tool that can be used to develop or fund systems-level interventions, particularly addressing African American men and high blood pressure control. Below is a list of considerations as public health programs plan, develop, and implement systems-level interventions for this underserved population:

1. Review and become familiar with the national prevalence data on hypertension in African American men, as well as factors related to awareness, treatment, and control. Gather and analyze state and local data on this population; determine priority groups or localities if appropriate.
2. Become familiar with the psychosocial factors (e.g., effects of racism, social support, access to care) related to high blood pressure control among African American men.
3. Identify and share data with stakeholders that public health programs might partner with when developing interventions related to high blood pressure control in African American men.
4. Collaborate with non-traditional partners (e.g., faith-based organizations, sororities and fraternities, barbershops) to develop and implement interventions for this population.
5. Before implementing an intervention, examine the history and politics of the community. Be sure to include members of the community during the initial planning stages of an intervention or activity. Not only does this build trust, but it can also increase the chances that the intervention or activity will be successful.
6. Identify settings or mechanisms for possible intervention, which may include conducting community needs assessments or environmental scans of potential sites and how the priority group could best be reached.
7. Identify reviewed projects and interventions that have been evaluated for possible pilot programs; determine characteristics of programs that are most compatible with potential pilot program setting.
8. Consider reviewing information on similar interventions and programs dealing with men's health concerns to discover promising or best practices regardless of topic area, such as prostate cancer or diabetes.
9. Review the *Lessons Learned* from interviewed programs and *Key Findings* from literature reviews to use as tools to develop interventions or similar activities for your target population.
10. Develop evaluation plans for proposed interventions.

Recommendations

The information gathered from literature reviews, key informant interviews, and the expert panel provides a comprehensive picture into the complexities of hypertension awareness, treatment, and control as it pertains to African American men. On the basis of the data presented, it is clear that high blood pressure disproportionately affects African American men. Because the related factors are multi-dimensional—ranging from perceived racism to access to care—public health programs should take these different factors into consideration when developing and implementing a systems-level intervention.

Below are a set of recommendations created to assist in guiding public health programs as they create systems-level interventions to control high blood pressure among African American men:

Recommendation 1:

Develop an evaluation plan during the initial stages of developing a systems-level intervention.

Several interventions found in the peer-reviewed literature did not have evaluation components. Evaluation is crucial in determining the effectiveness of an intervention. Thinking about evaluation at the beginning can also be useful to ensure that the intervention is comprehensive.

Recommendation 2:

Focus more research efforts on the priority population.

On the basis of our search of the literature, systems-level research specific to African American men and blood pressure control is scarce. Articles mainly focused on African Americans as a whole. Suggested areas of research include quality of care, access to care, social networks, spirituality or religion, racism, and knowledge, beliefs, and attitudes about high blood pressure.

Recommendation 3:

Collaborate with nontraditional partners to develop and implement systems-level interventions.

Chapter 5 contains a list of health resources, both traditional and non-traditional, that public health programs can partner with as they develop and implement interventions.

Nontraditional partners such as faith-based organizations, fraternities, and barbershops are great entry points into communities and are eager to partner with state health departments and public health programs to make a difference in their respective communities. Including partners in the planning of the intervention and offering incentives can increase the likelihood of the success of the intervention.

Recommendation 4:

Create opportunities to educate providers on the psychosocial and cultural nuances associated with this priority population.

Conferences, seminars, e-mail messages, and the like can be developed to educate providers on the psychosocial and cultural factors that are more likely to be affecting African American men. By providing those opportunities, public health programs can be instrumental in improving the quality of care for this population.

Recommendation 5:

Formulate partnerships with programs focused on control and treatment of other disease conditions.

Collaborate with other programs such as cancer, diabetes, and obesity, to increase the effectiveness of your efforts and to combine resources that may be limited.

Other programs may have insight that can assist your intervention.





Preface

Chapter 1: Introduction

This document highlights resources and systems-level interventions that focus on high blood pressure control among African American men. The information in this book will provide valuable guidance to state and local government agencies, health care organizations, nonprofit organizations, and other decision makers that work to facilitate positive changes in their states and communities. A *systems-level intervention* is defined as a change in policy, legislation, training, or environmental supports that impacts individual and community-level outcomes. In this book you will find information on lessons learned, considerations, and recommendations for public health programs, in hopes that the information will not only increase the number of systems-level interventions for African American men and blood pressure control, but also provide answers to questions that exist for current interventions. The book summarizes what other public health programs are engaged in and provides the contact information of those programs to support efforts of cross-program learning. Systems-level interventions can focus on organizations, providers, patients, and the health care system as a whole, and also includes media campaigns.

The Centers for Disease Control and Prevention's Division for Heart Disease and Stroke Prevention contracted with RTI International to gather information on systems-level interventions through input from an expert panel, key informant interviews conducted with individuals implementing interventions, and from a search of the peer-reviewed and non-peer-reviewed literature. The review also summarizes data on the burden of high blood pressure and discusses the psychosocial factors associated with having the condition and accessing treatment. Lastly, the review identifies resources on men's health that may be useful when considering the implementation of a new program or expanding an existing one.

Chapter 2: The Burden of High Blood Pressure among African American Men

African American men are more likely to have high blood pressure than white, Hispanic overall, or Mexican American men¹ and more likely to be identified by their physician as having high blood pressure.^{2–6} This difference has consistently remained over time, from approximately 1988 through 2006 (the most recent data available).

For example, from 2003 to 2006, 27% of African American men reported having high blood pressure, compared to 17% of white men and 15% of Mexican American men.¹

Among African American men with high blood pressure, awareness that they have the condition, treatment for the condition (taking medication), and control of the condition (systolic blood pressure of less than 140 mm Hg and a diastolic blood pressure of less than 90 mm Hg) has been increasing over time.⁷ Still, during the 1999 to 2004 period, while more than half of the group was aware that they had the condition, 56% were receiving medications, and only 30% had their high blood pressure under control. A significant predictor of greater awareness, treatment, and control of high blood pressure is older age.⁸

In contrast to relative trends in high blood pressure rates, the percentage of African American men with heart disease was lower than that of white men, as well as African American women, from 2002 to 2006.^{2–6} Still, the percentage of African American men who had a stroke was higher than that of white and Hispanic men throughout the period.

While death rates from hypertension (including essential hypertension, hypertensive heart disease, and hypertensive renal disease), increased among African American men and women and white men from 1999 to 2004, rates among both African American men and women were more than double those of white men throughout the period. African American men also experienced the largest percentage point increase of the three groups during this period; their death rates from hypertension increased by 4.5 percentage points. African American men had higher death rates than white men related to essential hypertension and hypertensive heart disease.⁹

Death rates related to heart disease and cerebrovascular disease declined for African American men and women as well as for white men from 1999 to 2005, but rates remained the highest among African American men.¹

Chapter 3: Psychosocial Aspects of Blood Pressure Control among African American Men

A literature review was conducted to examine the results from prior studies concerning the effects of racism, attitudes towards hypertension, access to care, access to health insurance, quality of care, socioeconomic status, and comorbidities on hypertension among African American men.

Several studies found an association between racism and higher blood pressure levels in African American men.^{10–15} Perceived racism was found to contribute to stress and low self-esteem, which can ultimately negatively affect blood pressure levels.^{10,11,12,14} John Henryism is described as behaviors used to deal with psychosocial and environmental stressors that are often exhibited by African Americans determined to succeed in the face of obstacles.^{16,17} Among African American workers of lower socioeconomic status, those with high John Henryism were found to have higher blood pressure levels than those with low John Henryism.¹⁸

Knowledge, beliefs, and attitudes about hypertension among African Americans can affect health behaviors, perception of susceptibility to hypertension, and adherence to treatment.¹⁹ Those who are older, of lower socioeconomic status, or of lower educational attainment are more likely to have myths about hypertension.²⁰

Lower use of medical care services and medications among African Americans compared to whites has been found to be related to mistrust of the medical system.^{21–23} This belief system can also negatively affect communication between providers and African American patients.^{22,24,25} Lack of cultural competence among health care providers also contributes to poor communication between providers and their African American patients.²⁶

Health insurance coverage can influence the successful control of hypertension. On the basis of 2006 Current Population Survey data, African American males were more likely to be uninsured than white males (23% compared to 17%) and less likely to have private insurance coverage (54% compared to 70%).²⁷ In African Americans, the successful control of hypertension was found to be significantly related to health insurance coverage.²⁸ Lack of prescription drug coverage and access to hypertensive drugs may play a role in this trend.²⁹

Quality care helps to ensure that hypertensive patients adhere to their medication regimen. Seeing the same provider has been found to be positively correlated to successful hypertension control. Hypertensive African Americans are significantly less likely than hypertensive whites to consistently see the same provider.²⁸ Elements of quality care that are important for treating African Americans with hypertension include establishing good doctor-patient communication and trust,^{19,30} addressing possible racial disparities,³¹ and creating patient-centered interventions.³² African American patients with African American physicians were more likely than those non-African American physicians to rate their physicians as excellent.³³

While socioeconomic status does not explain all of the racial differences in hypertension rates, low socioeconomic status is a stronger predictor of hypertension among African Americans than whites.^{34,35} Low socioeconomic status coupled with lack of health insurance can make it particularly difficult for this population to obtain adequate health care, and therefore African American men are often diagnosed with diseases at later stages or after a serious event.^{36–38} Those who reside in racially isolated neighborhoods are especially at risk for poor health.³⁹

Obesity has been strongly and positively linked to high blood pressure.^{40–48} Approximately two-thirds of African American men are overweight and, of these, close to half are obese.⁴⁹ In the African American community, cultural dietary patterns and fear of social stigmatization have been found to deter significant changes in diet or exercise lifestyle modification.^{50–54}

Chapter 4: Programs with Systems-Level Interventions

We interviewed key informants from nine programs that provide systems-level interventions to address high blood pressure control in African American men. The purpose of the interviews was to provide stakeholders with information on successful practices, which were determined by the program. Information obtained from interviews was supplemented by program evaluations, Web sites, and journal articles. Programs were selected on the basis of the services they provide. We did not conduct an independent evaluation of program quality.

Programs were located across seven states and varied in longevity, ranging from 1 to 34 years. Interventions included blood pressure screenings and monitoring, referrals to providers, patient education and media campaigns, patient outreach and follow-up, and trainings for community members and professionals. Examples of successful, sustainable practices found among these programs included implementing interventions in a venue primarily serving African American men (e.g., barbershops), forming partnerships with community organizations, using the peer-to-peer approach to reach out to the target population, and ensuring that program materials are presented in a culturally competent manner.

This chapter also presents summaries of 11 systems-level interventions found in peer reviewed journal articles. These include blood pressure control programs targeting African American men, blood pressure control/coronary heart disease prevention programs targeting the African American community more generally, and programs focusing on other diseases that provide insight concerning recruitment of African American men into programs.

Chapter 5: General Health Resources

There are a number of organizations with which programs can potentially partner to facilitate program design or implement program interventions. The organizations listed in this chapter include associations for African American health professionals; African American men's health organizations; African American organizations more generally; multicultural health programs at the federal, state, and local levels; and cardiovascular health organizations. Also included are nontraditional resources such as Historically Black Colleges and Universities (HBCUs) and African American fraternities and sororities. Although the programs often used local faith-based organizations as a resource, these kinds of partnerships lack central contact information at the national level and are not included in the chapter.



1

Introduction

Chapter 1: Introduction

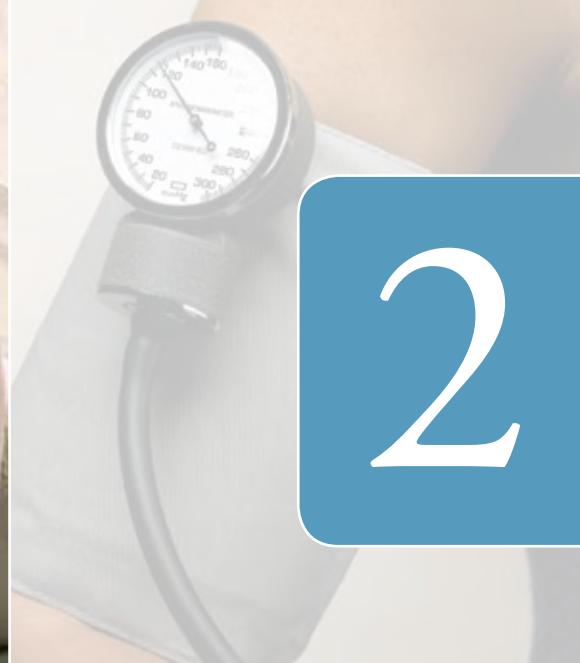
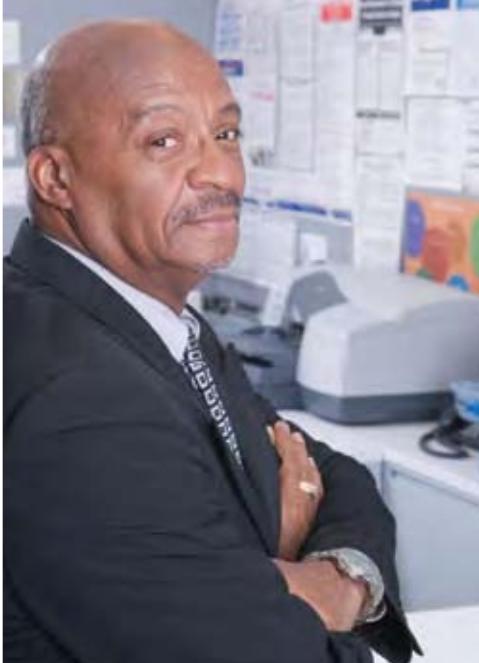
Heart disease and stroke impact the U.S. population in epidemic proportions. According to the American Heart Association, these conditions have led to direct and indirect costs of an estimated \$475 billion in 2009. With heart disease and stroke being the first and third leading causes of death and major causes of disability, national and international experts agree that it is increasingly urgent to take action in addressing these conditions and their risk factors.

The burden of disease and growing health disparities among certain populations are characteristics of the heart disease and stroke epidemic. One of the populations greatly affected by this epidemic is African American men. African American men suffer disproportionately from high blood pressure, a known risk factor for heart disease and stroke. Because of this, the Centers for Disease Control and Prevention's Division for Heart Disease and Stroke Prevention (DHDSP) began to focus attention and resources to developing materials that provide answers.

In 2008, DHDSP funded 41 states and the District of Columbia to conduct policy, environmental, and systems-level interventions to prevent heart disease and stroke. The Program Development and Services Branch of DHDSP is responsible for monitoring the activities of these funded states. As a part of the ongoing technical assistance provided to the states, the Program Services Branch funded a project to create tools identifying systems change interventions that resulted in positive changes in the blood pressure control of African American men. This particular population had been identified as a priority due to the disproportionate burden of hypertension and the paucity of information specific to systems-level change interventions. The project resulted in a literature review and a logic model. However, these tools do not

sufficiently provide the states with comprehensive strategies to use when they develop programs to address blood pressure control in African American men.

To develop a tool that provided strategies and promising interventions about blood pressure control in African American men, a 2-year project was conducted by DHDSP with the assistance of RTI International and the MayaTech Corporation. An expert panel provided guidance throughout the project. The purpose of this project was to produce a resource document that could be used by state heart disease and stroke prevention programs and other public health programs as a reference as they work to develop and implement programs to control high blood pressure in African American men. This book consists of the following: (1) burden data pertaining to African American men and high blood pressure; (2) psychosocial factors that have been found to be related to disproportionately high blood pressure rates among African American men; (3) effective and culturally appropriate promising practices and interventions; and (4) a list of men's health informational resources. Designed to complement the literature review and logic model previously developed by the Program Development and Services Branch, this book will provide more specific information on African American men in regards to blood pressure control. In turn, public health programs can use this resource to develop or enhance systems level interventions that target this priority population.



2

The Burden of High Blood Pressure

2.1 Overview

This chapter reports on the burden of high blood pressure among African American men, including comparisons with white men, Hispanic men overall or Mexican American men, and African American women. Data on the burden of the diseases include national level statistics on morbidity and mortality as it relates to high blood pressure; hypertension awareness, treatment, and control; heart disease; and stroke.

African American men have been more likely to have high blood pressure than white men, Hispanic men overall, or Mexican American men, both in recent years and during earlier periods.^{1–6} According to the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VII report), the classification for hypertension, or high blood pressure, measures greater than or equal to 140 mm Hg systolic or greater than or equal to 90 mm Hg diastolic.⁵⁵ The percentage of African American men with high blood pressure during a recent 5-year period, while fluctuating somewhat, rose overall to 29% by 2006.^{2–6} Among African American men with high blood pressure, awareness, treatment, and control of the disease have been increasing over time.⁷ However, by the 1999 to 2004 period, while more than half of the group was aware that they had disease, 56% were receiving medications, and only 30% had their high blood pressure under control. The percentage of African American men with heart disease was lower than that of white men and African American women from 2002–2006. In contrast, while declining in recent years, the percentage of African American men who have had a stroke was higher than it was for white men during this same time period.

Mortality rates related to hypertensive disease increased among white men as well as African American men and women between 1999 and 2004. Even so, rates remained higher among African American men and women than among white men throughout the period.⁹ In contrast, mortality rates related to diseases of the heart and cerebro-vascular disease (stroke) declined fairly steadily for all three groups between 1990 and 2005 but again, were higher among African American men than white men.¹ This was true even though a smaller percentage of African American men had heart disease.^{2–6}

2.2 Morbidity

2.2.1 Elevated Blood Pressure

Table 1 reports the percentage of African American, white, and Mexican American men and African American women with elevated blood pressure. *Elevated blood pressure* is defined as having systolic pressure of at least 140 mm Hg or diastolic pressure of at least 90 mm Hg.

The data are collapsed into three time spans on the basis of data availability: 1988–1994, 1999–2002, and 2003–2006. In all periods, a larger percentage of African American men had elevated blood pressure than did white or Mexican American men. However, compared with the 1988–1994 period, the percentage of men in each race or ethnicity group with elevated blood pressure had declined by the 2003–2006 period. The percentage of African American women with elevated blood pressure fluctuated over the three periods, but by the 2003–2006 period was smaller than that of African American men.

Table 1.

Percentage of Persons with Elevated Blood Pressure by Race/Ethnicity and Sex, 20–74 Years of Age, for Selected Years

Race/Sex	1988–1994	1999–2002	2003–2006
African American men	30.3	28.2	26.5
White men	19.7	17.6	17.4
Mexican American men	22.2	21.5	15.3
African American women	26.4	28.8	23.9

Note: Percentages are age adjusted. *Elevated blood pressure* is defined as having systolic pressure of at least 140 mm Hg or diastolic pressure of at least 90 mm Hg. Those with elevated blood pressure may be taking prescribed medicine for high blood pressure.

Source: National Center for Health Statistics (2008). Table 71. Hypertension and elevated blood pressure among persons 20 years of age and over, by selected characteristics: United States, 1988–1994, 1999–2002, and 2003–2006. *Health, United States, 2008. With chartbook on trends in the health of Americans*. Hyattsville, MD, 312–313.

Table 2 presents the percentage of adults with high blood pressure during the 2002–2006 period, comparing rates for African American, white, and Hispanic men, and African American women. The percentage of those with high blood pressure fluctuated throughout the period, but increased overall in each group. In each of the years, a larger percentage of African American men had high blood pressure than white or Hispanic men.

Table 2.

Percentage of Persons with High Blood Pressure by Race/Ethnicity and Sex, 18 Years Old and Over, 2002–2006

Race/Sex	2002	2003	2004	2005	2006	Percentage Point Change
						2002–2006 ^a
African American men	26.4	29.1	27.7	28.1	28.6	+2.2
White men	21.2	21.1	22.0	21.5	23.5	+2.3
Hispanic men ^b	16.7	16.2	16.6	17.1	19.2	+2.5
African American women	32.5	33.9	31.0	34.0	34.1	+1.6

Note: Percentages are age adjusted. High blood pressure is defined as an individual being told on two or more physician visits that he or she has hypertension or high blood pressure.

^aThis represents the difference between percentages in 2002 and 2006 and does not take into account any fluctuation during the intervening years.

^bRefers to those of Hispanic or Latino origin and may be of any race or combination of races.

Source: CDC *Vital and Health Statistics* Series 10 Datasets from 2002–2006 (Lethbridge-Cejku et al., 2004, Table 2; Lethbridge-Cejku & Vickerie, 2005, Table 2; Lethbridge-Cejku et al., 2006, Table 2; Pleis & Lethbridge-Cejku, 2006 and 2007, Table 2).

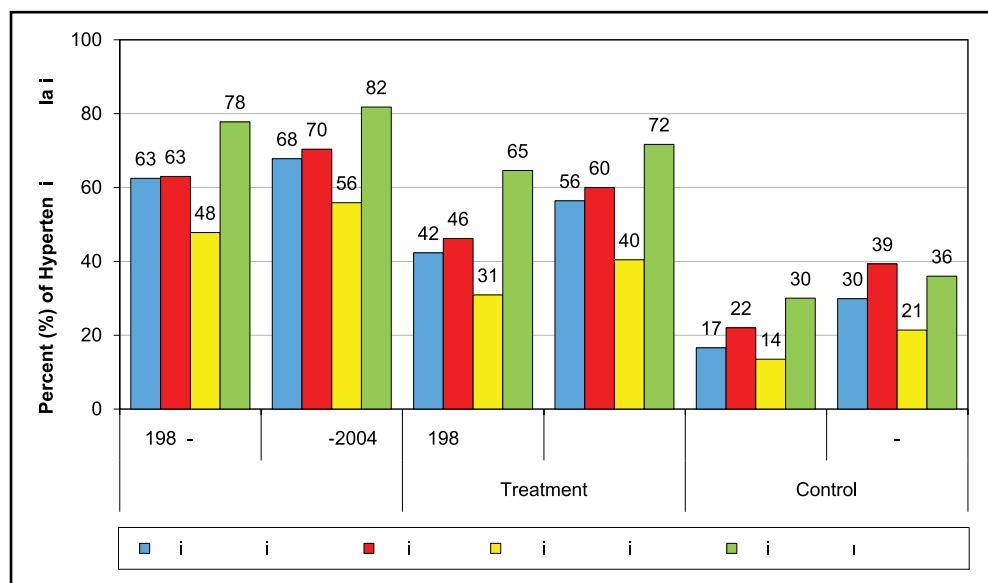
2.2.2 Hypertension Awareness, Treatment, and Control

Successful hypertension management has been described as having three important dimensions: awareness (whether individuals have been told by their physicians that they have hypertension or high blood pressure), treatment (whether individuals report using a prescribed medication to control their hypertension), and control (whether they are maintaining their average systolic blood pressure at less than 140 mm Hg and their diastolic blood pressure at less than 90 mm Hg, and report currently using an antihypertensive medication).

Figure 1 presents data on hypertension awareness, treatment, and control rates among the U.S. adult hypertensive population for African American men, white men, Mexican American men, and African American women during the periods 1988–1994 and 1999–2004.

Figure 1.

Hypertension Awareness, Treatment, and Control Percentages (%) in the U.S. Adult Hypertensive Population by Race; 1988–1994 and 1999–2004



Note: The U.S. adult hypertensive population consists of National Health and Nutrition Examination Survey (NHANES) respondents with an average systolic blood pressure greater or equal to 140 mm Hg and diastolic blood pressure greater or equal to 90 mm Hg or a reported current use of antihypertensive medication. Awareness is defined as hypertensive respondents having been told at least once by a health professional that they have high blood pressure. Treatment is defined as hypertensive respondents reporting use of a prescribed medication for hypertension. Control is defined as hypertensive respondents with a systolic blood pressure less than 140 mm Hg and a diastolic blood pressure less than 90 mm Hg. African American men, white men, and African American women are from the non-Hispanic population.

Source: Cutler JA, Sorlie PD, Wolz M, Thorn T, Fields LE, Rocella E J. Trends in hypertension prevalence, awareness, treatment, and control rates in United States adults between 1988–1994 and 1999–2004. *Hypertension* 2008; 52: 818–827.

2.2.2.1 Hypertension Awareness

Hypertension awareness has been defined as persons with high blood pressure who have been told at least once by a health care professional that they have hypertension or high blood pressure;⁷ self-report having hypertension;⁵⁶ or respond “Yes” to the question “Has your health care provider ever told you that you have hypertension?” or “Were any of the medications you took in the past 2 weeks for high blood pressure?”⁸

As seen in Figure 1, hypertension awareness has increased among all groups (African American men, white men, Mexican American men, and African American women) between the two periods. However, the change was statistically significant only in

relation to white men.⁷ In both periods, awareness among African American men was similar to that of white men, higher than that of Mexican American men, and lower than that of African American women.

Multivariate analysis among Jackson Heart Study participants found that significant predictors of awareness among African American men include obesity, diabetes, increasing age, and use of preventive care.⁸ Multivariate analyses of Reasons for Geographic And Racial Differences in Stroke (REGARDS) data found that awareness was significantly higher among African Americans with high blood pressure than among their white counterparts (OR = 1.45 [CI, 1.24 to 1.71]). The difference was reduced slightly, but was still significant, after controlling for other demographic factors, measures of socioeconomic status, and risk factor variables.⁵⁶

2.2.2.2 Hypertension Treatment

Hypertension treatment has been defined as persons who are hypertensive or have hypertension awareness that are taking prescribed medications for hypertension.^{7,8,56} As shown in Figure 1, patterns across time are similar to those found in relation to awareness; the percentage in each group that received treatment increased over time. White men, African American men, and African American women made statistically significant percentage point increases in receiving hypertension treatment from 1988–1994 to 1999–2004.⁷ Still, white men were more likely to have received treatment in both time periods compared with African American and Mexican American men.

Multivariate analysis among Jackson Heart Study participants found that significant predictors of treatment among African American men include diabetes, cardiovascular disease, hypercholesterolemia, increasing age, being a current smoker, and use of preventive care.⁸ Whites with high blood pressure were significantly less likely to receive hypertension treatment, compared with African Americans, after controlling for geographic region, demographic variables, socioeconomic status, and risk factors.⁵⁶

2.2.2.3 Hypertension Control

Control of hypertension is defined as a hypertensive person (or a hypertensive person receiving treatment) with a systolic blood pressure of less than 140 mm Hg and a diastolic blood pressure of less than 90 mm Hg.^{7,8,56} Patterns over time and between groups were similar in relation to control as we found for treatment (Figure 1).

Hypertension control rates significantly improved from the 1988–1994 to 1999–2004 period for all four of the population groups.⁷ More recent data show substantial increases in control rates; 46.5% among African Americans, 46.1% among whites, and 35.2% among Mexican Americans.⁵⁷ Still, the percentage of the population successfully controlling their hypertension was appreciably smaller than the percentage that was aware or receiving treatment.

Factors significantly related to African American men successfully controlling their hypertension include not having chronic kidney disease and being older.⁸ A multivariate analysis comparing the African American and white populations receiving hypertension treatment found that African Americans were less likely to have controlled blood pressure levels compared with their white counterparts, after controlling for demographic variables, socioeconomic status, and risk factors.

2.2.3 Heart Disease

In *Table 3*, we present the percentage of adults with heart disease, comparing African American men and other groups, between 2002 and 2006. The percentages of adults with heart disease for all groups fluctuated throughout the period but typically were lower among African American men than among white men or African American women. In 4 of the 5 years, Hispanic men had the lowest percentage of adults with heart disease. Between 2002 and 2006, the percentage of adults with heart disease declined slightly among all groups except African American women, which increased slightly.

Table 3.

Percentage of Persons with Heart Disease, by Race/Ethnicity and Sex, 18 Years Old and Older, 2002–2006

Race/Sex	2002	2003	2004	2005	2006	Percentage Point Change 2002–2006 ^a
African American men	9.9	10.3	8.4	9.0	9.4	-0.5
White men	13.4	13.0	13.5	13.7	13.0	-0.4
Hispanic men ^b	7.8	6.7	9.2	8.4	7.4	-0.4
African American women	10.1	9.9	10.5	11.4	10.5	+0.4

Note: Percentages are age adjusted. Heart disease includes coronary heart disease, angina pectoris, heart attack, or any other heart condition or disease. Data were collected through the National Health Interview Survey, 2006.

^aThis represents the difference between percentages in 2002 and 2006 and does not take into account any fluctuation during the intervening years.

^bRefers to those of Hispanic or Latino origin and may be of any race or combination of races.

Source: Data are from five CDC Vital and Health Statistics Series 10 Datasets from 2002–2006 (Lethbridge-Cejku et al., 2004, Table 2; Lethbridge-Cejku & Vickerie, 2005, Table 2; Lethbridge-Cejku et al., 2006, Table 2; Pleis & Lethbridge-Cejku, 2006 and 2007, Table 2).

2.2.4 Stroke

As shown in *Table 4*, the percentage of adults who had a stroke was higher among African American men than among white or Hispanic men throughout the period 2002–2005. Although the percentages of adults who had a stroke in these groups fluctuated throughout the period, by 2005 rates had declined for African American men and increased substantially for African American women, resulting in African American women having the highest percentage experiencing a stroke of any group.

Table 4.

Percentage of Persons with Stroke by Race/Ethnicity and Sex, 18 Years Old and Older, 2002–2005

Race/Sex	2002	2003	2004	2005	Percentage Point Change 2002–2005 ^a
African American men	3.6	3.8	3.5	2.8	-0.8
White men	2.5	2.5	2.7	2.3	-0.2
Hispanic men ^b	2.6	3.0	3.2	2.5	-0.1
African American women	2.3	3.4	3.0	4.0	+1.7

Note: Data were collected through the National Health Interview Survey, 2006.

^a Percentages are age adjusted. This represents the difference between percentages in 2002 and 2005 and does not take into account any fluctuation during the intervening years.

^b Refers to those of Hispanic or Latino origin and may be of any race or combination of races.

Source: Data in this table are based on data from five CDC *Vital and Health Statistics* Series 10 Datasets from 2002–2006, respectively (Lethbridge-Cejku et al., 2004, Table 2; Lethbridge-Cejku & Vickerie, 2005, Table 2; Lethbridge-Cejku et al., 2006, Table 2; Pleis & Lethbridge-Cejku, 2006 and 2007, Table 2).

2.3 Mortality

2.3.1 Death Rates from Hypertensive Disease

Changes over time in rates of death from hypertensive disease are presented first for the condition overall and then more specifically for essential hypertension and for hypertensive heart disease. Hypertensive disease includes (1) essential (primary) hypertension (ICD-9 code: 401), (2) hypertensive heart disease (ICD-9 code: 402), (3) hypertensive renal disease, (ICD-9 code: 403) and (4) hypertensive heart and renal disease (ICD-9 code: 404). Hypertensive disease excludes complications from childbirth, pulmonary hypertension, neonatal hypertension, and hypertension involving coronary vessels. Essential hypertension includes high blood pressure; hyperpiesia; hyperpiesis; arterial, primary, and systemic hypertension; and hypertensive vascular degeneration or disease. It excludes elevated blood pressure without a diagnosis of hypertension, and pulmonary hypertension (involving vessels of the brain or eye). Hypertensive heart disease is defined as any condition involving heart failure, congestive heart failure, heart disease, myocarditis (unspecified), cardiovascular disease (unspecified), or cardiomegaly due to hypertension.

Death rates from hypertensive disease increased from 1999–2004 among African American men and comparison groups: white men and African American women (see Table 5). In each year, death rates for African American men were more than twice those of white men yet were lower than those of African American women. African American men experienced the largest rate increase over time (4.5), followed by white men (3.4) and African American women (2.7).

Table 5.

Death Rates Due to Hypertensive Disease by Race and Sex, 1999–2004

Race/Sex	1999	2000	2001	2002	2003	2004	Rate Change 1999–2004 ^a
African American men	26.8	26.8	27.7	29.3	30.8	31.3	+4.5
White men	10.8	11.3	11.8	12.7	13.6	14.2	+3.4
African American women	30.3	30.8	30.5	31.9	33.3	33.0	+2.7

Note: Rates are per 100,000 of the population. Data collected through the National Health Interview Survey, 2006.

Note: Hypertensive disease includes essential (primary) hypertension (ICD-9 code: 401), hypertensive heart disease (ICD-9 code: 402), hypertensive renal disease (ICD-9 code: 403), and hypertensive heart and renal disease (ICD-9 code: 404). It does not include complications from childbirth, pulmonary hypertension, neonatal hypertension, and hypertension involving coronary vessels.

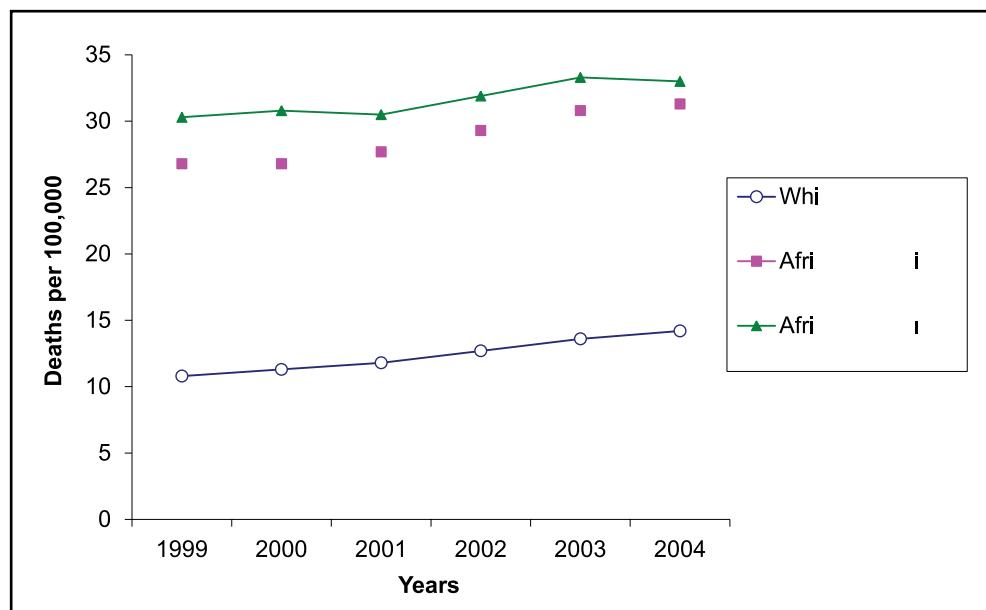
^aThis represents the difference between rates in 1999 and 2004 and does not take into account any fluctuation during the intervening years.

Source: National Center for Health Statistics (2007). *Death rates from 358 selected causes, by 10-year age groups, race and sex: United States 1999–2004* (Worktable No. 12). National Vital Statistics System.

From 1999–2004, death rates increased continually over the period, as shown in *Figure 2*. They were substantially higher among African American men than among white men throughout the period.

Figure 2.

Death Rates Due to Hypertensive Disease by Race and Sex, 1999–2004



Source: National Center for Health Statistics (2007). *Death rates from 358 selected causes, by 10-year age groups, race and sex: United States 1999–2004* (Worktable No. 12). National Vital Statistics System.

Changes in death rates from essential hypertension from 1999–2004, as shown in *Table 6*, followed the same pattern as hypertensive disease overall. In each year, death rates for African American men were higher than those of white men and lower than those of African American women. Rates for white men and African American women generally increased annually, but rates for African American men fluctuated during the period. *Figure 3* graphically depicts these data and shows that rates were substantially higher among African American men and women than among white men throughout the period.

Table 6.

Death Rates Due to Essential Hypertension by Race and Sex, 1999–2004

Race/Sex	1999	2000	2001	2002	2003	2004	Rate Change 1999–2004 ^a
African American men	3.8	4.0	4.3	4.0	4.7	4.4	+0.6
White men	2.4	2.5	2.6	2.7	2.9	3.2	+0.8
African American women	5.3	5.3	5.5	5.8	6.3	6.4	+1.1

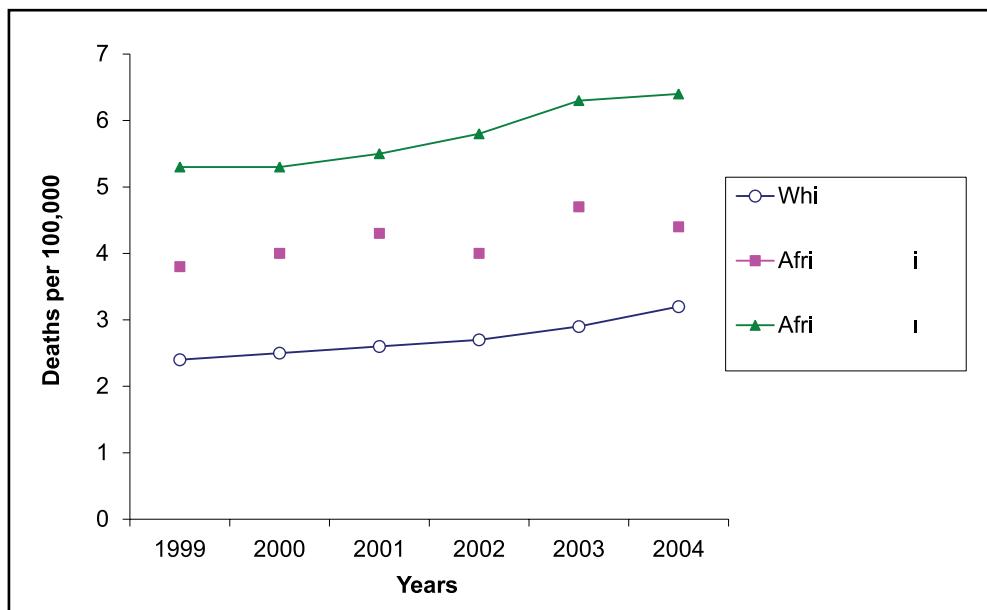
Note: Rates are per 100,000 population, all ages. Essential hypertension (ICD-9 code: 401) includes high blood pressure; hyperpiesia; hyperpiesis; arterial, primary, and systemic hypertension; and hypertensive vascular degeneration or disease. It excludes elevated blood pressure without diagnosis of hypertension, and pulmonary hypertension (involving vessels of the brain or eye).

^aThis represents the difference between rates in 1999 and 2004 and does not take into account any fluctuation during the intervening years.

Source: National Center for Health Statistics (2007). Death rates from 358 selected causes, by 10-year age groups, race and sex: United States 1999–2004 (Worktable No. 12). National Vital Statistics System.

Figure 3.

Death Rates Due to Essential Hypertension by Race and Sex 1999–2004



Source: National Center for Health Statistics (2007). Death rates from 358 selected causes, by 10-year age groups, race and sex: United States 1999–2004 (Worktable No. 12). National Vital Statistics System.

Death rates from hypertensive heart disease among African American men and women from 1999–2004, as shown in *Table 7*, but were more than twice those of white men in each year. Rates for African American men and white men increased in each year of the period. African American men experienced the largest rate increase, (3.2 deaths per 100,000 population), while African American women experienced a 1 death per 100,000 population increase over the period.

As shown in *Figure 4*, among all groups, death rates from hypertensive heart disease showed a gradual increase from 1999–2004. Throughout the period, rates were highest among African American women. Rates were also considerably higher among African American men and women than white men.

Table 7.

Death Rates Due to Hypertensive Heart Disease by Race and Sex, 1999–2004

Race/Sex	1999	2000	2001	2002	2003	2004	Rate Change 1999–2004 ^a
African American men	15.2	15.6	15.9	17.5	18.1	18.4	+3.2
White men	5.8	6.1	6.4	7.1	7.7	7.8	+2.0
African American women	15.9	16.5	16.2	16.9	17.8	16.9	+1.0

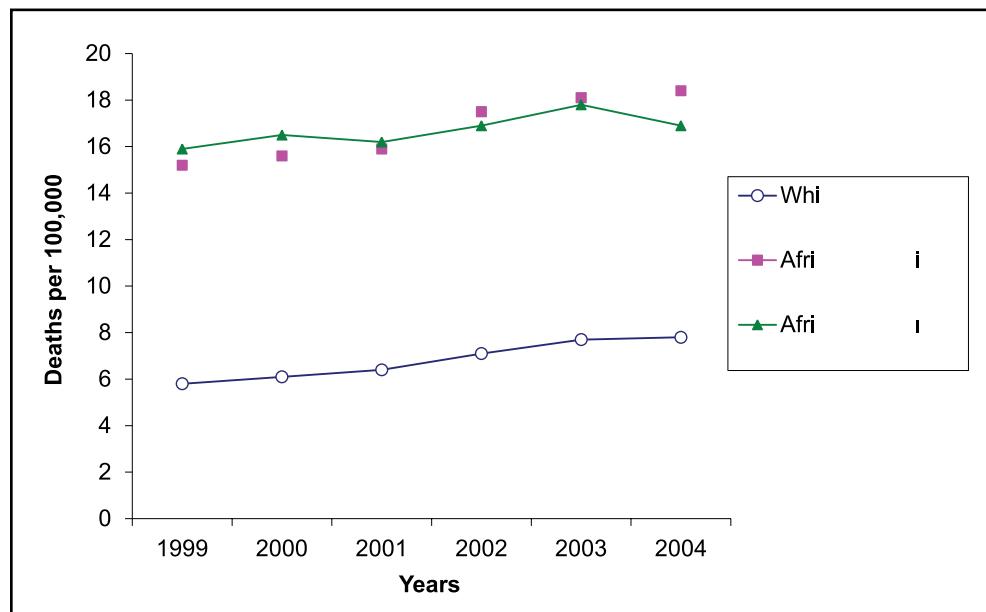
Note: Rates are per 100,000 population, all ages. Hypertensive heart disease (ICD-9 code: 402) is defined as any condition involving heart failure, congestive heart failure, heart disease, myocarditis (unspecified), cardiovascular disease (unspecified), or cardiomegaly due to hypertension.

^a This represents the difference between rates in 1999 and 2004 and does not take into account any fluctuation during the intervening years.

Source: National Center for Health Statistics (2007). Death rates from 358 selected causes, by 10-year age groups, race and sex: United States 1999–2004 (Worktable No. 12). National Vital Statistics System.

Figure 4.

Death Rates Due to Hypertensive Heart Disease by Race and Sex, 1999–2004



Source: National Center for Health Statistics (2007). *Death rates from 358 selected causes, by 10-year age groups, race and sex: United States 1999–2004* (Worktable No. 12). National Vital Statistics System.

2.3.2 Death Rates from Heart Disease

Death rates from diseases of the heart declined annually for all three groups throughout the period 1999–2005, as shown in *Table 8*. Still, in each of the years, rates for African American men were higher than those for white men and African American women. The change over time and the relationship between the three groups is shown graphically in *Figure 5*.

Table 8.

Death Rates Due to Diseases of the Heart, 1999–2005

Race/Sex	1999	2000	2001	2002	2003	2004	2005	Rate Change 1999–2005 ^a
African American men	407.2	392.5	384.5	371.0	364.3	342.1	329.8	-77.4
White men	327.1	316.7	301.8	294.1	282.9	264.6	258.0	-69.1
African American women	283.7	277.6	269.8	263.2	253.8	236.5	228.3	-55.4

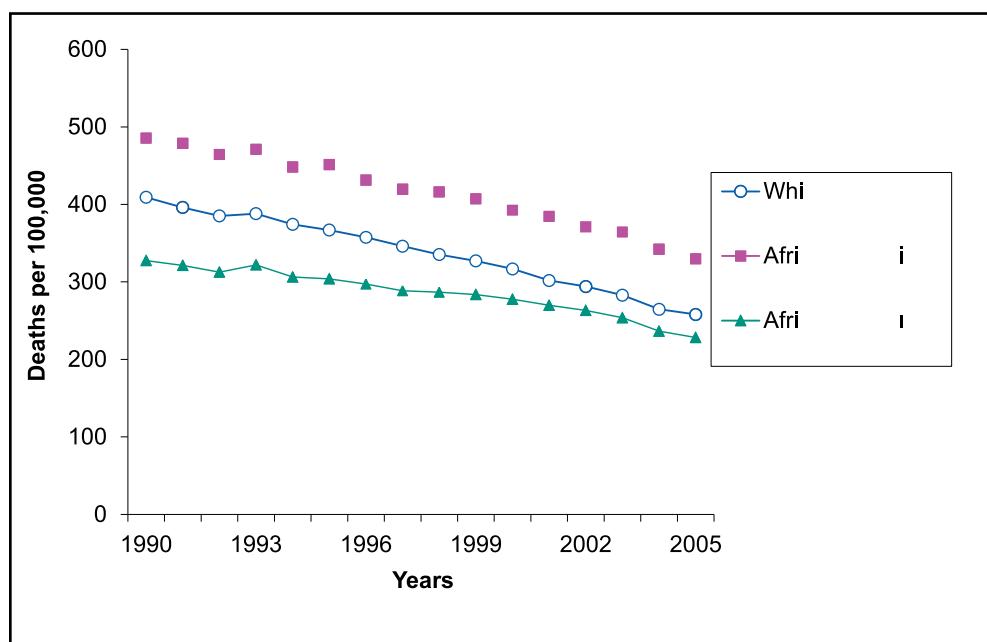
Note: Rates are per 100,000 population, all rates are age adjusted.

^aThis represents the difference between rates in 1999 and 2005 and does not take into account any fluctuation during the intervening years.

Source: National Center for Health Statistics (2008). Table 35. Death rates for diseases of the heart, by sex, race, Hispanic origin, and age: United States, selected years 1950–2005. *Health, United States, 2008. With chartbook on trends in the health of Americans*. Hyattsville, MD. 229–232.

Figure 5.

Death Rates Due to Diseases of the Heart by Race and Sex, 1990–2005



Source: National Center for Health Statistics (2008). Table 35. Death rates for diseases of the heart, by sex, race, Hispanic origin, and age: United States, selected years 1950–2005. *Health, United States, 2008. With chartbook on trends in the health of Americans*. Hyattsville, MD. 229–232.

2.3.3 Death Rates from Cerebrovascular Disease

Death rates from cerebrovascular disease (stroke) declined annually in virtually all years for African American men and comparison groups from 1999–2005, as shown in *Table 9*. Throughout the period, annual rates were highest among African American men and lowest among white men.

Table 9.

Death Rates Due to Cerebrovascular Disease (Stroke) by Race and Sex, 1999–2005

Race/Sex	1999	2000	2001	2002	2003	2004	2005	Rate Change 1999–2005 ^a
African American men	89.6	89.6	85.4	81.7	79.5	74.9	70.5	– 19.1
White men	60.8	59.8	56.5	54.2	51.7	48.1	44.7	–16.1
African American women	76.2	76.2	73.7	71.8	69.8	65.5	60.7	–15.5

Note: Rates are per 100,000 population, all rates are age adjusted.

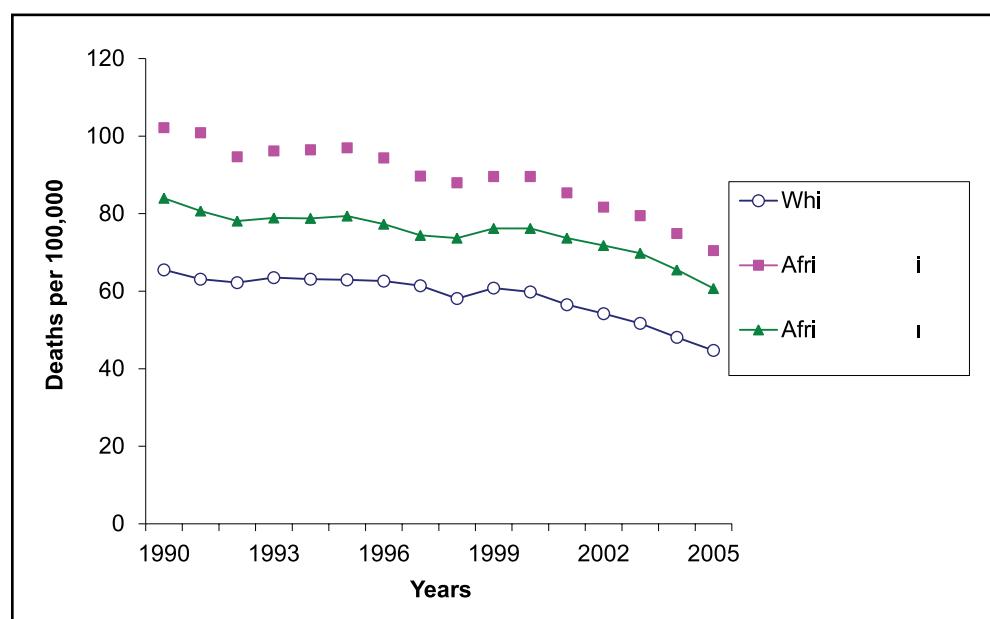
^a This represents the difference between rates in 1999 and 2005 and does not take into account any fluctuation during the intervening years.

Source: National Center for Health Statistics (2008). Table 36. Death rates for cerebrovascular diseases, by sex, race, Hispanic origin, and age: United States, selected years 1950–2005. *Health, United States, 2008. With chartbook on trends in the health of Americans*. Hyattsville, MD. 233–235.

Similarly, trends show an overall decline in death rates from cerebrovascular disease during the period from 1990–2005 for each group, as shown in *Figure 6*. In each of the years, rates were highest among African American men, followed by African American women, and were lowest for white men.

Figure 6.

Death Rates Due to Cerebrovascular Disease by Race and Sex, 1990–2005



Note: Rates are age adjusted.

Source: National Center for Health Statistics (2008). Table 36. Death rates for cerebrovascular diseases, by sex, race, Hispanic origin, and age. *Health, United States, 2008. With chartbook on trends in the health of Americans*. Hyattsville, MD. 233–235.



3

Psychosocial Aspects of Blood Pressure Control among African American Men

3.1 Overview

This chapter discusses psychosocial factors found to be related to disproportionately elevated rates of high blood pressure among African American men. These factors include racism and mechanisms for coping with racism, attitudes about hypertension, access to care, socioeconomic status, area of residence, and availability of social supports, depression, substance abuse, and obesity. It concludes with a discussion of emerging knowledge about disparities in hypertension.

3.2 Perceived Racism, Experienced Racism, and Racial Discrimination

We reviewed studies investigating the relationship between perceived racism or discrimination and hypertension or high blood pressure in African American men. A review article presenting a summary of empirical research on self-reported racism and a number of health-related outcomes found that across studies, the main effect of racism on blood pressure was mixed. Nineteen studies found that self-reported racism was associated with increased blood pressure or hypertension and 59 studies found no association.¹⁴ A significant relationship was found in three-quarters of the studies reviewed.¹⁴ This is relevant as the relationship between racism and blood pressure level may be mediated by mental health effects, such as stress and self-esteem; perceived racism negatively affects mental health, which, in turn, may negatively affect blood pressure.

In one large study, level of exposure to discrimination among African American men was found to be related to differences in blood pressure level after controlling for such factors as age, marital status, and alcohol consumption, but the relationship differed on the basis of the men's socioeconomic status.¹³ The study found that among working class African American men, systolic blood pressure was higher among those reporting

that they typically accepted unfair treatment as a fact of life, but talked to others about it, than it was among those who both tried to do something and talked to others. Blood pressure levels were also higher among those who reported no incidents of racial discrimination, as well as among those who reported the highest levels of exposure (three or more situations), compared with more moderate levels of exposure (one or two situations).

In contrast, among professional African American men, diastolic blood pressure was lower among men who reported no racial discrimination compared with those with moderate exposure, suggesting a difference in coping style among men in different social classes. Blood pressure levels of professional African American and white men were comparable. The authors conclude that responses to racial discrimination and coping mechanisms affect blood pressure levels. Greater social and economic resources and the resulting increased ability to name and challenge discrimination may be protective factors among professional men. This conclusion is bolstered by models demonstrating that the health effects of a stressor, such as racism, may depend in part on the strategies used to cope with exposure.¹⁵

The metro Atlanta heart disease study found that stressful racism and race-related discrimination at work are associated with increased blood pressure and increased hypertension.¹¹ Controlling for sociodemographic characteristics in a sample of 356 African Americans, 55% of whom were men, those who were hypertensive were not more likely to have had encounters of racial discrimination that caused stress. However, they were twice as likely to be hypertensive if the level of stress was moderate or high, rather than low.¹⁰

Investigators have suggested that the effects of racism on high blood pressure can be examined within the framework of stress and coping theories. John Henryism is a style of coping behaviors used to deal with psychosocial and environmental stressors such as chronic financial strain, job insecurity, and racial discrimination.¹⁷ The classic traits of John Henryism are seen among those African Americans who are extremely focused on success, particularly in new environments with which they have little experience. Those with a high John Henryism orientation believe that obstacles can be overcome through hard work and a strong determination to succeed. Most commonly, people with John Henryism are extremely goal-oriented but lack the resources they need for success, such as financial or emotional support.¹⁷ People with high levels of John Henryism and inadequate resources may have a higher prevalence of health disorders. This is due to the unrelenting drive with which they push themselves toward specific goals at the expense of their health—often without realizing they are doing so.

The relationship of John Henryism to socioeconomic status and blood pressure was examined among African American workers in Pitt County, North Carolina.¹⁸ Socioeconomic status was measured as “high” for high school graduates and “low” for those with less than a high school education. Those with low socioeconomic status were found to have higher adjusted diastolic blood pressure than those with high socioeconomic status. However, when the high and low socioeconomic status groups were divided into high and low John Henryism groups, a new effect emerged. Among people with low John Henryism, the difference in blood pressure between low socioeconomic status and high socioeconomic status was small. However, among people with high John Henryism, the difference in mean blood pressure was far greater; those in the low socioeconomic status group had significantly higher mean blood pressure than did those in the high socioeconomic status group. It is theorized that unfulfilled expectations and a lack of opportunities in the high John Henryism

group (demonstrated by their low socioeconomic status) and elevated stress levels led to higher mean blood pressure.

Studies have replicated S. A. James' analysis of John Henryism in study populations that differ geographically, by age range, and/or educational level.^{58,59} Using S. A. James' definition of socioeconomic status and method of measuring John Henryism, Wiist and Flack found no association between the interaction of John Henryism and socioeconomic status, and the risk of elevated blood pressure or hypertension.⁵⁹ However, differences in the study populations may account for these null findings. Specifically, psychological strategies used to cope with environmental stressors among southwest urban African Americans in the Wiist and Flack study, may differ from those of the rural southeast African Americans studied by S. A. James and colleagues. Additionally, James studied a relatively poor community with a low level of education and a high unemployment rate, whereas Wiist and Flack's study population was better educated and had only one-half the unemployment rate. Similarly, in another study, John Henryism was not an independent predictor of blood pressure among relatively healthy, urban, African American college students.⁵⁹

Two additional studies examined the relationship between perceived racism and hypertension in workplace samples of African Americans.^{12,17,60} Research by Dressler⁶⁰ found that among 90 employed African Americans, perceived racism was associated with various indices of stress, but there was no direct correlation between perceived racism and blood pressure. In contrast, in a second study of African American and Mexican American employees, a small positive correlation was found between perceived intensity of exposure to racism and resting blood pressure levels.¹²

3.3 Knowledge, Beliefs, and Attitudes about Hypertension

Among the most significant problems affecting racial disparities in hypertension control are differences between patients and providers in beliefs and attitudes about health. It has been theorized that health beliefs of patients are of principal importance in influencing behavior change.¹⁹ Thus, understanding the role of beliefs and attitudes in communicating information about hypertension is essential.

For African Americans, beliefs about hypertension are varied but are often nonclinical in origin, particularly among those of lower socioeconomic status, older age, and lower educational attainment.²⁰ For example, some African Americans believe there is a difference between hypertension and high blood pressure.^{19,20} Among those who differentiate between the two terms, hypertension is seen as a condition resulting from stress, anxiety, or anger. High blood pressure is viewed as a condition resulting from high-fat foods that cause the blood to thicken and move more slowly,¹⁹ or an illness that causes blood to rush to the head.²⁰ Beliefs about the origins of hypertension also affect beliefs about susceptibility to the disease. Some African Americans believe that the use of home remedies (such as vinegar, garlic, or Epsom salts, which are believed to thin the blood) can rid them of the disease.²⁰

Health beliefs can also have a significant effect on adherence to treatment.¹⁹ These include beliefs about severity of the disease, susceptibility, and effectiveness of treatment. Focus groups conducted with African Americans have demonstrated that patients have difficulty believing they have hypertension when they do not have symptoms.¹⁹ This may affect both confidence in the medical establishment and compliance with medical recommendations.

3.4 Access to Care

Medical care use is generally lower among African Americans than among whites. Even among those who are aged 65 and older and have health insurance coverage through Medicare, African Americans receive fewer medical services than do whites.²³ African American men, in particular, take fewer prescription and non-prescription medications than do their white counterparts.²¹

African Americans have historically distrusted the medical system. Doubts about the adequacy and necessity of recommended care are fueled both by a difference in the medical beliefs of African American patients and medical science, as well as historical incidents of racism and abuse by the medical profession.²² These different belief systems may affect communication between doctor and patient. Physician stereotypes about African Americans' lack of knowledge, poor education, lack of understanding of clinical concepts, and poor compliance with treatment can lead to reduced expectations.²⁵ Alternately, patients might believe that the provider is not listening to or valuing their opinion, or is treating them disrespectfully.²⁴

Cultural competence or cultural appropriateness is described by Anderson, Scrimshaw, Fullilove, Fielding, and Normand⁶¹ as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enable effective work in cross-cultural situations." Communication problems between providers and patients can reflect a lack of cultural competence by the provider and can create additional barriers that might reinforce negative health behaviors by patients.²⁶ Commonly, African American patients are seen by health care providers who are not from their same culture. Patients have been found to be more satisfied if their physician was of their same race or ethnicity group, suggesting a greater level of trust and comfort.⁶²

3.5 Health Insurance

Successful control of hypertension has been found to be related to having health insurance. As shown in *Table 10*, 22.6% of African American males were uninsured during all of 2006, whereas just over half (53.6%) had private coverage, and almost one-third (31.2%) had government-sponsored coverage (including Medicare and Medicaid) at some time during the year. In contrast, white males were less likely to be uninsured (16.6%) and much more likely to have private insurance coverage (70.1%).

Between 1999 and 2004, among adults with hypertension, 41% of those who were insured had their blood pressure under control, compared with 21% of those without insurance.⁶³ After controlling for other factors, during the earlier period of 1988 to 1994, a study using a nationally representative sample found that successful control of hypertension was significantly related to being insured among African Americans, but not among whites.²⁸

A critical protective component of health insurance may be prescription drug coverage. Among Medicare beneficiaries with hypertension, African Americans with no supplemental prescription coverage or Medicaid prescription coverage were significantly less likely to use any hypertensive drugs. In contrast, African Americans with employer-sponsored or Medicare + Choice (M+C) plans were more likely to use hypertensive drugs than those without either type of plan.²⁹

Table 10.
Health Insurance Coverage
Rates, 2006

Race/Sex	Insured at some time during the year ^a			
	Uninsured all year	Private insurance	Direct purchase insurance	Government-sponsored health plan
African American men	22.6%	53.6%	4.7%	31.2%
White men	16.6%	70.1%	9.1%	24.1%
Hispanic men (of any race)	37.2%	62.8%	3.3%	24.9%
African American women	18.6%	53.6%	4.7%	35.2%

^a Insured rates by race/sex may add to greater than 100% because individuals may have more than one type of insurance during the year.

Source: U.S. Census Bureau, *Current Population Survey, Annual Social and Economic (ASEC) Supplement*, http://pubdb3.census.gov/macro/032007/health/h01_000.htm

3.6 Quality of Care

Even if the individual experiences few, if any, symptoms, successful control of hypertension requires lifelong adherence to a regimen including medical care and lifestyle and behavioral management. If side effects are problematic, patients may need to work with their clinician to change their medication. Access to high quality health care is an important factor in individuals achieving these goals. Particularly important is access to patient-centered care: treatment that is respectful and responsive to the patient's preferences, needs, and values.⁶⁴

Analysis of the Third National Health and Nutrition Examination Survey found that visiting the same health care facility or having the same health care provider was positively related to successful hypertension control.²⁸ Hypertensive African Americans were significantly less likely than hypertensive whites to have the same ongoing health care provider, but no difference was found in access to the same facility or time from the last blood pressure measurement.

Trust and an ongoing working relationship between a patient and his or her medical provider can be crucial to adherence. Among African American patients, adherent patients are more likely to report a trusting, honest relationship with their clinician, and to report that their clinician worked with them to manage their treatment.¹⁹ Non-adherent patients were more likely to describe their clinicians as being critical, not listening or caring, and not seeing them as individuals. Adherent African American patients thought that their clinicians should be the primary source of knowledge about hypertension and its treatment. Trust in their clinician was a major facilitator of good doctor-patient communications.³⁰

African American patients may fear that the care they receive is different from or inferior to the care being provided to white patients. This can be addressed through gaining patients' trust through frank conversations; allaying patients' fear about being experimental subjects; and emphasizing that medications are equally good for African Americans; and that much clinical trial evidence has shown the blood

pressure-lowering effects of both pharmacologic and non-pharmacologic interventions in African American patients.³¹ One university-based clinic addressed dissatisfaction among hypertensive African American patients by implementing the routine administration of an intake form to gain greater information about patients' lifestyle habits and by distributing patient education handouts.⁶⁵

Several studies have been conducted examining racial disparities in hypertension control among patients at Veteran's Affairs (VA) medical facilities. After controlling for clinical, psychosocial, and patient characteristics, medication adherence was not related to trust as measured through participatory decision-making or a survey instrument.^{32,66} However, a stronger association was found between physician counseling and trust in physicians for African American than for white patients, further supporting the notion that quality of care for hypertensive African American patients requires patient-centered interventions.³²

3.7 Socioeconomic Status

Although African Americans have been theorized to have certain biological risk factors for hypertension, the over-representation of African Americans in the lowest income brackets is also a contributing factor to their risk for this disease.³⁴ This correlation may be due to lack of health insurance, an inability to pay for medical services and preventive care, limited access to healthy foods, and insufficient environmental supports that promote healthy lifestyles in low-income neighborhoods (e.g., lack of sidewalks and safe recreational facilities, poorly maintained parks).³⁸ Also, non-elderly poor men rarely qualify for Medicaid unless they are disabled.⁶⁷

Individuals without health insurance must rely on health services from institutions such as community health centers and public hospitals. Community health centers are particularly active in caring for poor minority patients.³⁶ However, care at such facilities may mean that patients may not have one consistent provider or cannot afford to pay for the treatments prescribed. Given the difficulty associated with seeking medical care, poor individuals are more likely to be diagnosed at later stages of or following a serious event (e.g., heart attack, stroke), which makes the need for care more immediate and the need to follow treatment recommendations all the more crucial.

African Americans are more geographically segregated from whites than any other minority group in the United States. Racial segregation has been found to be a predictor of poor health outcomes and a partial explanation for racial disparities in health.³⁹ In addition to their individual socioeconomic status, residing in a racially isolated neighborhood has also been found to be an additional risk factor for poorer health status among African Americans.

Income and wealth are significant and independent predictors of having a chronic condition.⁶⁸ Individuals in the lowest socioeconomic strata are much more likely to be negatively affected by health issues than are those in higher strata. In the Pitt County Study, comparisons of African American men by socioeconomic status found that, compared with men who had high socioeconomic status in childhood and adulthood, the odds of hypertension were seven times as great for low childhood/low adulthood

men, four times as great for low childhood/high adulthood men, and six times as great for high childhood/low adulthood men.³⁷ The study concluded that both childhood and adulthood access to wealth are protective against premature hypertension among African American men.

Although socioeconomic status is a strong contributor to health status in African Americans, even after controlling for this factor, hypertension rates are still significantly higher than in other groups.^{34,68} After further controlling for risk factors such as diet, smoking, drinking, and exercise, in addition to socioeconomic status, the prevalence of chronic disease and impairment, was still higher among African Americans. Thus, although a combination of low income and poor health behaviors are contributing factors to rates of hypertension in African Americans, they do not fully explain disparities.

Following is a discussion of other candidate factors that have been shown to have an influence on blood pressure control; however, this research is largely reporting studies of African American populations in general because research specifically addressing African American men and high blood pressure is scarce.

3.8 Rural Residence

Historically, residing in a rural area has been related to increased barriers to health care due to a lack of available services. It has been estimated that rural areas have one-half the number of physicians per capita compared with urban areas, as well as very low numbers of nurses and other health care providers.⁶⁹ Rural areas with a predominately African American population tend to have access to even less financial support than do those with a predominately white population.⁶⁹

Rural populations are also more likely to have lower incomes and be self-employed, often resulting in a lack of health insurance and/or an inability to pay for medical services. Poor individuals in rural areas are less likely to receive insurance from entitlement programs (e.g., Medicaid), and access to care may be limited by other barriers such as pride, low functional literacy, and fear of being stigmatized in their small community.⁶⁹

The limited availability of transportation can also compound the health care problems of rural communities. Lower incomes may mean that access to personal automobiles is limited whereas the distance between a patient's home and a medical facility is often great. Lack of public transportation may further limit access to care.⁷⁰ The combination of these factors may result in fewer opportunities for preventive care, later-stage diagnosis for illness and disease, and disparate health outcomes when compared with urban populations.^{69,70}

African Americans may be at increased risk for poor health if they reside in a rural setting.⁶⁹ Data from the Third National Health and Nutrition Examination Survey (NHANES III) found that rural African Americans are more likely to have high blood pressure than both urban and rural whites and urban African Americans.⁷⁰ However, despite having significantly worse results than both their urban and rural white counterparts, neither urban nor rural African Americans with high blood pressure significantly differed from each other in their likelihood of successfully controlling their condition, after adjusting for socioeconomic factors and access to care.

3.9 Social Support

Higher levels of social support of family and friends, including emotional, cognitive, and instrumental support, have been found to increase compliance with treatment among African Americans with chronic disease.⁷¹

The use of faith-based health interventions in the African American community has been well documented by many researchers.^{72,73} One major reason that such programs have had success is that they build on the already existing social networks within the community. These programs are able to capitalize on the trust that is already present between parishioners and the leadership of a faith-based organization.⁷² Spirituality in and of itself may also be protective. Individuals with lower spirituality scores perceived their racist encounters as being stressful and were more likely to report adverse health symptoms. This relationship was not found among those with greater spirituality.⁷⁴

The social support provided by the faith-based organization, as well as support from family, friends, and community leaders can play an important role in behavior change, particularly in the African American community.⁷⁵ Researchers have documented the prominent role of non-familial African American community members serving as an extended family in times of need.⁷⁶ This is due to a variety of factors including racism and the resulting segregation of African American communities. This social isolation has led to strong ties among African Americans and reflects a high degree of social integration.

The more socially integrated that patients are, the lower their risk for disease.⁷⁶ Cultural norms can serve as an indicator of what is appropriate and acceptable behavior in a community. Participating in behaviors that are contrary to these norms can be difficult without the encouragement and support of others. This support is even more helpful when it is coupled with similar changes in behavior by others in the social network. Common experience facilitates positive action and reduces barriers to change. However, if norms are contrary to what is advised by the medical profession, they can pose a barrier to adopting more positive health behavior.

3.10 Depression

Extensive epidemiological evidence supports a positive association between depression and hypertension.^{77–82} Although several studies found depression to be a predictor of hypertension, others point out that depression and hypertension share a prominent risk factor: stress.

Epidemiological evidence widely supports the claim that psychological factors (e.g., depression) can mediate and negatively influence health behavior, leading to poor diet, obesity, inactivity, smoking, and alcohol abuse. This, in turn, can negatively influence blood pressure.^{77,78,79,83,84} The Bogalusa Heart Study found that among 403 African American participants, depression was indirectly related to hypertension through higher levels of body mass index (BMI).⁸⁵

3.11 Substance Abuse

Substance abuse and alcohol consumption continue to be problems within African American communities.^{86,87} Nationally, African Americans report lower levels of alcohol use than whites^{87,88} and higher abstention rates but similar levels of heavy drinking.^{87,89} Heavy drinking has decreased significantly in white men but has remained stable in the African American community.^{88,89,90} Heavy drinking increases the risk of health consequences, which are categorized as drinking consequences (i.e., illness) and alcohol dependence symptoms.⁸⁸ Research results are mixed in concluding whether there are racial differences in drinking consequences and alcohol-dependency symptoms.^{88,91,92,93,94,95}

Substance abuse has been associated with acute palpitations, hypertension, stroke, and depression.⁹⁶ Some studies have shown that heavy drinkers have significantly higher blood pressure than the rest of the population, and these blood pressure related effects tend to surface at an earlier age for men than women.^{97,98} Blood pressure levels may be affected through multiple mechanisms; stress has been identified as a mediator between alcohol and blood pressure.⁹⁹

Although studies have linked alcohol as a risk factor or mediating factor for high blood pressure, epidemiological data do not support drug abuse as a significant factor for increased blood pressure in the African American community. However, alcohol and illicit drug use are negatively associated with high blood pressure control behaviors, and have been found to create barriers to hypertension care and control among African American men.^{79,100,101,102}

3.12 Obesity

According to the National Health Interview Survey, 67% of African American men are overweight, and, of these, close to half are obese.⁴⁹ Extensive epidemiological evidence supports a positive association between weight (BMI) and elevated blood pressure.^{40–48} The strength of the relationship between obesity levels and high blood pressure is particularly important in African American men because of their increased risk for both.^{103–107} Many risk factors for both obesity and hypertension can be addressed through the same lifestyle modifications, including dietary changes and increased physical exercise. Higher socioeconomic status has also been found to be protective against obesity.³⁹ In the African American community, cultural dietary patterns and fear of social stigmatization have been found to deter significant changes in diet or exercise lifestyle modification.^{50–54}

3.13 Emerging Knowledge about Disparities in Hypertension

The relationship between standards of masculinity in African American men and hypertension care and treatment has not been studied extensively in the literature. Traditionally, men are more likely to neglect their health compared with women, in part because of a belief that masculinity is associated with strength, independence, a reluctance to seek help, and denial of vulnerability.¹⁰⁸ Health-seeking behaviors such as regular visits to health care providers and treatment for illness are often seen as expressions of helplessness or weakness.

The healthy behaviors that are necessary for those suffering from hypertension may be perceived by men as female in nature.¹⁰⁸ This includes watching food intake (which may be viewed as dieting) and demonstrating weakness by deferring to a medical provider's advice or submitting to regular treatment. It is also possible that men fear the potential side effect of sexual dysfunction as an additional threat to their masculinity when taking hypertension medications.

These fears may be exacerbated in African American men as a result of the psychological damage that has been inflicted on African Americans because of a history of slavery, segregation, racism, and discrimination. African American men, in particular, have suffered from role conflicts due to a personal perception of strength and virility by virtue of being male that is in contrast to the inferior role placed upon them by society.¹⁰⁹ Thus, a reluctance to seek preventive care and secondary preventive treatment after a hypertension diagnosis may be even more pronounced in this population.

Future assessments of the role of perceived racism on health outcomes would be enhanced by including more systematic assessments of exposure to multiple dimensions of racism, including discrimination, stigmatization, social-distancing, and threat and aggression.¹¹⁰

An additional area for further research is the presence of hypertension in middle class African American men. Although education and income seem to serve as protective factors against hypertension for African American women, it is the opposite for African American men.¹¹¹ Moreover, African American men who fall into the second-highest income bracket have the highest rate of hypertension.¹¹¹ It is theorized that the stress of maintaining a higher economic standard is more prevalent in this group as a result of the threat of discrimination, as well as the lack of a safety net for wealthier African American individuals who may not have relatives or other support systems to provide assistance should they have an economic crisis.¹¹¹

Although each of the aforementioned factors has had a demonstrated effect on hypertension rates in African Americans, it is also clear that there is no single factor or consistent combination of factors explaining the difference in rates of hypertension between African Americans and whites.¹¹² Additional research is needed to more fully understand the role and level of influence of psychosocial factors that result in health disparities.



4

Programs with Systems-Level Interventions

4.1 Overview

This chapter presents the results of our search for programs that would be relevant examples when considering the design and/or implementation of systems-level interventions for addressing high blood pressure control among African American men. First, we present lessons learned across all identified programs. We then present information concerning nine programs identified by searching the Internet and through input from program staff and expert panel members. The nine programs selected were based on the services they provide. We conducted in-depth telephone interviews with administrators from each of these programs. When available, we also gathered additional information about programs through reviews of peer-reviewed journal articles, Web sites, evaluations, and other documents provided to us by the programs. An independent evaluation of program quality was not conducted.

Information concerning interviewed programs is followed by summaries of 11 additional programs described in 12 peer-reviewed journal articles that were identified through a MEDLINE search. These programs were included in research studies. In some cases, researchers were comparing two different treatment approaches, so only some of the participants received treatment through the new approach. We include studies that we consider directly relevant (systems-level interventions for African American men) and others that offer useful information, such as lessons learned on recruitment and retention of African American men.

The following sections report on the findings from both the interviewed programs and those programs identified through the electronic literature search. In each of the respective sections, we provide individual program summaries and lessons learned in recruitment, implementation, and if available, evaluation of the programs.

4.2 Summary of Lessons Learned

Presented below is a synthesis of lessons learned that emerged across the 9 interviewed programs and the 11 programs identified through peer-reviewed journal articles. We have divided them into three categories: overall lessons, lessons on program participation by African American men, and lessons on cultural competency. A detailed view of what worked for each of the programs can be found under each of the program's individual summaries.

4.2.1 Overall Lessons

- Having high visibility is important for building trust with program participants and the community. Repeat visibility can be achieved through radio, television, posters, or through faith-based organizations or community events.
- If a program involves members of the community, such as barbers, stylists, community members affiliated with faith organizations, or health educators, providing incentives to these providers increases participation. Also, providing incentives for program participants is an effective means for garnering and maintaining participation.
- It is necessary to go out into the field to learn about the needs of the community and shape program interventions around those needs. For example, if a program promotes eating healthier foods, it is essential to identify places where specific healthier foods can be purchased in the community.
- Continuously evaluating program interventions (through focus groups, surveys, or interviews) is necessary for making improvements to the program to meet the needs of the community.
- Programs should not only identify health problems in program participants, but also provide resources for them to obtain needed services. It is important for programs to provide referrals for participants so they can obtain follow-up care.
- Workplace programs that blend behavioral and environmental interventions to complement and reinforce each other should support the health outcome being shared by the employer and employee. The blending of these approaches may promote behavioral change by enhancing workplace awareness.
- Issues of privacy or confidentiality and liability are critical barriers to more effective follow-up. Providing screening organizations with a confidentiality agreement before the screening may be helpful, or adding a tear off section to the screening form where screeners would record the participant's screening results and then detach it for the participant to have for future reference.
- Using volunteers has its assets and liabilities. Volunteers are often recruited because of their interest and availability without giving consideration to their talents and skills. For example, in one faith-based program, the pastor may have assumed that all registered nurses and faith leaders had the requisite skills and talents to organize and implement the faith-based organization's high blood pressure program. On the basis of the members' self-assessments, this was not always true.

- In many cases, hypertension is not an isolated condition. Therefore, forming partnerships or collaborating with programs focusing on diseases such as diabetes or obesity may increase effectiveness since many of these programs have overlapping aims.
- Forming partnerships that engage and consistently involve the community is essential for program sustainability. For example, community screening events are more likely to be successful and sustainable when they are institutionalized and supported by the community.

The following is a list of nontraditional partnerships:

- **Barbershops:** They offer a racial, ethnic, and gender-specific environment effective for fostering a systems-level change.
- **Faith-based organizations:** These offer access to participants, volunteers to provide services, venues for events, and leadership in the community.
- **African American fraternities and sororities:** These organizations are well-organized and willing to serve and partner with health programs. An increasing number of fraternities and sororities identify health as a major area of focus.
- **Historically Black Colleges and Universities (HBCUs):** HBCUs such as the Morehouse School of Medicine and Jackson State University often have research and community-based programs centered on health disparities.

A more detailed description of these kinds of partnerships can be found in Chapter 5, which presents General Health Resources.

4.2.2 Lessons on Program Participation by African American Men

- Involving family members can help in encouraging men to take charge of their own health.
- Many African Americans do not trust the health care system. It can be helpful to have prominent community members, such as faith leaders, local celebrities, barbers, and trustworthy health educators, participate in and represent programs.
- A peer-to-peer approach sets a good example and encourages African American men to participate in health interventions.
- African American men may be more likely to talk about their health or get a blood pressure screening as a group than individually.
- Programs must be considerate of participants and lower barriers to participation by making interventions and health events as convenient as possible. For example, health events should be held at a time when men are not working. Also, if a community or screening event requires waiting time, it could be used as an opportunity to provide health education so that participants do not feel like they are wasting their time.
- Messages need to be tailored to different African American male audiences. For example, places of worship may be particularly effective for reaching older men, while Web-based education campaigns are more likely to reach younger men.
- Cultural beliefs should not simply be tolerated but understood. Social, religious, and other factors may influence the role of fatalism in the African American community.

- Younger men (aged 18–49 years) or men newly diagnosed with high blood pressure are more difficult to recruit and retain. These groups are more at risk for inadequate education about high blood pressure.

It is feasible to identify, recruit, and follow-up on young, inner-city African American men; however, the process is very labor intensive. An enthusiastic, energetic, committed, and persistent minority staff is essential to recruitment and retention. Staff can bring to the study knowledge, experience, nonjudgmental concern about the health of the population, and an ability to establish rapport with the men and contacts. It is important that the workers are comfortable in the community, but they do not need to be from the community.

4.2.3 Lessons on Cultural Competency

- Program materials need to be culturally relevant and use language familiar to members of the community.
- Visual materials need to be aimed at African American men; materials should include representations of African American men.

4.3 Interviewed Programs

In this section, we summarize the information on the nine programs for which we conducted in-depth telephone interviews. Programs selected were based on whether their efforts contained systems-level interventions for improving hypertension or other cardiovascular diseases. A systems-level intervention was defined as a change in policy, legislation, training, or environmental supports that impacts individual and community-level outcomes. The target population of the program was also examined. Programs selected for an interview generally focused their efforts on the African American population, but all did not exclusively target African American men. The telephone interviews were conducted with program managers who were identified by the organization as being knowledgeable about the program or with principal investigators, if the program was a research study. The interviews lasted for approximately one hour, and discussions focused on the program's goals and objectives, methods of encouraging program participation by the target population, the types of services offered by the program, and the lessons learned.

These nine programs are systems-level blood pressure control interventions for African American men. Programs provide services in settings such as barbershops, faith-based organizations, and community events. Types of service providers include barbers, community health workers, and staff health educators. Some of the services across programs include blood pressure screening, referral to medical providers, and media campaigns. After a summary of two model programs, we present a matrix with details about selected characteristics of each program. The matrix is designed to provide a snapshot of the nine programs with select characteristics to easily access a particular program of interest. Detailed, individual summaries for the nine programs follow and are numbered to correspond to the numbers in the matrix for ease in locating them within this section.

4.3.1 Examples of Program Models

The following two programs are highlighted because they focus specifically on reaching African American men and have been evaluated and found to increase awareness about high blood pressure, increase use of medical care, and increase

adoption of behavior change to support blood pressure reduction. Both programs are community-based, one with more participation from the community. The programs could be used as a stimulus to work with health care providers to address systems issues in serving African American men.

4.3.1.1 Can Barbers Cut Blood Pressure Too?

The goal of this program was to train barbers in the African American community to become community blood pressure specialists. The barbershop plays an important role in the lives of African American men, and the program provides both training and support to barbers about blood pressure. The barbers measure and record blood pressure readings of customers, provide information about high blood pressure, and make referrals to providers. The barbers are supported by a nurse and research assistants. The program has been evaluated through two non-randomized studies. African American men receiving service through the intervention were found to have a decrease in blood pressure and an increase in treatment and control.

Key characteristics:

- Increased awareness of and knowledge about screening for high blood pressure
- Increased follow-up with medical providers
- Engaged a nontraditional population to improve high blood pressure awareness in the community
- Required an incentive structure to encourage barbers to participate

4.3.1.2 Stroke, Hypertension, and Prostate Education Intervention Team (SHAPE-IT)

The goal of this program was to increase community partnerships that can develop methods to address both prostate cancer and stroke among African American men. The program had two phases. The first phase established an advisory council, developed a community action plan, and conducted a community assessment through focus groups. The second phase identified African American men to participate in program interventions, developed community contacts to host activities, and conducted small and large group educational presentations on prostate cancer, hypertension, and stroke. Evaluation of the program found that participants had increased knowledge about high blood pressure, increased ability to discuss high blood pressure with family and health care providers, and increased medical care seeking and lifestyle changes supportive of reducing high blood pressure.

Key characteristics:

- Fostered partnerships between health care providers, community-based organizations, and community members to develop strategies to reduce high blood pressure
- Demonstrated integration of services for education about two diseases affecting the population
- Increased knowledge about high blood pressure
- Increased behavior changes to reduce high blood pressure

4.3.2 Interviewed Programs Matrix

The matrix below provides a guide to the information contained in the summaries for each of the interviewed programs. It is intended to assist the reader in more easily locating programs that may be of particular interest.

Selected Characteristics	1 Can Barbers Cut Dallas, TX	2 CHAMP Baltimore, MD	3 Magic City Birming- ham, AL	4 Power to Live Smart Seattle, WA	5 REACH Atlanta, GA	6 REACH Chicago, IL	7 SHAPE-IT Phila- delphia, PA	8 SHAPP GA	9 Sound Heart Seattle, WA
Sponsoring organization type									
Community-based				●					●
Government					●	●		●	
University	●	●	●				●		
Program maturity (years)	9	29	4	1	8	7	2.5	34	29
Funding									
Federal: CDC		●		●		●	●		●
Federal: other	●		●						
State	●	●					●	●	
County/local					●			●	●
Private	●	●		●					
Setting									
Faith-based organization		●	●		●	●	●		●
Barber shops/beauty salons	●	●		●	●	●	●		
Community centers	●		●			●			
Clinics					●	●	●		
Community events		●	●			●		●	
Service delivery									
Barbers	●	●		●	●			●	
Staff coordinators	●	●	●	●	●	●		●	
Staff nurses	●			●				●	
Staff health educators		●			●	●	●		●
Community health/outreach workers	●			●	●	●			●
Service recipient focus									
Low-income/underserved					●			●	●
African Americans	●	●	●	●	●	●	●		●
Men only	●						●		
Program activities									
Blood pressure screening/monitoring	●	●	●	●	●		●	●	●
Referral to providers	●			●		●	●	●	●
Patient education/media campaign	●	●	●	●	●	●	●	●	●
Outreach		●	●	●	●	●	●	●	
Follow-up					●			●	●
Training community members/ professionals		●		●	●	●		●	
Grants to local orgs			●						
Partners	●		●	●	●		●		
Evaluation	●			●	●	●	●	●	

4.3.3 Individual Program Summaries

Below we present more detailed summary information on the nine interviewed programs containing systems-level changes for addressing blood pressure control among African American men. Information concerning these programs was gathered from key informant interviews and supplemental materials, such as journal articles, Web sites, and program evaluations. Each program summary includes the program's location; period of operation; funding; mission; a description including activities, partnerships, organizational structure, staffing, and target audience; evaluation and research activities; lessons learned; a link to the program's Web site; and contact information. If available, information on the characteristics of participants receiving services from the programs, program expenditures, and publications concerning the program intervention are also listed. Each summary was reviewed by the program's main contact person.

The barbershop being sort of the nerve center of daily social life in many urban centers. If you want to get the word on the street or what the people are thinking or prevailing attitudes about things or controversial issues, that is the place to go.

4.3.3.1 Program 1: Can Barbers Cut Blood Pressure Too? Dallas, Texas

Period of operation: April 2002–December 2008

Funding: The project began with a grant from the Texas Higher Education Coordinating Board (tobacco settlement money that could be used for minority health disparities projects). Funding is also provided by the National Heart, Lung, and Blood Institute and the Donald W. Reynolds Foundation. Other supporters include Visa, the Aetna Foundation, Biovale, and Pfizer. Overall funding totals more than \$4 million.

Mission: The primary goal of the Can Barbers Cut Blood Pressure Too? project is to make barbers in the African American community blood pressure specialists by recording their customers' blood pressure using automated devices, allowing them to identify customers with untreated hypertension and refer them to medical care.

Description:

Activities:

- This project began in response to the Dallas Heart Study, which showed that African American men, particularly those of younger ages, have one of the highest rates of hypertension in Dallas County.
- The project trains, equips, and reimburses barbers to:
 - Record their customers' blood pressure with an automated monitor in the barber chair.
 - Educate their customers about high blood pressure using motivational, peer experience stories. Barbers also provide Blood Pressure Report Cards to their customers and encourage them to bring it to their medical provider.
 - Identify customers with untreated high blood pressure and refer them to medical care.
- The barbershops have information packages with providers and provider networks with which the program has informal partnerships. The barbers distribute the information to customers. A nurse or other intervention staff is on-call 24 hours a day, 7 days a week to help participants with the paperwork needed to obtain services from providers.

- Barbers fill out an encounter form (in triplicate) each time they measure a customer's blood pressure. The top half of the form goes to the customer. The other half of the form contains data that is mailed to the intervention team. These forms also serve as reimbursement forms for the barbers. Barbers get rewarded for measuring blood pressure and for making referrals. The barbers receive \$3 per recorded blood pressure and \$50 per blood pressure report card signed by a medical provider with proof of a new blood pressure prescription.
- Educational materials are all role model or peer experience stories. The teaching message emphasizes motivation more than knowledge.
- To sustain barbershop customers' participation in the program, for each completed exit interview, the customer receives a free haircut and the barber receives a \$5 tip for encouraging customer participation.

Partnerships:

- Informal partnerships were established with various providers to provide access to medical and pharmaceutical care for participants. These partnerships include—
 - Several physicians who had offices within walking distance to the barbershops or were within participants' provider networks. While care is not free, one physician has agreed to see referrals at a discounted rate if the individual is uninsured or underinsured.
 - The county health care provider, Parkland Hospital and Hospital System provides indigent care to residents of Dallas County for a nominal fee.
- To help recruit barbershops to participate in the intervention program, community contacts were made through two local African American barber and barber stylist organizations: the Texas Association of Tonsorial Artists and the Professional Barbers and Stylist Committee.

Organization:

Can Barber Cut Blood Pressure Too? is a project being conducted at the University of Texas Southwestern Medical Center. Sixteen Dallas County Barbershops are participating in the program.

Staffing:

Dr. Ronald Victor, a physician researcher, is the principal investigator of the study. The intervention team consists of an African American nurse and African American research assistants and medical and pre-medical students.

Target audience/participants:

The study aims to collect data from African American men 18 years of age or older. The program has screened approximately 4,000 African American men, of which, approximately 1,000 were found to be hypertensive. A goal of the study was to identify 100 hypertensive African American men who were regular customers at each barbershop.

Characteristics of program participants:

- The average age of a participant with hypertension was 50 years of age or older.
- Approximately one-half to two-thirds of participants were married.
- Approximately 75% of participants had at least a high school education; 75% of participants were employed full time.

- 80%–89% of participants have health insurance.
- Less than half of participants are currently seeing a physician for high blood pressure.
- Barbershop clientele represent an enormous range of socioeconomic backgrounds.

Evaluation and Research: To evaluate the effectiveness and sustainability of the barbershop intervention, two non-randomized studies were conducted to —

- Compare the effectiveness of hypertension interventions (screening and education) in a barbershop setting (enhanced intervention program) versus a traditional setting (comparison group).
- Assess the feasibility of having barbers versus research personnel implement hypertension interventions in a barbershop setting.

African American men in the enhanced intervention group were found to have a significant drop in blood pressure levels compared to the comparison group, which experienced no change in blood pressure. In addition, hypertension treatment and control were found to increase significantly for the enhanced intervention group. Hypertension treatment and control were found to be unchanged for the comparison group.

The barbershop intervention was found to sustain a greater number of participants when barbers rather than research personnel offered blood pressure monitoring to barbershop customers. The study found that barbers were able to successfully incorporate blood pressure screening, health education, and medical referral into their role at the barbershop.

Lessons Learned:

Overall:

Because it is unlikely that a meaningful portion of barbers would participate in an intervention program such as this for free, it is necessary to have a financial incentive. However, some new incentive system would be useful since the fee for service structure that the program used was administratively difficult to maintain.

The success or failure of the project depends on the barbers. The barbers have tremendous ability to affect their customers' health behavior. The barbers should be chosen carefully because some are more motivated than others.

- It is very important to establish credibility. Therefore, the personnel providing support services to the barbers must be credible, and the blood pressure machines must be accurate. This program uses research grade machines which are checked frequently for accuracy by program staff. Accuracy ensures that the barbers are being honest.

To me it is all a matter of really motivating the barbers and how to get the buy-in from the barbers. We have some barbers that are unbelievably fantastic, and basically every man that sits in their chair takes part in the program. Some of the men, you have to show them time and time again that it is not a fluke, and their blood pressure is elevated. We have a lot of highly educated men who will sit in the chair and their blood pressure is high, and they say 'I ran over from work,' or whatever and 'That [it] is just a fluke,' and 'My blood pressure is up.' If they sit in the chair six times in a row, then they start to believe it, and they will eventually do something about it.

- This program could be replicated anywhere but will need financial support from the state health department and/or insurance carriers. The researchers will be investigating approaches to sustainability of the program after the current funding ends. In particular, they will be considering issues of cost-effectiveness.

The men are an easier sell than the barbers, and once the barbers buy into the project they can have tremendous benefit to their customers.

Participation by African American men:

- There are several possible barriers that prevent African American men from participating in this program, including an inaccurate perception that they are not at risk, lack of medical knowledge, fear, masculine view that it not thought to be masculine to worry about blood pressure levels, inadequate insurance, distrust of doctors, and inconvenience.

The key to getting African American male participation is the barber:

If the barbers will just measure the blood pressure, and really try hard, I am very optimistic that the outcomes could be great, and some of the customers will be very easy to convince because they are already motivated about their health. It is not like every man that sits in that chair is going to be a hard sell. Some are going to be already highly motivated and very knowledgeable. All they need is a chance to have their pressure measured accurately on a regular basis.

The barbershops are a wonderful place to try to do preventative medicine and try to get people in their forties or thirties treated so they can live a full life.

Reference:

Hess PL, Reingold JS, Jones J, Fellman MA, Knowles P, Ravenell JE, et al. Barbershops as hypertension detection, referral, and follow-up centers for Black men. *Hypertension* 2007;49:1040–1046

Web site:

<http://www8.utsouthwestern.edu/utsw/cda/dept100467/files/138990.html>

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4.3.3.2 Program 2: Church/Community Health Awareness & Monitoring Program (CHAMP) Baltimore, Maryland

Period of operation: CHAMP began as a National Heart, Lung, and Blood Institute funded demonstration grant in 1979 focusing on hypertension awareness and control. In 1990, the focus shifted to all cardiovascular risk factors. Beginning in 1982, funding was provided through a block grant. The Hair, Heart, & Health component (the focus on training barbers and hair stylists) began in 2006. The program is in its third year of funding.

Funding: Funding for CHAMP is provided by CDC's Preventive Health and Health Services Block Grant and the Maryland Department of Health and Mental Hygiene. Hair, Heart, & Health receives funding from Care First (the local BlueCross BlueShield provider). The funding amount is unavailable.

Mission: To place behavior change strategies in the hands of people who can motivate and assist one another to adopt healthier lifestyles and become more self-reliant.

The program's primary goals are based on the *Healthy People 2010* objectives and the Maryland Nutrition and Physical Activity Plan goals:

- To reduce coronary heart disease deaths
- To increase nutrition and physical activity adoption
- To take part in moderate physical activity at least 30 minutes a day
- To make dietary behavioral changes in eating habits
- To increase fiber and dairy intake
- To increase fruit and vegetable intake

Description:

- The program was created by Dr. Elijah Saunders, a cardiologist, and Dr. B. Waine Kong, former Executive Director of the Association of Black Cardiologists.
- The program is primarily considered to be faith-based since it works primarily with the faith-based organizations in the city of Baltimore. The program also works with senior centers, work sites, and recreation centers.
- The Hair, Heart, & Health program works with inner city barbershops and hair salons.

Activities:

- CHAMP conducts classes that train community and faith-based organization volunteers. Volunteers are called community health advocates. Community health advocates provide diabetes, cholesterol, blood pressure, and stroke education. They perform screenings and educational activities in the community. The CHAMP coordinator meets with community health advocates approximately once a month to update them about any new information that may be available. The program provides a guest speaker each month on a variety of topics.
- Community health advocates conduct blood pressure screenings and monitoring at various sites including barbershops, senior centers, and community recreation centers.

- Community physicians request CHAMP to provide ongoing monitoring of their patients' blood pressure and to support and encourage recommended lifestyle changes.
- CHAMP conducts classes concerning weight loss directly for community members. Classes led by registered dieticians or health educators include an exercise component. Approximately 10% to 15% of the class participants are men.
- Often, individuals participating in classes are informed about the community blood pressure screenings, and those attending screenings are told about classes. Screenings are done mostly in the faith-based organizations. Each faith-based organization has a designated Sunday as the screening and monitoring day.
- Materials are written at the 5th grade level.
- One CHAMP class trains faith-based organization ministers and cooks to modify menus to serve heart-healthier meals at fellowship events.
- CHAMP distributes feedback forms regularly to participants and uses these to make program improvements.
- CHAMP conducts a companion program called Hair, Heart, & Health with funding from Care First (the local BlueCross BlueShield provider). This program trains barbers and hair stylists to provide blood pressure measurement and cardiovascular disease health education and involves 13 participating barbershops. Five CHAMP community health workers assist with paperwork when the barber is too busy. There are some shops where the barber has not been trained, but they allow community health workers to provide the blood pressure screenings and health education at their shop. A total of 1,805 participants were screened in the first year; of those, 76% were African American men. The program has been more successful in reaching men in barbershops than reaching women in hair salons.
- Barbers are compensated by being allowed to keep television sets given to them by the program to provide customers with health messages. Program participants receive points for various activities, including getting their blood pressure taken, seeing a doctor, and lowering their blood pressure. Points can be exchanged for gifts such as gift cards for gas, Wal-Mart, etc.
- The health-related DVDs that are given to the shops are not tailor-made and are limited to what is available. Some clients have complained that the DVDs are not relevant because they do not reflect what occurs in their lives. The incentives that were purchased by the program are distributed by the community health workers.

Partnerships:

- Informal agreements exist with organizations that organize community events which may be venues for blood pressure screenings and educational activities. Partners have included all the faith-based organizations that participate as CHAMP Centers, 100 Black Men, Prince Hall Masonic Temple, and African American fraternities. A major partner is the American Heart Association. The Power To End Stroke and the Red Dress Campaigns are promoted at all the CHAMP outreach sites.

Organization:

- The program is conducted through the University of Maryland, Department of Family Medicine and Department of Medicine. The CHAMP office is located in the community near a mass transit hub to make it easy for community health advocates to access.

Staffing:

- A health educator and an administrator work full time. Dieticians and exercise instructors from the community are consultants. The program also employs two part-time community health workers who work with the volunteer community health advocates.
- The Hair, Heart, & Health Program employs one full-time coordinator and four part-time community health workers.
- All staff are employed by the University of Maryland.
- Services are provided by approximately 75 volunteers (community health advocates).

Characteristics of program participants:

- Primarily individuals from the African American community, 18 years of age or older.
- Approximately one-third are low-income.
- The program reaches approximately 3,000 to 4,000 individuals per year.
- The Hair, Heart, & Health program has seen approximately 1,800 individuals. The other CHAMP programs see approximately 2,000 to 3,000 individuals per year.

Evaluation and Research: The program reports quarterly to the state but lacks the resources and funding to more substantially evaluate its programs.

Lessons Learned:

Overall:

It would be very hard to sustain the program at the level at which it is currently operating without funding. Many of the faith-based organizations have health ministries so the screening and monitoring would continue at those places of worship. Many of the barbers would continue because they have the tools and equipment, but the health education component would not be sustained without funding. There are no other programs like CHAMP in Baltimore. CHAMP provides the health education in the community sites.

- Volunteers are motivated by the opportunity to work in the medical field.

The volunteers want to help others and.... many of them had dreams of being a doctor or nurse and just didn't reach that goal and this just gives them a great deal of satisfaction knowing that they are working in the medical field, in a sense, and helping their fellow man..... This is something that is important to them and many of them look at this as their health ministry

- One of the most important lessons is that visual learning and hands-on learning are more effective than listening to lectures.

Participation by African American men:

- The Hair, Heart, & Health program component has been much more successful in reaching African American men than the faith-based component. To reach African American men, community advocates need to go to barbershops, senior centers, and community recreation centers, and to have a presence at community events such as those sponsored by 100 Black Men.

One of the things that we learned is that we are not reaching our African American men with just targeting churches.... [We] expanded it to involve other community sites so that we were able to reach African American men. We have actually done barbershops and hair salons, but we sent in our community advocates where we were not training the barbers and stylists.... We also go to senior centers, community recreation centers and various other community sites.

- In general, female community health workers are better vessels than men, when it comes to reaching out to the men. Men tend to be more likely to participate in the program if the community health advocate or community health worker is a physically attractive woman. This is true in both the barbershops and faith-based organizations.
- African American men are motivated to participate by conducting programs in familiar settings.
- Men may be held back from participating based on fear of others finding out about their having high blood pressure. Finding out about their age and weight does not seem to bother them to the extent that it seems to bother women.
- Men tend to prefer materials that are visual. They like posters, brief videos, and demonstrations in classes. They tend to like the discussions less.
- Barbers participate partially because they see one of their roles as being a community leader.

Cultural competency:

- The program tries to include materials that predominately include African Americans, but it can be difficult to find a sufficient variety of materials and videos.

Web sites containing program summary:

<http://medschool.umaryland.edu/champ/>
www.healthfreedominc.com

Contact:

C.H.A.M.P. Business Center at Park Circle
2901 Druid Park Drive Suite A-204
Baltimore, MD 21215
Voice: 410-669-6340
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The men are an easier sell than the barbers, and once the barbers buy into the project they can have tremendous benefit to their customers.

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4.3.3.3 Program 3: Magic City Stroke Prevention Project

Birmingham, Alabama

Period of operation: August 2004–July 2008

Funding: 4-years, \$2.4 million, Community Initiative to Eliminate Stroke (CITIES) cooperative agreement from the U.S. Department of Health and Human Services, Office of Minority Health.

Mission: Bridging the gap between public health science and practice in risk reduction across the life span among African-American and other underserved communities, to determine the benefits of sustained efforts to build community capacity and to reduce risk factors within underserved communities. Goals include increasing community awareness and outreach and serving as a coordinator in providing residents with information and activities relating to stroke prevention.

Description:

Activities:

- The project produces health messages for radio and TV. Message development was based on a review of the literature and materials from the National Heart, Lung, and Blood Institute's No Stroke campaign focusing on African Americans. Messages were developed in two phases. Phase 1 created a message that emphasized that stroke is a medical emergency and focused on knowing what a stroke looks like and calling 9-1-1. The second phase emphasized messages about risk factors related to stroke such as hypertension, diabetes, high blood cholesterol, and obesity.
- The project helped sponsor a regional championship football game between two HBCUs, permitted the airing of the project's logo, tag line, and a 30-second commercial during the televised event; a link to the project's Web site was also associated with the event.
- Funds were provided for home blood pressure monitors for distribution by the county health department. A local hospital is evaluating barriers to refilling blood pressure medication through a grant from the program.
- The project implemented the American Heart Association's Search Your Heart Program in partnership with Congregations for Public Health. This is a faith-based curriculum that delivers knowledge and action steps to encourage a reduction in risk factors for heart disease and stroke among African Americans.

I think that the key, to me, of our success has been using the community health advocates. First of all...this is someone you go to church with and many times participants are more honest with them than they are with health professionals. I think that is one of the key things is that using community people that they know and trust.

- A mini-grant program provides one year of funding to 22 community organizations conducting work related to hypertension and stroke. Grantees included faith-based organizations, sororities and fraternities, and neighborhood associations. Numerous programs that started through this funding continued after funding ended, proving that initiatives were sustainable.
- Web site provides information concerning stroke and stroke prevention activities.
- Three work groups were organized. The first assists with the development of the media campaigns and provides feedback on materials during production. The second work group is informal and has relationships with fire rescue stations and Birmingham Health Care, which has a mobile van and several clinics; both agencies have agreed to be identified as places that individuals can go to have their blood pressure checked. The third work group identifies and trains community residents to help administer the AHA's Search Your Heart Program and to administer a survey developed by the project to evaluate the program. Outreach specialists are paid by the project and are affiliated with Congregations for Public Health.
- Partnership organizations were involved in many important project functions including developing scripts for radio PSAs, implementing community projects, and coordinating health education media placement for large athletic events.

Partnerships:

- American Heart Association and American Stroke Association
- A local faith-based umbrella organization (Congregations for Public Health) to coordinate programs in faith-based organizations, neighborhood associations, sororities and fraternities, the city of Birmingham Division of Youth Services, the Southwest Athletic Conference (SWAC), the Birmingham/ Huntsville AME district, and the University of Alabama at Birmingham (UAB) Comprehensive Stroke Center
- Local health care providers such as the county hospital (Cooper Green-Mercy Hospital) and the Jefferson County Department of Health
- Various television and radio media outlets including ESPN
- 100 Black Men of Birmingham

Organization:

Housed within UAB's Center for the Study of Community Health

Staffing:

Housed in the UAB School of Public Health, virtually all day-to-day operations are managed by two full-time staff (program manager and coordinator). Staff also includes a principal investigator and research assistants.

Target audience/participants:

Male and female African Americans in Birmingham, over the age of 35. Of the 250,000 residents of Birmingham, 75% are African American. Of these, 40% are men.

Evaluation and Research: No formal evaluation has been conducted. Telephone interviews collected information on program awareness/branding and on knowledge concerning high blood pressure and stroke awareness. In late 2005, 603 completions were collected.

Lessons Learned:

Overall:

- Tailoring messages specifically to Birmingham, including local people in videos and utilizing local radio personalities in radio messages, have helped to make them well received.
- To help promote trust between organizations, it is necessary to plan the implementation of new community initiatives with the groups that are going to be directly involved.
- It is challenging to do community-based programming from a large research-driven university.
- Even though project funding has ended, project recognition will continue through \$10,000 grants provided to 15 community organizations. The infrastructure and knowledge developed through grants to faith-based organizations and civic organizations will allow for continued dissemination of health information and health screenings. In addition, grant recipients gained useful experience in grant writing through this process. These skills will strengthen their ability to successfully compete for new resources.

Participation by African American men:

- To reach African American men, televised messages were aired on ESPN during a football game produced by the Southwestern Athletic Conference.

Cultural competency:

- Community members should be asked for feedback on materials. The project's leadership consults with an African American neurologist who has many African American patients and provides advice concerning the best approaches for educating African Americans about stroke.

Web site:

<http://www.magiccitystroke.com/page.asp?id=19>

Contact:

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4.3.3.4 Program 4: Power to Live Smart program King and Pierce Counties, Washington

Period of operation: April 2007–present

Funding: Funding is provided by CDC and the American Heart Association (AHA). CDC funds the majority of the program on a 5-year funding cycle. However, work plans must be submitted each year as the funding must be renewed annually. AHA has funded portions of the training sessions, materials, and some of the incentives for barbers and stylists. The funding amount is unavailable.

Mission: The Power to Live Smart program is designed to raise awareness of the risk factors for heart disease and stroke among African Americans in King and Pierce Counties in Washington State. The program coordinates local African American nurses who, in turn, train barbers and stylists in African American communities to take their clients' blood pressure readings and provide them with information on heart disease and stroke. By doing so, the program hopes to raise awareness of the signs and symptoms of stroke and heart disease, provide support for behavior change, and encourage at-risk individuals to seek follow-up care from health professionals.

Description:

Activities:

- Specific barbershops and salons were targeted by nurses on the basis of their knowledge of the community. Nurses held training course for 20 barbers and stylists who agreed to take part in the program. Training sessions (of one and a half hours) were held from April 2007 to June 2007. During the training, barbers and stylists were given automated blood pressure monitors with built-in cuffs and received instruction on how to use them. Participants also received instruction on how to communicate with clients about the results of their blood pressure readings, and about risk factors for heart disease and stroke.
- Barbers and stylists at 10 shops throughout Pierce and King Counties informed clients that blood pressure readings could be done in their shops. Clients who wished to do so had their blood pressure tested at the salon or barbershop. Between April 2007 and September 2007, over 125 blood pressure readings were conducted. The readings were recorded on anonymous log sheets by clients or stylists
- Five thousand counter cards were ordered for distribution throughout the target community at events, such as Martin Luther King, Jr. Day celebrations. The cards described the program, directed people to more information about the program, and provided a list of shops that are taking part in the program.
- Educational materials published by AHA were distributed to clients at the barbershops and salons.
- Nurses visited each barbershop and salon once or more per quarter to provide support, information, and additional educational materials.
- Barbers and stylists were asked to keep track of the number of clients screened and the number of elevated readings found through screening. Incentives in the form of fitness tracking books and AHA cookbooks (valued at approximately \$20 each) were provided to barbers and stylists who attended the follow-up training sessions in March 2008.

- The Washington State Health Department produced a media campaign designed to raise awareness in the African American community about heart disease and stroke. The campaign did not specifically talk about going to barbershops and beauty salons for readings, but it did target the same population about this issue.

Partnerships:

- Cultural Health Initiative Committee—part of AHA
- Ebony Nurses Association in Pierce County—an association of African American nurses
- Mary Mahoney Professional Nurses Organization in King County—an association for African American nurses

Organization:

Housed within the Washington State Department of Health

Staffing:

At the Department of Health, there is one primary staff member (health educator) who spends about 25%–30% of their time on this project. The health educator coordinates the administrative aspects of the project (e.g., contracts), reports to the Cultural Health Initiatives Committee, coordinates with contractors and nurses, reports to the Department of Health on the status of the program, and reports to the steering committee for the Department of Health. This steering committee is composed on external stakeholders identified by the Department of Health.

Through a private business contractual relationship, a nurse consultant coordinates training and outreach for the nurses that communicate, and interacts with the barbershops and beauty salons and serves as their primary point of contact. The nurses, who provide services in the community are volunteers, although they are paid a stipend for their travel costs.

An American Heart Association volunteer, who is a researcher from the University of Washington (and is not paid through the program), provides general consultation. Department of Health epidemiology staff have coordinated evaluation efforts over the course of the project.

The day-to-day operations are conducted by the barbers and stylists in the 10 shops in King and Pierce Counties. Barbers and stylists may receive incentives on the basis of the number of clients screened.

Target audience/participants:

African Americans (women and men) in King and Pierce Counties of the state of Washington. No data is available about the socioeconomic status or educational level of the individuals who have participated in the program.

Evaluation and Research: Two types of evaluations were conducted of this program. The first evaluated the training program. Pre- and post-tests were given to stylists and barbers at training sessions to assess their level of knowledge gained.

A qualitative evaluation was conducted (in the form of interviews) to assess the program's progress. Thus far, the only individuals who have provided evaluation data have been the nurses, barbers, and stylists involved in the program. Additional data were collected to assess whether the program is succeeding in its mission and objectives, whether the target audience is aware of the program, and how involved staff and the cultural health initiatives community are in the project.

A process evaluation was conducted by collecting tally sheets to assess the number of clients screened and the number of individuals found with elevated blood pressure.

A total of 123 blood pressure measures were recorded at seven salons/shops between April 2007 and September 2007. Of these, 19% were in the normal range; 44% were in the pre-hypertension range; 21% were in the hypertension stage-1 range; and 15% were in the hypertension stage-2 range. Of those who had a value in the hypertension range, about one-third were under the age of 45.

Future evaluation efforts are being coordinated by evaluators from the Department of Health. One of the primary objectives of the program will be to increase the percentage of African Americans who recognize the risk factors and symptoms of heart disease and stroke from an unknown baseline to 70% by June 2008.

Lessons Learned:

Overall:

- Barbers and stylists would like to have more support in communicating health information to clients. The program plans to provide ongoing training and more frequent communication in the future. The program has already held one refresher training course.
- Nurses need to receive stipends for travel to the barbershops and beauty salons more consistently. In the past, this has not been highly regulated, which has resulted in more irregular visits from nurses. As a result, many barbers and stylists have reported their lack of confidence in communicating health information because they feel that they have not received enough training and guidance.
- The program seeks to develop new ways to recruit more clients to participate in blood pressure screenings since they have not screened as many clients as they anticipated (123 screened compared to the goal of 200).
- The project would be enhanced if it could be more involved in providing further resources to those with elevated blood pressure after they are diagnosed; however, the project has already begun offering a list of community health centers that can provide low-cost follow-up care.

- The project's outreach would be strengthened if it joined with other health-related programs targeting African Americans in the Puget Sound area. Other interventions in the area that focus on diabetes and other health conditions have overlapping aims, so it may be useful to combine resources with these programs.
- It would be helpful to have nurses more available to clients who have had blood pressure screenings so that they can serve as a resource for them.

Participation by African American men:

- The key informant did not provide information specifically pertaining to African American men. Women are more likely to participate in the blood pressure screening program; the male participation rate is about 22%. Of particular interest, however, is that one of the barbershops had the highest number of readings completed.
- Having pictures of men on materials helps recruit men, as they feel that the program is geared towards them.
- Including prominent men in the community as the “public face” of the program can also help cater to men in the community.

Cultural competency:

- The key informant did not feel she could respond to whether the program was culturally competent or not because it had not been formally assessed. Although it does not guarantee cultural competency, the nurse consultant and volunteer nurses are themselves African American and have worked predominantly with African American populations throughout their careers.

Web site:

<http://www.americanheart.org/presenter.jhtml?identifier=3047257>

Contact:

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 Heart Disease and Stroke Prevention Program
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4.3.3.5 Program 5: Racial and Ethnic Approaches to Community Health (REACH) Cardiovascular Wellness Centers

Atlanta Empowerment Zone (Fulton County, Georgia, including the city of Atlanta)

Period of operation: 1999–present

Funding: Six years of grant funding were provided through the Fulton County Department of Health and Wellness, ending September 2007. The program is ongoing, but financial incentives to those who are taking readings have been discontinued. The funding amount is unavailable.

Mission: To establish lay health promotion specialists through organizing and training individuals in faith-based organizations, beauty salons, and barbershops in the Atlanta Empowerment Zone.

Description:

Activities:

- Individuals were recruited from faith-based organizations, barbershops, and beauty salons in the empowerment zone and provided with an 8-hour course of training on the cardiovascular system, cardiovascular health, and performing blood pressure screenings.
- Barbershops were targeted as a location to reach African American men because they are known as a place for social gathering, centrally located, and non-threatening. It was believed that the health message would be well received from a barber because they are already known and trusted.
- Those who received the training agreed to collect, within their business, blood pressure readings from at least 40 individuals a month, and provide the results of the readings to the program.
- An educational brochure, *Seven Ways to a Healthy Heart*, was made available for distribution to customers.
- Almost 3,000 individuals were screened in 2006.
- Through a separate Reach for Women grant, volunteers received \$50 for every 40 blood pressure readings that were obtained.
- The program provided at least two health fairs annually to increase awareness and the level of information in the community concerning cardiovascular health.
- Health promotion specialists (the individuals who do the blood pressure readings) were recruited by going door-to-door in the Empowerment Zone.
- Follow-up was provided to those who had their blood pressure checked, particularly among those with elevated blood pressure, to make sure they contacted their physician and had their pressure checked again.

Partnerships:

- Fulton County Department of Health and Wellness
- American Heart Association
- National Medical Association
- Association of Black Cardiologists
- Local organizations

Organization:

The Cardiovascular Wellness Centers were established through a subcontract with the Reach for Wellness Program, Fulton County Department of Health and Wellness. This program is a component of the Association of Black Cardiologists' Division of Community Programs.

Staffing:

Includes two full-time staff. Over 50 volunteers were trained to measure blood pressure.

Target audience/participants:

Individuals who were easily accessible were recruited as participants in the program and could be a resource for the community residing in the Atlanta Empowerment Zone. Individuals in the community are typically living at the poverty level or just above.

Evaluation and Research: The number of individuals screened with high blood pressure and their outcomes were counted. A participant's blood pressure was taken one month after having been screened and given educational information to see if it had lowered. Evaluation activities concluded that men screened were more likely to have high blood pressure than women and that many of these individuals were less than 35 years of age.

Lessons Learned:

Overall:

- The financial incentive helped maintain the motivation among those taking blood pressure readings.
- Conducting monthly meetings to bring everyone together and share ideas improved motivation and participation.
- Some barbers may not to participate because it takes time away from their business.
- Individuals may not want to get screened because they do not believe that they have a problem. The awareness and educational materials help with this.
- African American men in particular may be averse to taking medication; therefore, the educational component is critical when teaching that the condition may be manageable through diet and exercise.
- African Americans need to understand that they are more likely to die of hypertension than cancer or AIDS.
- Participants are more likely to trust the information they receive from a member of the community than from a doctor or other health care provider
- Motivating others requires one person who is excited about what he or she is doing.
- It is very difficult to raise money for health promotion programs related to African American men. The centers could not find a foundation or a drug company to fund this initiative.

Participation by African American men:

- Participation by African American men was supported through the use of barbershops as a project venue and by including African American men as health promotion specialists.

Cultural competency:

- Videos on cultural competency are produced and shown mostly to providers. Scenarios are created and providers are asked to respond to them.

Web site:

<http://www.abcardio.org/reach.htm>

Contact:

Association of Black Cardiologists, Inc.
5355 Hunter Road
Atlanta, GA 30349
Phone: 404-201-6643
Fax: 404-201-6601
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4.3.3.6 Program 6: Chicago REACH 2010/Lawndale Health Promotion Project

Chicago, Illinois

Period of operation: December 2000–December 2007

Funding: A five-year grant and an additional 2-year grant funded by CDC. Additional REACH funding from CDC was received to implement promising practices to the existing and new communities' efforts. Overall, the funding available was reduced by 50% from the original amount for the REACH 2010. The funding amount is unavailable.

Mission: To use a community-based prevention approach to eliminate health disparities by reducing and preventing illnesses linked to type 2 diabetes and cardiovascular related diseases among African Americans and Hispanics. The project hopes to improve the health status in the North and South Lawndale neighborhoods of Chicago.

Description:

Activities:

- Phase 1 (the first year) involved a community-based planning process to develop a community action plan; Phase 2 (years 2 through 5) involved the implementation of the community action plan.
- Community participation began with the initial writing of the competitive grant proposal to the CDC and continued throughout the project.
- A planning council was created for the purpose of promoting continuity and structure to community involvement in Phase 1 activities. The council was composed of representatives from more than 50 community agencies and organizations that may play a role in disease prevention among community members. The planning council was charged with providing guidance and feedback during a comprehensive, multilevel assessment of both needs and

resources within the project's community area. The major aim of the community needs assessment was to enhance the understanding of the multitude of factors that influence cardiovascular disease and diabetes in individuals living in the community area.

- Needs assessment data were gathered through focus groups and key informant interviews, the Behavioral Risk Factor Surveillance System (BRFSS), and Community Landscape Asset Mapping (CLAM). CLAM is a community-mapping tool used to identify community-level opportunities for and barriers to health behaviors.
- The initial development of the project was based on the results of the needs assessment, and a community action plan was developed and implemented on the basis of the results.
- Community outreach services were provided to increase access and referral to health providers in the community and to assist individuals in securing a medical home through one of four local clinics that provide services either free or on a sliding fee scale.
- Outreach workers conducted classes (e.g., diabetes prevention, cardiovascular disease prevention, nutrition, and fitness) and risk assessments and referral to neighborhood providers if needed. Initially outreach workers went door-to-door to reach community residents.
- Outreach workers offered educational classes at local community-based organizations, schools, and churches, and built on the program structure and resources available through these other organizations.
- The project hired community residents as peer case managers and trained them to conduct health promotion and prevention classes around cardiovascular disease. The peer case managers were housed at the two health providers in the community and served as liaisons between the patients and providers. They managed and helped clients become compliant with standards of care and educated those who are at risk of developing cardiovascular disease. They monitored the care received by their clients, ensured that they received proper referrals and testing, and helped clients develop their own goals for maintaining a healthier lifestyle along with their medical regimen.
- Physicians working with case managers were provided training in patient communication and cultural competency.
- Patients were recruited into case management by their provider, with the case manager following up with a telephone call to enroll the individual.
- Outreach workers, who worked with community-based organizations, particularly senior centers, conducted community capacity building. Businesses in the community provided space for meetings and trainings. Restaurants put up posters and made brochures available to customers.
- Case managers and outreach workers formed a task force for patient education to ensure that written media campaign materials were linguistically appropriate and to identify which materials were most effective.
- Services also included diabetes and hypertension screenings, information and referral services, nutrition and cooking classes, health education classes, exercise programs, and walking groups.

Partnerships:

- All blood pressure screening equipment used in the program was obtained through collaboration with local community-based organizations and health providers. The program worked with two local health providers, and two local community-based organizations, in the North and South Lawndale area. Partnerships with the two health providers were formal. A formal contract agreement specifying services, roles, and responsibilities was signed.
- The program's case managers were housed at one of the four local health providers in the communities. The case managers were paid by the program but were hired by the providers so that they would be integrated as integral and valued members of the clinic team.
- Informal partnerships were established with five local barbershops to provide educational materials to barbers that have been trained in cardiovascular disease prevention and education.
- Other partnerships included schools, faith-based organizations, and beauty shops.
- A majority of these partners were involved in the implementation phase of the program.

Organization:

Housed within the Chicago Department of Public Health (CDPH) under the Chronic Disease Initiative. A Community Council comprised of community residents oversaw the program. All CDPH program staff attended the Community Council meetings.

Staffing:

Staff included a director, community coordinator, nurse manager, administrative assistant, and faith-health coordinator who were housed at the CDPH but who worked in the community. In the community, there were four additional outreach workers and four case managers. In-kind services of a nutritionist and a fitness instructor from the CDPH were also available.

Target audience/participants:

African American and Hispanic adults living in the North and South Lawndale areas of Chicago. North Lawndale is 90% African American, and South Lawndale is 90% Hispanic. Together they include approximately 1,000 residents. Approximately 23% of participants were African American men. The income level of residents in the community is generally low to middle; half are below the poverty level. Approximately 60% are high school graduates.

Evaluation and Research: An evaluation was conducted by the University of Illinois at Chicago. They conducted pre- and post-tests every 6 months to a year with case management patients, triangulating survey data with the patients' charts. They also conducted the CLAM and did assessments to determine community capacity. The evaluation findings from this community-based participatory research project have been published and presented at various conferences.

We have discovered that [motivation] is only going to be as good as your field staff....Individuals see a face from their community that is promoting this... In terms of case managers, they are known—in their own words—to hound some patients, and some patients will say, 'I know she was hounding me,' and they know they care about them. An... actual individual who... cares for them and [is] looking out for them plays a major role

Lessons Learned:

Overall:

- The comprehensive community assessment employing multilevel data sources suggests a need for health promotion programs that are developed with input from the community members they will serve, and that are long-term, well-advertised, and easily accessible.
- Health information needs to be presented in a user-friendly format that is easily understood and culturally appropriate.
- It is important to identify partners, particularly clinicians, up-front to make sure they have interest and buy-in before starting the program.
- Partner with schools in the community because children can impact their parent's behaviors.
- Have staff that are representative of the target audience; identify African American men that can work as case managers or outreach workers.
- Community residents like to attend blood pressure screening events. Many residents do not have health insurance and see community health fairs as an opportunity to have their blood pressure measured and receive additional health education information. Community health events were held at local parks, schools, and community organizations.
- Individuals are held back from participating in the program because their health becomes secondary to day-to-day issues such as getting a job, paying rent, etc.
- Medical providers showed some resistance to having to go through communication training and complained that they did not have time to go. However, overall, the providers found the training useful.

Participation by African American men:

- Hiring the right person to deliver program services motivates participants. Outreach workers do not always have advanced education, but they are able to relate to the participants and successfully deliver the program's message.

Cultural competency:

- Using local residents as peer case managers helped residents feel more welcome at the clinic and better taken care of. Representatives were of the same race or ethnicity as participants.
- Community trust was generated because the Department of Public Health and the University of Illinois agreed that all data obtained through the program belonged to the residents and could only be used with their permission.

Reference:

Levy SR, Anderson EE, Issel LM, Willis MA, Dancy BL, Jacobson KM, et al. Using Multilevel, Multisource Needs Assessment Data for Planning Community Interventions. *Health Promot Pract* 2004;5(1):59–68.

Websites:

<http://www.uic.edu/cuppa/gci/uicni/partnerships/current%20projects/REACH%202010%20Lawndale%20Health%20Promotion%20Project.htm>

http://www.cdc.gov/reach/pdf/IL_Lawndale.pdf

http://apha.confex.com/apha/130am/techprogram/paper_45984.htm

http://apha.confex.com/apha/132am/techprogram/paper_78793.htm

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4.3.3.7 Program 7: Stroke, Hypertension, and Prostate Education Intervention Team (SHAPE-IT) Philadelphia, Pennsylvania

Period of operation: January 2005–June 2007

Funding: The SHAPE-IT program is a Pennsylvania State Department of Health–funded disparities initiative that combines CDC funding for prostate cancer control and cardiovascular risk reduction. SHAPE-IT received a total of \$1.2 million in funding from these sources which ended in June 2007.

SHAPE-IT continues to operate through a partnership with a CDC-funded community organization that targets cardiovascular disease in families. The program is seeking additional funding to expand beyond the initially targeted zip code areas.

Mission: The primary goal of SHAPE-IT was to foster partnerships between community-based organizations, community members, and health care providers to design and implement strategies that can reduce prostate cancer and stroke among African American men 35 years of age and older in North and West Philadelphia.

Aims of SHAPE-IT included:

- Reaching 25% of the target population of 27,000 African American men age 35 and over in targeted zip codes.
- Integrating community organizations that have the infrastructure to support community-based programs through the State Health Improvement Project Partners program.
- Developing multiple strategies that are seen by target population as relevant for stroke and prostate cancer prevention.
- Identifying factors related to planning, developing, and implementing a comprehensive community action plan designed to increase knowledge, change attitudes, modify behaviors, and support a social change process related to hypertension, stroke, and prostate cancer prevention in African American men.

- Describing individual attitudes, beliefs, behaviors, barriers, opportunities, and assets related to education, prevention, and compliance with treatment and screening recommendations.

Description:

Activities:

- Phase 1 (Design):
 - Established a project advisory council (PAC) of community members and organizational representatives including men who were hypertensive and prostate cancer survivors. The PAC provided guidance to the SHAPE-IT staff during program development, implementation, and evaluation. They played a particularly important role in recruiting African American men into the program. Two co-chairs of the PAC served as liaisons between the PAC and the project team. Staff held monthly meetings and made calls to the co-chairs. Co-chairs were given \$25 and provided dinner each time they met.
 - Developed a community action plan (available through the link below) presenting a shared responsibility model of community health planning, establishing partnerships, and enhancing cultural relevance of activities.
 - Conducted focus groups with African American men and key informant interviews with PAC members and other representatives from various community health organizations to assess community and individual beliefs, assets, and needs. Findings from the focus groups and interviews guided the educational interventions the program formulated.
- Phase 2 (Implementation):
 - Implementation of identified recruitment and retention strategies of African American men into education sessions. Community-based participatory research (CBPR) methodology was used to reach African American men residing in targeted zip codes.
 - Through PAC members, SHAPE-IT made contacts and strong relationships with various community sites (e.g., barbershops, faith-based organizations, automotive repair shops). These sites promoted SHAPE-IT and played a large role in recruiting African American men.
 - Two special day-long events were held to recruit men. One occurred during Black History Month at a local college where African American leaders who had suffered from prostate cancer or stroke were honored. A tribute was also held for family members who had lost their lives to prostate cancer or stroke. The event included entertainment, lectures, and demonstrations.
 - Implementation of large and small group educational programs on hypertension, stroke, and prostate cancer. As an incentive, men who participated in the educational sessions were entered into raffles to win prizes such as bicycles and home exercise equipment.
 - Large group sessions occurred at faith-based organizations, daycare centers, health centers, and fraternal organizations. These sessions consisted of lectures, plays, videos, and educational handouts. Many of the handouts came from the Health Promotion Council of Southeastern Pennsylvania. Blood pressure screenings and a Men's Health Night Out were also held. Large group sessions were used to recruit men into small group sessions.

- Small interactive groups of approximately 20 men were held at a variety of locations such as city health centers, faith-based organizations, barbershops and fraternal organizations. They initially consisted of two 2-hour sessions, but were later condensed into one 3-hour session. Sessions focused on educating men on hypertension, stroke, and prostate cancer. Blood pressure screenings were provided, and men were encouraged to make an appointment with a health provider. Participants were often referred to the Philadelphia Department of Public Health health centers, which see patients regardless of their ability to pay.
- SHAPE-IT hosted special events such as a Men's Wellness Dinner and Tribute Events at Girard College and Temple University.

Partnerships:

Informal partnerships included:

- Member organizations on the PAC such as the Masons and the NAACP
- The American Cancer Society
- Opportunities Industrial Council
- Project Housing, Opportunities for Employment, Medical Care, Education (HOME)
- The American Heart Association
- A network of barbershops, automotive repair shops, drug and alcohol recovery programs, and other venues for the recruitment of African American men
- Faith-based organizations and recovery houses

Formal partnerships (with contractual agreements) included:

- The Health Promotion Council of Southeastern Pennsylvania
- Philadelphia Department of Public Health
- A local affiliate of the American Cancer Society
- State Health Improvement Project Partners including Nicetown-Tioga and Haddington Community Health Initiatives
- Thomas Jefferson University and Thomas Jefferson University Hospital

These partnerships served a variety of roles such as providing staff to the PAC, providing venues for programs, recruiting program participants, providing staff for events and programs, and giving advice on program content.

Organization:

The SHAPE-IT program consisted of a project team and the PAC. It was housed at the Thomas Jefferson University and Hospital. Project team members were from various departments within Thomas Jefferson and the Health Promotion Council of Southeastern Pennsylvania (including the Department of Family and Community Medicine and the Office to Advance Population Health).

The PAC consisted of 25 members, including two co-chairs. Members included African American representatives from organizations such as the Masons, the NAACP, the State Health Improvement Project, the Huntington Community Health Project, the Nicetown-Tioga Improvement Team, and the American Cancer Society, as well as clergy members.

We have discovered that [motivation] is only going to be as good as your field staff....Individuals see a face from their community that is promoting this... In terms of case managers they are known, in their own words, to bound some patients and some patients will say I know she was bounding me and they know they care about them. An... actual individual who...cares for them and looking out for them plays a major role.

Staffing:

Dr. James Plumb was the principal investigator. Staff included four to five full-time employees with three full-time African American men as health educators. Program evaluators came from the Health Promotion Council and Thomas Jefferson University.

Target audience/participants:

SHAPE-IT reached 6,750 men, 25% of a population of 27,000 African American men age 35 year of age and over in targeted zip codes of Philadelphia, including 900 men who were reached with a comprehensive small group workshop.

Characteristics of program participants:

- Approximately 75% were low income
- More likely to be unemployed, live in poverty, and have less formal education than men living in other zip codes
- More likely to not have a regular source of care and to not have seen a primary care physician in the last year than men living in other zip codes
- More likely to report extreme stress than men living in other zip codes

Evaluation and Research: Data collected to evaluate the effectiveness of the program found that approximately 64% of participants had elevated blood pressure. Key findings from a pencil-and-paper pre-test and 2-month telephone follow-up survey of participants from the small group sessions regarding knowledge, attitudes, and behaviors include the following:

- Knowledge (subset of 173 men)
 - Key knowledge was improved and maintained 2 months after the program.
 - Men demonstrated a high level of knowledge during the pre-test, indicating that obtaining care may be more of an attitude and behavior issue. For example, 94% of men at the pre-test agreed that African American men should be tested for high blood pressure and that controlling hypertension reduces the chances of having a stroke.
- Attitudes (subset of 173 men)
 - During the 2-month follow-up, men indicated an increased reliance on family for health advice, a greater degree of comfort in talking to their partner and other men about health issues, and greater ability to communicate well with doctors; more thought "my doctor and I work together."
- Behaviors (subset of 181 men)
 - Actions taken during the 2-month follow-up period included blood pressure measured (87%), scheduling appointments (86%), seeing a provider (76%), and obtaining a health care provider for those who did not have one (59%).
 - Lifestyle changes during the 2-month follow-up period included exercising more often (68%), eating more fruits and vegetables (73%), cutting back on salt (81%), taking blood pressure medications as recommended (92%), quitting smoking (20%), reducing dietary fat (74%), using stress management techniques more often (52%), reducing the amount of weekly alcohol consumption (45%), and losing 5 pounds or more (37%).

Data collected on attendance showed that changing the format of the small group sessions from two separate short sessions to one longer session increased attendance from 40% at both short sessions to nearly 100% at the extended session.

The final process evaluation was a series of focus groups with PAC members, program participants, and program leadership and staff. Key findings for program replication or modification are listed below.

Staff Training and Qualifications:

- Make sure educators are well trained. Trained educators equal an effective program.
- Make sure you find health educators who are invested in and passionate about the program.
- The lay leader component was not as effective as had been hoped. This may have been due to recruitment strategies as well as leadership commitment to the lay health strategy. Consider training PAC members as community champions rather than using lay leaders.
- Provide cultural competence training for all project staff and PAC leadership in the beginning of the project.

Project Advisory Council:

- Diversity of the PAC is key.
- Involve PAC to an even greater degree. Involvement should be active, not just advisory. Identify and create opportunities for PAC members to be actively involved in the project.
- PAC incentives are important. Consider signing Memorandum of Understanding (MOU) with members of what they agree to do as a PAC member. .
- Add PAC membership on a continual basis. Choosing PAC members from focus group participants and people known to be active in the community was effective, but interested people need to be continually recruited. As PAC members become inactive, particularly those from the community, they should be replaced. Recruit from men who attend programs (develop a mechanism for bringing in new members).
- PAC recognition is important. Let them know how important they are. Provide stipends, ask PAC members to do catering (which creates employment opportunities and appreciation/celebration dinners).
- Increase consumer input—include more consumers in the PAC.

Program Curriculum:

- Provide single session programs only.
- Review group decision-making process for applicability and validity. Develop strategies to capture voting preferences.
- Expand focus to other health issues.
- Provide other health resources. Have a table with information about where they can go to be tested. Help men to set up an appointment to get tested. Men living in shelters need more assistance in accessing screening/setting up doctors' appointments. Men need more assistance/training in how to talk with their doctor in general.

- Include slide presentation and testimonials (film or in-person).
- Use simple visual aids.

Outreach Strategies:

- Consider evening hours to bring out other men.
- Include women/significant others in programmatic efforts (programs for women and/or the opportunity to attend with men).
- Increase flexibility in program to ensure it meets African American men's needs and is able to reach the desired population.
- Provide refreshments.
- Other venues worth pursuing: churches/mosques, barbershops, and senior centers. Venues were correct, but recruitment and program strategies need to be fine-tuned.
- Do not limit geographic areas, age groups, or topics that can be covered. Younger men need to be included. Men of all ages have poor habits.
- Create more opportunities to discuss health. Participants could bring their sons; the earlier they get involved in health, the better.
- Explore use of media for outreach and increasing community awareness about the program.
- Include more health care providers in the program. If providers were more aware of the program they might refer patients for education and support/follow-up.

Communication:

- Reinforce the motto "own your own health"; use this in follow-up calls and remind men of the importance of speaking up for themselves.
- Increase media exposure for the program.
- Create resource guide to promote empowerment of men in accessing existing community resources.
- Build strong relationships on the basis of trust, transparency, and listening to all partners.
- Consider copying everyone on all e-mails to improve communication.
- Make sure leadership is willing to listen to the educators.
- Allow men to be active participants, not just listeners.
- Emphasizing to men how their contributions are important to family and community. The message to communicate is, 'It starts with good health.'
- Provide telephone numbers of educators so participants can call with follow-up questions.

Program Evaluation:

- Shorten survey instruments. Revise instruments to reflect appropriate skip patterns.
- Make sure all program participants sign in so that contact information is available for follow-up.
- Consider having evaluation meetings with co-managers outside of regular monthly meetings with staff. Monthly meeting should focus on quality not quantity.

- Work to fully integrate evaluators into all program components. Share evaluation and outcomes with the PAC on a regular basis, including changes in knowledge, attitudes, and behaviors of participants, as well as the number of programs and number reached.

Lessons Learned:

Overall:

- It was difficult for the program to limit interventions to targeted zip codes and age groups, but it had to turn down areas that were outside the target zip code regions because of limited resources.
- Changes were made as the program evolved. Program leadership met frequently with the health educators to evaluate what worked. Flexibility was a key to success.
- Educational messages must be consistent and sustainable, not just one-shots. They must be emphasized throughout the year.
- It was important to learn about the communities' needs and to shape the program's interventions around these needs.
- The PAC was vital in making the SHAPE-IT project credible to the community.

I think the PAC was absolutely key in making our project credible and guiding us. They were crucial in getting us participants; getting us sites; and talking up the program in their respective neighborhoods got us tremendous buy-in from the neighborhoods.

Participation by African American men:

- Participation in the education sessions was inconsistent, so it was more efficient to present everything at one time. It was also more effective to address men's health overall rather than address blood pressure, stroke, or prostate cancer as separate issues.
- Addressing prostate cancer prevention up-front made it easier for African American men to address hypertension control measures.

Men were interested in their health, and I think prostate cancer actually helped to get some of the guys there. They don't think of hypertension as being important. I think prostate cancer is complex but it is also much easier to understand and much easier to at least do something about it. You either get tested or you don't. Blood pressure is much more complicated, requires a variety of lifestyle changes and monitoring, and I think men were initially drawn to prostate cancer because it is a hot topic, then when they learned about hypertension and its risk factors and potential outcomes. They began listening and that...evolved into [understanding]...that hypertension and stroke are much more common causes of morbidity and mortality than prostate cancer.

- Using real people and real stories from the community and presenting them in a group setting was a way to get African American men to talk about their health.
- Having trustworthy health educators that the men could relate to on a personal, “brother-to-brother” level was essential for program participation.

They did not want academics or celebrities [as health educators]. They wanted folks that were just like them that they could relate to. They used the term “we want brothers talking to brothers.” Sitting in an academic health center, I can provide the brothers with data. I can provide them some theory on how to educate, but they [the health educators] have to get down and sit and talk to these guys. One of our health educators does rap. One is almost a preacher, and the other is a very good teacher.

- Key recruitment of African American men occurred at supermarkets, automotive repair shops, public transportation, and polling stations.
- Barriers to participation included insufficient time because of other commitments and priorities. Many also do not make their health a priority and often do not discuss health until there is a crisis.

Cultural competency:

- Presenting educational materials to African American men visually and orally (such as through videos and plays) was much more effective than handing out reading material.

Reference: APHA, 2007 (http://apha.confex.com/apha/135am/techprogram/paper_162962.htm)

Web site containing conference presentation and summary:

http://apha.confex.com/apha/135am/techprogram/paper_162962.htm

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**4.3.3.8 Program 8: Stroke and Heart Attack Prevention Program (SHAPP)
 (Georgia)**

Period of operation: 1974–present

Funding: SHAPP has received approximately \$1.1 million in funding that is distributed as grants to aid health districts. The majority of funding comes from CDC’s Preventive Health and Preventive Services Block Grant, but funding is also received from the Georgia General Assembly.

Mission: To provide education and direct services to low-income Georgians with hypertension through funding and coordinating district-level care coordinators/providers.

Description:

Activities:

- Treatment for hypertension in conjunction with and jointly managed by the health department and each patient's primary care physician. Services are provided through the county health departments and include screenings, doctor referrals, diagnoses, and treatments.
- Districts conduct training, outreach, and education with local partners. Programs are individualized at the district level. Programs fill gaps in care that the patient cannot afford or access on their own. Coordinators at the district level sometimes see patients directly and sometimes a nurse on staff sees patients.
- Education programs are provided to nurses who see SHAPP patients, including blood pressure, medications, diet, exercise, and smoking cessation.
- Counseling is provided on healthy behaviors such as the Dietary Approaches to Stop Hypertension (DASH) Diet, physician activity, weight management, and smoking cessation.
- At least one county conducts outreach activities and screenings in barbershops and beauty salons. Barbers are educated and trained to take blood pressure readings.
- Two-day workshops are held throughout the state for the nurses who are seeing patients at the local level. Clinical updates are provided, including information on medications and healthy behaviors.
- SHAPP clinics utilize a patient tracking system; one had an automated voice system reminder and another calls patients to remind them of their appointments. Computer printouts of SHAPP patients are reviewed by staff for follow-up if patients are not active.

Partnerships:

- Partnerships are developed at the district level and thus vary by district. The following are some examples of partnerships and their role with SHAPP:
 - The Georgia Department of Human Resource's Health Promotion section provides promotional funding for stroke and heart attack awareness through a collaborative campaign.
 - Faith-based organizations and health fairs provide opportunities for education. For example, SHAPP has a relationship with the annual Evans County Community Health Fair. Through these health fairs and other presentations, at-risk clients are identified and referred to the SHAPP program at county health departments.
 - Parks, recreational centers, clinics, visitor centers, and museums serve as venues for distributing literature. The American Heart Association provides many education materials for SHAPP.
 - This past year, SHAPP collaborated with local senior centers, recreation centers, and supermarkets to provide outreach and education to community members through blood pressure screenings, education, and resource

linkage. Other sources of outreach, screening, education, and referrals include the St. Joseph's/Candler Hospitals' African American Community Health Initiative and the city of Savannah Fire Department's Blood Pressure Screening Program.

- Within the Southeast Health District, the 16 local county health departments partner with many community resources, such as local hospitals, school nurses, chambers of commerce, and faith-based communities, to provide outreach for cardiovascular disease and other health promotion efforts.
- State nurse consultants help SHAPP provide trainings. Local hospitals and faith-based organizations have also collaborated.
- 100 Black Men of Savannah, Inc. has been useful for providing leadership and guidance to the program.
- Many of these partners are active member agencies of the Community Cardiovascular Council.
- Other partnerships include Community Cardiovascular Council's Black Male High Blood Pressure Coalition (a church-based initiative made up of 32 churches); African American Barber/Beauty Shop Blood Pressure Screening Program (including 12 barbershops and beauty salons); the St. Mary's Community Primary Care Clinic (an African American neighborhood health outreach program); African American Health Information & Resource Center (an innovative program providing computer/Internet services, health education, referral, and access); Head Start; Boys and Girls Clubs; community service organizations; businesses that advocate employee health; and various schools, colleges, and universities.

Organization:

- State-level initiative where services are provided at the county-level.

Staffing:

- State level
 - Project manager/nurse consultant in the State Division of Public Health who provides technical assistance and funding allocation to the districts, program coordination, and technical assistance concerning funding grants. She coordinates with the Office of Pharmacy to ensure that medications provided are appropriate and are based on national protocols.
 - Epidemiologist
 - Data entry (shared FTEs with other programs)
- District level: staff coordinator for every district (person is likely to also be responsible for other relevant activities conducted by other staff such as adult health coordinator, county nurse manager, etc.)

Target audience/participants:

- During the 2007 fiscal year, 56% of participants were African American and 28% were male.
- Participants came from low-income, underserved populations.
- Reading level is generally below high school.

Costs:

- SHAPP cost per patient is \$486. Estimates of per patient costs with no blood pressure treatment are \$534.
- Cost-effectiveness of the program is promoted through—
 - Services being provided by nurses and nurse practitioners versus more expensive physicians.
 - Adherence to treatment according to protocol, both in terms of services (e.g., visits, lab work) and medications. The SHAPP program does not begin treatment by using the newer, more expensive medications. Medications are added and/or changed according to evidence-based protocols.

Evaluation and Research: An external evaluation was conducted in 2005 by RTI International for CDC. In-depth case studies were conducted with two public health clinics in two districts with impressive blood pressure control rates. The evaluation included interviews with administrators and clinic staff to examine perceptions of the program, access, challenges, patient outcomes and recommendations; focus groups with patients to understand their perceptions of the program, experiences with high blood pressure, effects of participation, access, and recommendations; medical record abstraction to validate program reports and to ensure that treatment protocol is being followed; and a cost analysis to evaluate the cost-effectiveness of the program. Conclusions from the evaluation are incorporated into the Lessons Learned section of the summary.

Lessons Learned:

Overall:

- In relation to funding, it is important to have outside champions who support the program and see the value in it.
- It is important to communicate the value of the program to people in the business community and government, on both the county and state level.
- The program gains acceptance in the community by being consistent and trustworthy. Working with key individuals in the community will promote the perception of the program as trustworthy.
- Patients are often self-referred or physician-referred, and access to the SHAPP is an easy process. Essentially, patients do not feel they are jumping through hoops to be accepted into the program, and staff handle enrollment in a straightforward manner.
- Patients report that staff make time for them, are well trained, and are accepting and non-judgmental of their low-income status. Because patient medication adherence for high blood pressure is a major challenge, SHAPP usually writes prescriptions for 1 to 3 months, and staff work with patients' families and caregivers as well as patients to stress the importance of medication adherence. For elderly patients, it is particularly important to involve family and/or caregivers.
- SHAPP clients are often well aware that low-income people with high blood pressure cannot go to the doctor to be regularly checked and may not be able to afford needed medication.

- Many patients are clients for over one year; this ongoing, consistent surveillance is important to successful blood pressure control. Follow-up care is provided every 2 to 6 months, and staff are accommodating to participants' needs.
- Patient access to affordable medications through SHAPP is imperative for medication adherence; this is a cornerstone of the program.
- The use of a protocol-driven, systematic, comprehensive treatment provides for comprehensive patient counseling.
- Staff is dedicated and consistently voices the opinion that SHAPP fills an important need in the community. They understand the importance of their work and that SHAPP patients would not likely receive care for their hypertension otherwise.

Participation by African American men:

- Contracts are formed with men related to keeping appointments, taking medications, following a diet, getting physician activity, stopping smoking, etc.
- Referrals sometimes come from someone who had been in the program.

All people have their own priorities and sometimes health is not a priority. Sometimes it is being able to put food on the table andbeing healthy, especially if you don't feel bad, is difficult. I see that as being a communication issue to help people understand that even though you don't feel bad you still need to be on medication....[F]or men, there is the issue of erectile dysfunction in terms of certain medications... as a clinician I have seen that and they won't tell you that.

Cultural Competency:

- Providers need to be knowledgeable about the local culture.

Web sites containing program summary and information concerning selected partners:

- <http://health.state.ga.us/programs/cardio/shapp.asp>
- <http://northcentralhealthdistrict.com/content.asp?pid=104&id=162>
- <http://www.nwgapublichealth.org/counties/gordon/services.htm>
- <http://www.nwgapublichealth.org/counties/polk/services.htm>
- <http://www.sehdph.org>
- <http://www.sjchs.org/body.cfm?id=405>

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4.3.3.9 Program 9: Sound Heart Program (formerly known as the King County High Blood Pressure Control Program)

Seattle and King County Area, Washington

Period of operation: 1979–present

Funding: Many years of annual grant funding from the Seattle-King County Department of Public Health. Current funding is \$28,000 per year. Funding for a companion program, the Healthy Sunday program is provided through a grant from CDC.

Mission: The primary goal of the Sound Heart program is to promote cardiovascular health and prevent disease in King County, Washington. Sound Heart aims to provide services to low-income and underserved individuals, primarily African Americans, who have limited access to healthcare providers and screening tests.

Description:

Activities:

- When the program was implemented in 1979, the focus was solely blood pressure screening. After its inception, Sound Heart evolved into the Seattle Hypertension Intervention Program, which was a community research demonstration grant program sponsored by Seattle-King County Department of Public Health and funded by the National Heart, Lung, and Blood Institute. In 1983, Sound Heart received an Outstanding Achievement Award from the Secretary of the U.S. Department of Health and Human Services (DHHS) for its collaborative efforts with the American Heart Association and Seattle-King County Department of Public Health. In 1987, the Center for Multi Cultural Health was awarded a grant by DHHS' Office of Minority Health to design and develop a community-based heart disease and stroke prevention program that would begin to address the disproportionately high rates of heart disease and stroke deaths among African Americans. In 1999, the Sound Heart program began including the screening for glucose.
- The program offers blood pressure, glucose, cholesterol screenings, and behavioral risk factor screenings, community education, and worksite health promotion programs through a variety of community events. Both initial and follow-up screenings are available and are intended to build trust with participants. Screenings take approximately 5 to 8 minutes and participants are able to receive their results on the spot. After each screening, participants who have elevated readings can meet with a health educator to receive additional information related to their results. At that time, participants can choose to complete an action plan that outlines the steps they are willing and able to take to better manage their blood pressure, glucose, and/or cholesterol levels. This is one of only a few local organizations that provide free services to the African American community.
- Sound Heart provides referrals and the name of specific providers to their participants. While the program does not provide a copy of the action plan to physicians, participants are encouraged to share their results with their primary care providers.
- Screenings and outreach activities take place at various community events including festivals, health fairs, community centers, senior housing facilities, low-income housing, community-based organizations, work sites, and small businesses.

- Participants are followed up within 6 months and encouraged to attend a rescreening event. At the re-screening, the health educator is available to review the action plan and discuss the participant's progress. The goal is to determine if participants have begun to make lifestyle changes that will improve their health status and whether this is reflected in the re-screening results. Because screening events are conducted throughout the community, re-screening events occur at those places and events where program staff is likely to meet repeat individuals (e.g., faith-based organizations). In addition, re-screenings are conducted with events that are willing and able to accommodate the activity.
- To reach its target population, Sound Heart builds working relationships with businesses, faith-based organizations, community leaders, and community-based programs. They have established relationships with several community clinics where a majority of the patient population served is African American.
- A substantial proportion of the outreach and screening activities is done in predominantly African American faith-based organizations. The Sound Heart/Healthy Sunday staff works with faith-based health ministries to assist them in making screenings and resources available to their congregations.

Partnerships:

As a representative of the African American community, Sound Heart works with fellow community partners on minority health issues. Partners participated in designing the program and conducting screenings. Reading materials and handouts are obtained from the American Heart Association in Seattle. The program was originally started through a collaborative effort with the American Heart Association, Seattle Black Firefighters, American Association of Retired Persons, and several individuals.

Organization:

The project is conducted by the Center for Multicultural Health, a community-based organization housed within the Urban League, whose mission is to promote the health and well-being of diverse communities, including low-income and underserved individuals from communities of color.

Staffing:

One full-time staff member (health educator) coordinates the project in-house. Four other staff members attend community events: two Bastyr medical students perform the screenings, and two health educators assist with relaying results to participants and providing additional information and resources in the area.

Target audience/participants:

African Americans residing in central Seattle and neighborhoods located south of central Seattle. The program serves approximately 300 participants a year, through a variety of community events. Approximately 20% of participants are men. The majority are in the low-income to middle-income range.

In the last 4 years, Sound Heart/Healthy Sunday has reached about 25 faith-based organizations. There are approximately 60–75 African American faith-based organizations in the Seattle/King County area.

Evaluation and Research: Demographic information including participants' age range and information on the patients' neighborhoods is collected to evaluate the most

effective outreach strategies. A conclusion was that the program was able to reach more African Americans at faith-based organizations than at community events. There has not been a formal evaluation of the program.

Lessons Learned:

Overall:

- People are willing to participate in this program because there is no fee.
- Repeat visibility, which includes conducting the initial and follow-up screening, builds trust and encourages more people to participate in the program.
- When Sound Heart plans to return to a faith-based organization or community event, sending a personal letter to program participants is especially effective.

A lot of times, because we have been out in the community, people expect us to be there. There is, for instance, one community event that we have attended every year for at least seven years.... There are a good number of Seattle police officers who expect us to be there every year... so that they can participate in our program. That is great because we are... able to follow up on them very rigorously.

- Having a limited amount of equipment to conduct screening can hinder program participation, especially in a faith-based setting because participants may not be willing to wait more than a few minutes for their turn.
- A key to the program's success is that it fills a need in the community; it is the only program of its kind in the area.

Participation by African American men:

- Men are less inclined to get screenings because of fear or disinterest.
- Most men participate in the program because their wives or girlfriends bring them or because they see women working at the booth.
- Conducting men-only programs at faith-based organizations, such as the Soul Men Conference has been successful.
- For making connections to faith-based organizations, it is easier to reach out to health ministry members rather than a pastor, who is often very busy. The strategy is to get the pastors involved in the program to encourage participation. A male pastor's involvement in the program is especially effective in encouraging men to participate.

I had a pastor who just told his congregation I am tired of burying people who are dying of premature causes, and ever since then I have had more men from his church participating in our screening because they all knew what he was talking about.

Cultural competency:

- Written materials and information such as flyers and brochures should reflect African Americans in the best light possible.

Web site:

http://www.multi-culturalhealth.org/programs_svcs/sound_heart.htm

Contact:

Devon Love
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Center for MultiCultural Health
105 14th Avenue, Suite 2C
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4.4 Literature Search Results

Our primary focus was to locate programs that would be directly applicable to the goals of this book, namely, presenting systems-level programs concerning blood pressure control in patient populations comprised solely or predominantly of African American men. We also include summaries of programs found in journal articles that focus on diseases other than high blood pressure because they include lessons learned on recruiting African American men into health care programs.

We located programs in the peer-reviewed literature by using the search engine MEDLINE®, which indexes articles concerning medical and health services research. We used pre-specified relevant search terms. (See Appendix B for a full list of terms) We located programs in the practice literature through searches of Web sites and other relevant information on the Internet. (See Appendix A for a full description of the search strategy)

We present summaries of 11 programs described in 12 publications from the peer-reviewed literature. Each summary includes the objective of the study, how the project was related to systems change, a detailed description of the intervention, the outcomes and key findings from the study, and lessons learned. The table below presents system-level change goals of studies found in journal articles grouped into categories by topic:

Box 1. Themes of Programs Described in the Peer-Reviewed Literature

Blood pressure control programs focusing on African American men
<ul style="list-style-type: none">a. Addressing health disparities within Ohio's African American male population: The creation and implementation of a culturally relevant media campaign directed at African American malesb. A research study to improve high blood pressure care in young urban African American men: An educational-behavioral intervention, administered by a nurse-community health work team, in combination with usual medical care, to improve entry into care and reduce high blood pressure rates.c. Hypertension care and control in underserved urban African American men: A multi-faceted, individually tailored, multi-disciplinary team approach to blood pressure control with free medications and integrated assessment, counseling, and referral for substance addiction.
Blood pressure control/coronary heart disease prevention programs focusing on the African American community
<ul style="list-style-type: none">a. A hypertension control program tailored to unskilled and minority workers: Classes and written handouts with hypertension information, strategies for reducing hypertension, and lifestyle modification strategies.b. Development of a standardized screening form that can be used at community-based screening events conducted by community organizations in the African American community: Conducted in partnership with national African American organizations for diabetes and hypertension screening events.c. Take It To Heart: A National Health Screening and Educational Project in African American Communities: Production of individualized risk assessments in key cardiovascular risk areas, and a coronary risk profile to inform and encourage those at high risk to take steps to improve their health status.d. Faith-based education: an outreach program for African Americans with hypertension: An educational-behavioral intervention used to educate church members to support reductions in high blood pressure rates and improved heart-healthy lifestyle choices.e. Impact of a community-based multiple risk factor intervention on cardiovascular risk in African American families with a history of premature coronary disease: An invention directed at individuals at high risk based on a sibling's hospitalization for a coronary event.

Other relevant systems-level health care programs focusing on the African American community

- a. **Recruiting African American men for cancer screening studies: Applying a culturally based model:** A three component framework, involving health education, educational diagnosis of health behavior and cultural appropriateness of health behavior to increase recruitment for prostate cancer screening.
- b. **Systems-level and community-based interventions for diabetes control:** A resource assessment of the strengths and gaps of current public health efforts to reduce the burden of diabetes in northeastern North Carolina in support of planning regional diabetes prevention efforts.
- c. **A model for home care clinician and home health aide collaboration:** An educational-behavioral intervention providing diabetes care by nurse case managers and community health workers.

4.4.1 Journal Article Projects Matrix

The following matrix provides a roadmap to the information contained in the summaries for each of the projects found in the literature. Similar to our intent in relation to the matrix summarizing characteristics of the interviewed projects, it is designed to assist the reader in more easily locating projects that may be of particular interest.

	1 Edwards et al. (2007) OH	2 Hill et al. (1999) Baltimore, MD	3 Hill et al. (2003) & Dennison et al. (2007) Baltimore, MD	4 Fouad et al. (1997) Birming- ham, AL	5 Graham et al. (2006) Various locations	6 Keys (1999) Various locations	7 Smith et al. (1997) Chicago, IL	8 Becker et al. (2005) Baltimore, MD	9 Abernethy et al. (2005) Los Angeles, CA	10 Dickson et al. (2004) NC	11 Vetter et al. (2004) Baltimore, MD
Selected Characteristics											
Study design											
Descriptive	●				●	●			●	●	
Randomized controlled trial		●	●					●			●
Quasi-experimental				●			●				
Study length	1 time	1 year	5 years	1 year	6 months	1 year	3 months	1 year	unknown	ongoing	2 years
Target health condition											
Hypertension	●	●	●	●	●	●	●				
Cardiovascular disease					●			●			
Diabetes					●				●	●	
Prostate cancer									●		
Setting											
Faith-based organizations					●	●	●		●		
Community	●				●	●		●			
Medical/clinics	●	●	●								●
Workplace				●							
Government	●								●		
Service delivery											
Project staff	●			●		●			●		
Physicians		●				●					
Nurses/nurse practitioners	●	●	●			●	●	●			●
Health educators							●				
Community health/outreach workers	●	●	●					●			●
Community organization leaders/staff					●		●		●		
Study population											
Low-income/underserved				●						●	
African American only	●	●	●		●	●	●	●	●	●	●
Men only	●	●	●						●		
Study/program activities											
Blood pressure screening/monitoring		●	●	●	●	●	●	●	●		●
Participant education/media campaign	●	●	●	●		●	●	●	●	●	●
Free medications			●						●		
Referral to providers		●									
Home visits	●	●					●				●
Training community members							●				
Forming partnerships					●	●	●		●	●	

4.4.2 Blood Pressure Control Programs Focusing on African American Men

4.4.2.1 Addressing health disparities within Ohio's African American male population: Ohio Department of Health, Heart Disease and Stroke Prevention Program's focus groups, 2007 summary report and recommendations

Intervention

- **Objective:**

- To assess African American men's knowledge, attitudes, and beliefs about control and treatment of high blood pressure, patient-provider communication, and best methods for message dissemination among African American men. The analysis focused on comparing findings to themes identified in the literature and recognizing emergent themes to better identify appropriate messages and strategies for the creation and implementation of a tailored high blood pressure treatment and control educational campaign.

- **Systems change:**

- Findings will be used to create and implement a culturally relevant media campaign for Ohio's African American male population.

- **Detailed description of the intervention:**

- Nine focus groups were conducted in the summer and fall of 2007 (one focus group per age group per city). Age groupings were 18 to 29 years old, 30 to 49 years old, and 50 to 79 years old. Monetary incentives were provided for participating.

- **Setting:**

- Focus groups were conducted in Cincinnati, Cleveland, and Columbus, Ohio

- **Population:**

- Inclusion criteria: African American men in the cities of interest
 - Sample size: Cincinnati: 30, Cleveland: 24, Columbus: 25
 - Characteristics: Diverse cross-section of socioeconomic groups recruited through various means including: the Commission on African American Males listserv, targeted television and radio advertising, and word of mouth

Outcome Measurement

- **Design:** Descriptive

- **Indicators:** N/A

Key Findings

- **Definition of high blood pressure:** The 18- to 29-year olds associated high blood pressure with medically related symptoms, lifestyle factors, or personal experiences. Most frequently, diet was cited as a cause of high blood pressure among all age groups.
- **Family history of high blood pressure:** Most respondents could easily describe their family history of high blood pressure on their maternal side but had difficulty similarly describing their paternal history.

- **Perceived symptoms:** Respondents in all age groups cited various symptoms they perceived to be related to high blood pressure such as sweating, weakness, fatigue, and stress.
- **Deterrents of prevention/management:** The youngest men did not consider high blood pressure to be a major concern, and competing priorities (e.g., worries about money, safety) prevented them from focusing on the management or prevention of high blood pressure. Respondents aged 30–49 indicated that lack of awareness regarding the importance of high blood pressure treatment and control among African American men may contribute to the lack of participation in prevention activities among men of this age group. Also, financial cost may be a deterrent to healthy eating among men in this age group.
- **Prevention of high blood pressure:** Men in all focus groups indicated that eating a healthy diet (e.g., consuming less sodium and less fatty food, particularly pork) and engaging in physical activity were two activities that could prevent and/or manage high blood pressure. Men aged 30–49 also mentioned spiritual activities, including meditation, as a means of controlling high blood pressure. Men aged 50–79 identified the importance of establishing a good relationship with health care providers, including open and honest communication.
- **Patient/provider relationships:** The majority of groups expressed general feelings of negativity and pessimism towards health care providers and the health care system, including lack of respect and lack of attention.
- **Acquiring health information:** Traditional media sources were considered the best sources of information (radio, television, magazines, and newspapers), particularly those primarily serving the African American community. Only the youngest group cited the Internet as an effective source of information. A majority of men in all groups received health information through discussions with the women in their lives. Other sources included neighborhood businesses, institutions or events including libraries, faith-based organizations, beauty salons/barbershops, recreation centers (gyms) and health fairs. Clinical settings were not top choices because the men acknowledged that they did not see their providers regularly.
- **Framing messages:** Respondents 18–29 years of age believed that preventive messages, information about risk factors, the consequences of high blood pressure, and the ability to control and manage blood pressure within their current lifestyle were important. The messages needed to make it cool to address high blood pressure. For men aged 30–49, messages that included the personal/human element were important, including testimonials by African American men who have successfully controlled their blood pressure, as was information about medicinal and non-medicinal (natural) treatment options. Men in the oldest group said that a message that high blood was a major and silent killer of African American men would appeal to them the most.

Lessons Learned

- Future studies should investigate approaches for obtaining family health history.
- Health messages should be created that encourage young African American men to make health a priority in their lives.
- Further exploration of better marketing of alternative food-based nutrition interventions is needed including community gardens and farmers markets accessible to the African American community.
- Aspects of religion or spirituality should be included in health messages; places of worship should be considered as means of disseminating health messages to older audiences.
- The perception that health care providers are not being honest impedes the development of relationships.
- Messages need to be tailored to various African American male audiences.
- Web-based health education campaigns should be directed at younger men.
- Trusted female figures should be used in educational campaigns.
- In designing communication plans, educational campaigns should partner with trusted local businesses.
- Traditional media sources should be used to disseminate health messages.
- The entertainment factor should be considered when creating a campaign for younger men.

Reference: Edwards J, Greene E, Pryor B. Addressing health disparities within Ohio's African American male population: Ohio Department of Health, Heart Disease and Stroke Prevention Program's focus groups 2007 summary report and recommendations. Columbus, OH; 2007: Office of Health Ohio, Ohio Department of Health.

4.4.2.2 A research study to improve high blood pressure care in young urban African American men: recruitment, follow-up, and outcomes

Intervention

- **Objective:**
 - This 12-month research study (a randomized controlled trial comparing two interventions), investigated whether an educational-behavioral intervention administered by a nurse-community health worker team in combination with usual medical care lowered blood pressure and increased high blood pressure control in comparison to usual medical care alone among young, inner-city African American men.
 - Secondary aims were to increase understanding of factors influencing entry into care, remaining in care, and adherence to treatment recommendations in this population, and to develop methodologies to improve high blood pressure care and outcomes.

■ **Systems change:**

- An educational-behavioral intervention, administered by a nurse-community health work team, in combination with usual medical care, was used to improve entry into care and reduce high blood pressure rates.

■ **Detailed description of the intervention:**

- Both groups received educational materials explaining high blood pressure, goal blood pressure, the importance of remaining in care, and adhering to treatment; referral to a physician if necessary; answers to questions; and a wallet card to record blood pressure.
- The intervention group received individualized counseling, monthly telephone calls, and a home visit.
- Men were recruited through the Emergency Department, screenings at the Health Department's sexually transmitted disease clinics, flyers, and word of mouth. Three contacts for tracking were obtained.
- The number of participants keeping screening appointments was maximized through multiple letter and telephone contact follow-up.

■ **Setting:**

- Randomized controlled trial conducted at Johns Hopkins Hospital Outpatient General Clinical Research Center, Baltimore, Maryland

■ **Population:**

- **Inclusion criteria:** African American male residents living within the Johns Hopkins Hospital catchment area; 18–49 years of age; blood pressure greater than or equal to 140 or greater than or equal to 90 mm Hg, or blood pressure less than 140/90 mm Hg and currently taking high blood pressure medication; with no acute or terminal illness; and able to give their written informed consent, telephone number, and address, and the verified name, address, and telephone number of two or three people through whom they could be reached.

- **Sample size:** Screened: (N = 528); Baseline: (N = 204); Follow-up: (N = 157)

- **Characteristics:** African American male residents living within the Johns Hopkins Hospital catchment area; 18–49 years of age; blood pressure greater than or equal to 140 or greater than or equal to 90 mm Hg, or blood pressure less than 140/90 mm Hg and currently taking high blood pressure medication; with no acute or terminal illness; and able to give their written informed consent, telephone number, and address, and the verified name, address, and telephone number of two or three people through whom they could be reached.

Outcome Measurement

- **Design:** Research study (randomized controlled trial comparing two interventions), individual level data collected at baseline and follow-up
- **Indicators:** Change in BP, appointment attendance

Key Findings

- Mean change in diastolic blood pressure was significantly different from zero for both the treatment and control groups; they were not significantly different from one another. The mean change in systolic blood pressure was not significantly different from zero for either group.
- In separate regression analyses measuring changes in diastolic blood pressure and systolic blood pressure from baseline to follow-up, none of the following variables were significantly associated with the change: having a doctor for high blood pressure, taking medication for high blood pressure, having health insurance, being employed, graduating from high school, or being in the intervention group.

Lessons Learned

- It is feasible to identify, recruit, and follow-up on men with these characteristics; however, the process is very labor intensive.
- The Emergency Department is an important recruitment site in underserved urban areas.
- Men who were currently or had been in care for their high blood pressure were more likely to participate than those who had not previously been diagnosed.
- Word-of-mouth is a valuable approach for recruiting participants.
- The likelihood of reaching men was enhanced by identifying three, rather than two verified contacts.
- For many, the provision of transportation, minimal financial assistance with medical visit fees, and medication were not sufficient incentives to overcome negative prior experiences and the perceived absence of benefit.
- Modest financial and tangible incentives, such as sunglasses and squeeze bottles with the study logo, were useful.
- An enthusiastic, energetic, committed, and persistent minority staff was essential to recruitment and retention. Staff members brought to the study knowledge, experience, nonjudgmental concern about the health of the population, and an ability to establish rapport with the men and contacts. It was important that the workers were comfortable in the community, but they did not need to be from the community.

Reference: Hill MN, Bone LR, Hilton SC, Roary MC, Kelen GD, Levine DM. A clinical trial to improve high blood pressure care in young urban black men: recruitment, follow-up, and outcomes. *Am J Hypertension* 1999;12(6):548–54.

4.4.2.3 Hypertension care and control in underserved urban African American men: behavioral and physiologic outcomes at 36 months and hypertension study outcomes and mortality results at 5 years

Intervention

- **Objective:**

- This 5-year research study (randomized controlled trial) compared the effectiveness of a more intensive comprehensive educational-behavioral-pharmacological intervention by a nurse practitioner–community health worker-physician team and a less intensive education and referral intervention in controlling blood pressure and minimizing progression of left ventricular hypertrophy and renal insufficiency.

- **Systems change:**

- A multi-faceted, individually tailored, multi-disciplinary team approach to blood pressure control with free medications and integrated assessment, counseling, and referral for substance addiction.

- **Detailed description of the intervention:**

- More intensive group: received comprehensive individualized intervention by a team comprised of a nurse practitioner, a community health worker, and a physician. Nurse practitioner visits were scheduled every 1 to 3 months and included free hypertensive medication. In year 1, the community health worker made a home visit to engage and assist the person identified by the participant as someone providing them with key support with health matters. Subsequent community health worker visits were based on the men's needs, with referrals related to social services, job training, and housing. The physician was available for consultation with the nurse practitioner and participated in case discussions regarding management of hypertension as needed.
 - Less intensive group: referred to sources of hypertensive care in the community.
 - Both groups were reminded of the importance of blood pressure control every 6 months by telephone call and at their annual research visit, and both received education about the benefits of controlling hypertension.

- **Setting:**

- East Baltimore community

- **Population:**

- **Inclusion criteria:** African American men, 18 to 55 years of age, residing in inner-city Baltimore, with hypertension defined by systolic blood pressure greater than 140 mm Hg and/or diastolic blood pressure greater than 90 mm Hg on two separate occasions or a history of being diagnosed with high blood pressure and being on antihypertensive medication. Exclusion criteria were being on renal dialysis, having an acute or terminal illness or serious mental illness, or participating in another hypertension study.

- **Sample size:** Screened: (N = 821); Baseline (N = 309); Follow-up at 36 months (N = 231); Follow-up at 5 years (N = 200)
- **Characteristics:** African American men, age range (21–54 years); employed (27%); never married (58%); mean blood pressure (147/99 mm Hg); on hypertensive medication (53%); controlled blood pressure (19%)

Outcome Measurement

- **Design:** Randomized controlled trial
- **Indicators:** Blood pressure (BP), left ventricular mass (LVM), and serum creatinine, all measured at baseline, 12, 24, and 36 months, and 5 years

Key Findings

- Through the 36-month follow-up, improvements in blood pressure rates were significantly greater in the more intensive group. While the improvements remained greater in the more intensive group at 5-year follow-up, the difference was no longer statistically significant.
- At 36 months, blood pressure was considered controlled in 44% of those in the more intensive group and in 31% of those in the less intensive group.
- There was a trend toward slowing of the progression of renal insufficiency (incidence of 50% increase in serum creatinine) in the more intensive group compared to the less intensive group.
- Over a 36-month period in both groups, cigarette smoking and high salt intake declined, and antihypertensive medication use increased, but high rates of obesity and illicit drug use remained unchanged. By 5 years, improvements in cigarette smoking and salt consumption remained, but there continued to be no improvements in cholesterol and BMI levels.
- While follow-up rates were greater among the more intensive group at 1, 3, and 5 years, after accounting for men who died or were incarcerated, the differences were no longer significant at 5 years.
- Improvements in overall hypertension care compliance was greater in the more intensive group at 2, 3, and 4 years, but was lost by 5 years.

Lessons Learned

- It is possible to recruit, track, and follow a cohort of inner city young African American men with hypertension.
- High rates of obesity, smoking, and illicit drug use emphasize the need to better incorporate lifestyle modification therapies within BP control programs.
- The multi-faceted, individually tailored, multi-disciplinary team approach with free medications appears to have effectively reduced barriers to BP control among these men.
- Assistance with life priorities (e.g., job training and housing) appeared to help the men better focus on their health problem.
- Even the less intensive intervention (telephone calls every 6 months, annual evaluation, appropriate referrals for health conditions and social needs, and attention from a culturally competent and motivated staff) helped high-risk patients lower their blood pressure.

- Integrating assessment, counseling, and referral for substance abuse is useful.
- The physician visit needs to be supplemented by home visits from community health workers, free BP management, and medication.
- Individual interactions influenced the number of nurse practitioner visits. A decrease in visits in years 4 and 5 may have been related to participant fatigue as the uniqueness wore off. A modified or intensified intervention may have been useful in the last years of the study.

References: Hill MN, Han HR, Dennison CR, Kim MT, Roary MC, Blumenthal RS, et al. Hypertension care and control in underserved urban African American men: Behavioral and physiologic outcomes at 36 months. *Am J Hypertension* 2003;16:906–913.

Dennison CR, Post WS, Kim MT, Bone LR, Cohen D, Blumenthal RS, et al. Underserved urban African American men: hypertension trial outcomes and mortality during 5 years. *Am J Hypertension* 2007;20:164–171.

4.4.3 Blood Pressure Control/Coronary Heart Disease Prevention Programs Focusing on the African American Community

4.4.3.1. A hypertension control program tailored to unskilled and minority workers

Intervention

■ Objective:

- To educate low literacy hypertensive municipal workers about high blood pressure and induce behavioral changes that would bring their blood pressure under control.

■ Systems Change:

- The Hypertension Intervention Program provided classes and written handouts with hypertension information, strategies for reducing hypertension, and lifestyle modification strategies.

■ Detailed description of the intervention:

- A 12-month hypertension education intervention included hour-long classes (weekly for four weeks and then monthly for 11 months) on hypertension control and lifestyle modifications. Blood pressure was measured at every class meeting.
- Both cases and controls received annual medical exams and health newsletters and were exposed to a monthly health poster program through the larger Birmingham Heart Disease Prevention Project (BHDPP), which was a more comprehensive system-wide intervention.

■ Setting:

- Birmingham, Alabama

■ Population:

- **Inclusion criteria:** All municipal workers with blood pressure $\geq 140/90$ were invited to join the program. The program was targeted towards a

subpopulation of low literacy workers, specifically those in working in the Streets and Sanitation, Parks and Recreation, and Engineering Departments.

- **Sample size:** Participants: Screened: (N = 600); Baseline: (N = 130); Follow-up: (N=81)
- **Characteristics:** Less than 45 years of age: 63%, male: 86%, African American: 63%, approximately high school education: 46%, unskilled workers: 58%

Outcome Measurement

- **Design:** Quasi-experimental design (cases matched retrospectively to non-participating controls by age, sex, race, and baseline blood pressure)
- **Indicators:** Change in blood pressure over time

Key Findings

- There was no significant difference in the change in blood pressure between intervention participants and controls.
- Intervention participants had a significant decrease in mean systolic pressure (P = 0.03) but not in mean diastolic pressure.
- African American participants had a significant decrease in mean systolic pressure (P = 0.004) but not in mean diastolic pressure.

Lessons Learned

- Several barriers to participation became apparent:
 - High rate of illiteracy
 - Lack of understanding of concept of delayed gratification (preventive measure to avoid heart disease in future)
 - Significant variability in health priorities
 - Inaccurate health beliefs about cardiovascular risk factors
 - Inadequate support from supervisors
 - Lack of time for participation
 - Adverse peer group pressure
- Involving employees in the creation of the intervention program might have improved participation rates.
- Because this study was part of a larger health intervention, it is difficult to isolate the impact of the hypertension program from that of the larger health intervention project.
- Workplace programs blending behavioral and environmental interventions to complement and reinforce each other cause the health outcome to be shared by employer and employee. The blending of these approaches may promote behavioral change by enhancing workplace awareness.

Reference: Fouad MN, Kiefe CI, Bartolucci AA, Burst NM, Ulene V, Harvey MR. A hypertension control program tailored to unskilled and minority workers. *Ethn Dis* 1997;7(3):191–199.

4.4.3.2 . Development of a standardized screening form that can be used at community-based screening events conducted by community organizations in the African American community

Intervention

- **Objective:**

- To assess hypertension and diabetes screening data collection practices and guidelines and to develop and test standardized diabetes and hypertension screening forms for use in community- and faith-based screening events in the African American community, conducted by fraternal, professional, community-based, and grassroots organizations.

- **Systems change:**

- Developing standardized screening forms and guidelines for community-based health screening events and partnering with national African American organizations to conduct community-based screening for diabetes and hypertension.

- **Detailed description of the intervention:**

- The Department of Health and Human Services' Office of Minority Health (OMH) developed a hypertension screening form to be used at community-based screening events. Data collected on the form included the following: demographics, high blood pressure status, attitudes, risk assessment, access, blood pressure reading and explanation, and recommendations. Each participant gave the following information: name, address, sex, age, place of birth, primary language and language spoken at home, race/ethnicity, whether they had diabetes, how they felt about their knowledge and risk, and whether they were willing to change behaviors to reduce their risk for hypertension. Questions also assessed their risk, health insurance coverage and employment status. Two blood pressure readings, systolic and diastolic were taken.

- **Setting:**

- The instrument was tested at screening events in Greenbelt, MD; Hyattsville, MD; New York, NY; Pittsburgh, PA; Charleston, SC; East St. Louis, IL; New Orleans, LA; Fresno, CA; and Washington, DC.

- **Population:**

- **Inclusion criteria:** The screening form was tested on individuals who attended community-based screening organized by one of the collaborating national African American organizations.
 - **Sample size:** 265 hypertension screening forms were completed
 - **Characteristics:** Not available

Outcome Measurement

- **Design:** Descriptive

- **Indicators:** Completion rate for fields on the forms

Key Findings

- Core questions can be developed for screening events conducted by national African American organizations. The hypertension form had 32 fields that

needed to be completed. Sections filled out by participants had a higher completion rate than those filled out by screeners. Completion rates for the follow-up section of the form were low. Screeners noted that many participants commented on the personal information given on the forms and were concerned about who would have access to this information. Screeners also noted that participants may know volunteers, thereby causing them to be uncomfortable in answering personal information.

Lessons Learned

- Collaborative models can be successfully created between OMH and national African American organizations.
- Community organizations that are not health oriented may require more technical assistance when using screening tools and selecting appropriate personnel to conduct health screenings.
- Additional appropriate personnel may ease the time pressures that could lead to incomplete completion of the forms.
- Issues of privacy/confidentiality and liability are critical barriers to more effective follow-up. Providing screeners with a confidentiality agreement before the screening with additional language for handling this situation with participants may be helpful, or adding a tear-off section to the forms where the screeners would record the participant's screening results and then detach it from the screening form for the participant to use for future reference may also be helpful.

Reference: Graham GN, Kim S, James B, Reynolds G, Buggs G, Hunter M, et al. Benefits of standardized diabetes and hypertension screening forms at community screening events. *Health Promot Pract* 2006;7(1):26–33.

4.4.3.3. Take It To Heart: a national health screening and educational project in African American communities

Intervention

- **Objective:**
 - To provide free screening and to increase awareness of the prevalence of hypertension and the risks of coronary heart disease in the African American community.
- **Systems change:**
 - Take It To Heart, an educational-behavioral intervention, provided individualized risk assessments in key cardiovascular risk areas, and was based on these data, produced a coronary risk profile (CRP). The information provided was intended to inform individuals and encourage those at high risk to take steps to improve their health status.
- **Detailed description of the intervention:**
 - The project provided free blood pressure testing, cholesterol testing, and individualized coronary risk assessment. Participants completed a questionnaire about their medical and social history.
 - Screenings were widely advertised; community organizations and faith-based organizations were notified by mail.

- A CRP was produced for each participant that included major risk factors indicating the comparative risk for the individual, and suggestions on how to modify risk through lifestyle changes. Members of the local National Medical Association were available to review the CRP and reinforce changes.
- The project was conducted by the National Medical Association and the Bayer Corporation.

■ **Setting:**

- Take It To Heart was conducted in faith-based organizations, community centers, and shopping malls based in predominantly African American neighborhoods in Washington, DC; Detroit, MI; Atlanta, GA; Greensboro, NC; and Houston, TX.

■ **Population:**

- **Inclusion criteria:** Community program
- **Sample size:** Some screening: (N = 1651), Full screening: (N = 1250)
- **Characteristics:** Of those who completed full screening: African American: 95%, average age: 48 years (range 18–82 years)

Outcome Measurement

- **Design:** Descriptive study
- **Indicators:** Blood pressure and risk profile

Key Findings

- Individuals with high blood pressure: 40%

Lessons Learned

- Results of screening tests demonstrated the need for more community-based programs designed to increase awareness of the importance of regular check-ups and health information regarding hypertension.
- The program was well received and has expanded so that the partnership between the National Medical Association and the Bayer Corporation has expanded to include the National Black Nurse's Association. This will provide participants with greater access to African American health care providers.
- In light of a high percentage of abnormal results, a follow-up program is being developed. Several new activities are being explored including educational mailing to participants' homes and phone calls from local National Medical Association physicians.

Reference: Keys R. Take It To Heart: a national health screening and educational project in African American communities. *J Natl Med Assoc* 1999;19(12):649–652.

4.4.3.4 Faith-based education: an outreach program for African Americans with hypertension

Intervention

■ **Objective:**

- To conduct an education outreach demonstration study to prepare registered nurses (RNs) as Church Health Educators (CHEs), and to test the effectiveness of a hypertension education and support program in African American faith-based organizations for persons with high blood pressure.
- Secondary aims were to determine the effectiveness of a faith-based model and a combined education and support intervention for African Americans with high blood pressure in increasing knowledge related to high blood pressure.

■ **Systems change:**

- An educational-behavioral intervention, administered by CHEs in African American faith-based organizations in urban Chicago, was used to educate faith-based organization members to support reductions in high blood pressure rates and improved heart-healthy lifestyle choices.

■ **Detailed description of the intervention:**

- **Phase I:** RNs from member congregations were prepared as CHEs and lay person volunteers were prepared as program planners/organizers and facilitators.
 - CHEs were recruited through the American Heart Association of Metropolitan Chicago's Church-Based Hypertension Consortium, with congregation members identified by church pastors, and the National Black Nurses Association Chicago Chapter.
 - A 24-hour in-service program combined classroom instruction with experiential activities. CHEs and program planners were taught assessment of health education needs, the process of planning a program to fit within the existing structure of the faith-based organization, development of overall and specific program planning skills, identification of resources, skills for matching learner's needs with educational methods and techniques, ways to create an environment conducive to education, methods of evaluating individual and overall educational programs, and specific strategies, trends, and issues in hypertension management.
 - Experiential activities included discovering the structure of the member's faith-based organization, conducting a health education assessment of the congregation, organizing a health committee, and planning for the implementation of a high blood pressure education program.
- **Phase II:** CHEs taught their faith-based organization members about HBP and strategies for active involvement in the management of one's high blood pressure regimen.
 - The formal education program consisted of eight 1-hour small group classes using curriculum guides to standardize class content. Topics included understanding high blood pressure, risk factors for high blood pressure,

sodium and high blood pressure, cholesterol and high blood pressure, stress management and exercise, drug therapy, and roles and responsibilities for managing high blood pressure.

- CHEs implemented interventions in small groups of subjects with high blood pressure. Support and education were provided formally in class and informally during day-to-day or week-to-week contacts, in didactic meetings, during visits, and by telephone. CHEs worked with family members to teach them about high blood pressure and ways they could support their family members with high blood pressure. Blood pressure readings were taken at each class. Other data were collected for assessing social support networks, lifestyle factors, and background.
- **Setting:** 17 urban, predominantly African American faith-based organizations located in the Chicago metropolitan area
- **Population:**
 - **Inclusion criteria:** African Americans, at least 18 years of age, diagnosed as having hypertension, willing to participate in the study, and who had completed at least three-fourths of the educational classes.
 - **Sample size:**
 - Faith-based organization leaders, registered nurses (N = 32), health professionals (N = 8), licensed practical nurses (N = 10), laypersons (N = 23)
 - Participants: Screened (N = 198); Baseline (N = 97); Follow-up (unknown)
 - **Characteristics:** mean age (62 years); female (84%); married (29%); employed (42%); median education (high school); median annual income (\$10,000–\$20,000)

Outcome Measurement

- **Design:** Pre-test/post-test with no control group with data collected at baseline (pre), at completion of the intervention (post1), and 3 months post-intervention (post2)
- **Indicators:** Change in blood pressure, changes in knowledge, changes in lifestyle modification

Key Findings

- Knowledge scores significantly increased from pre to post1 and post2.
- Systolic BP and mean arterial BP significantly decreased from pre to post1 and post2.
 - DBP significantly decreased from pre to post1 only.

Lessons Learned

- Men and individuals who were younger or newly diagnosed with high blood pressure were more difficult to recruit and retain. These groups were more at risk for inadequate education about high blood pressure.
- Low participation by African American men may be related to a belief that it is the woman's role to direct the management of the men's high blood pressure treatment regimen, as well as a fear of disclosing feelings about the impact of high blood pressure and high blood pressure drugs on their sexuality.

- Using volunteers has its assets and liabilities. Volunteers are often recruited because of their interest and availability without giving consideration to their talents and skills. The pastor may have assumed that all RNs and leaders had the requisite talents and skills to organize and implement the high blood pressure education program in their faith-based organizations. From members' self-assessments, this was not always true. This may partially explain why some leaders did not implement the high blood pressure education program at their faith-based organization.

Reference: Smith ED, Merritt SL, Patel MK. Church-based education: an outreach program for African Americans with hypertension. *Ethnic Health* 1997;2(3):243–253.

4.4.3.5 Impact of a community-based multiple risk factor intervention on cardiovascular risk in African American families with a history of premature coronary disease

Intervention

- **Objective:**

- To determine the relative effectiveness of an alternative model of community-based care (CBC) compared to “enhanced” primary care (EPC) in reducing coronary heart disease risk in high-risk African American families.

- **Systems change:**

- A comprehensive community-based invention for African Americans at high risk of a coronary heart disease event, which was based on a sibling's hospitalization for such an event.

- **Detailed description of the intervention:**

- Participants were randomly assigned to either the CBC or EPC models and followed for 1 year.
- The CBC group received care in an easily accessible, non-clinical site in the community. The site had a comfortable conference room for counseling, a clinical room for phlebotomy and physical examination, an exercise room with a choice of music, and a living room with a children's play area. It was open from 9 A.M. to 5 P.M. Monday through Friday, with no appointments necessary, and evening and Saturday appointments available if requested. On each visit, the nurse practitioner performed a brief physical assessment including blood pressure measurements to monitor compliance. The community health worker counseled patients on diet, smoking cessation, and exercise and led two free exercise sessions per week at the YMCA. All participants requiring pharmacotherapy were given a pharmacy charge service card that allowed them to obtain their risk factor therapy prescriptions free of charge at any pharmacy. The average total visit was 30 minutes.
- The EPC group received the same risk-specific materials as the CBC group. Their primary care providers received results from various reports and guidelines. The free pharmacy charge services card was mailed to providers to give to their patients, and the benefit of the card was emphasized. Participants were given a full explanation of the card and instructed to ask their provider for it. Participants and their providers were sent information about the free YMCA

exercise programs. Participants were informed about resources available from their provider, and providers were encouraged to use them for their patients.

- **Setting:** Baltimore

- **Population:**

- **Inclusion criteria:** Siblings of African American patients with coronary heart disease, ages 30–59, blood pressure greater than or equal to 140/90 mm Hg, LDL cholesterol greater than or equal to 3.3 mmol/L, or currently smoking. Participants were included if they had no known history of coronary heart disease, no chronic glucocorticosteroid therapy, no autoimmune disease, no current cancer therapy, and no immediate life-threatening comorbidity.
 - **Sample size:** Baseline (N = 364); Intervention group (N=196); Control group (N=168)
 - **Characteristics:** mean age (48 years); education mean(13 years); female (64%); insured (80%); married (42%)

Key Findings

- The CBC group was twice as likely to achieve goal levels of LDL cholesterol and blood pressure compared with the EPC group, after controlling for reductions in baseline characteristics. The CBC group demonstrated a significant reduction in global coronary heart disease risk, whereas no reduction was seen in the EPC group.

Lessons Learned

- While the CBC intervention was superior, the EPC group demonstrated a smaller improvement in risk factors, suggesting that barrier-reducing enhancements to primary care may moderately improve individual risk factors.
- Even in the best-case scenario in which the major well-known risk barriers have been reduced, risk factor goals were not attained by a relatively large number of individuals in both groups.
- The superior results of the CBC group may be due in large part to the community health worker, who served as a culturally sensitive navigator through the systems of care including filling prescriptions, shopping for and preparing healthier foods, and accessing exercise facilities. Also, assistance of the nurse practitioner to the CBC group may have helped individuals' ability to manage pharmacotherapy effectively, as evidenced by more frequent use of the pharmacy card.
- Unexpectedly, the small exercise room at the CBC was a strong incentive because individuals could use it for a short period of time at their convenience.

Reference: Becker DM, Yanek LR, Johnson WR, Garrett P, Moy TF, Reynolds SS, et al. Impact of a community-based multiple risk factor intervention on cardiovascular risk in black families with a history of premature coronary disease. *Circulation* 2005;111:1298–1304.

4.4.4 Other Relevant Systems-Level Health Care Programs Focusing on the African American Community

4.4.4.1 Recruiting African American Men for cancer screening studies: applying a culturally based model

Intervention

■ **Objective:**

- To identify barriers to recruiting African American men to study Prostate Cancer Screening (PCS) and to determine whether relationships exist among religiousness, cancer fatalism (belief in the inevitability of death if cancer is present), and PCS factors (beliefs, attitudes, and behavior), which impede African American men's participation in PCS.

■ **Systems change:**

- A three component framework, involving health education, educational diagnosis of health behavior and cultural appropriateness of health behavior to increase recruitment for PCS.

■ **Detailed description of the intervention:**

- To successfully recruit African American men for the study, the PEN-3 model was used to understand factors that may shape health behavior and influence recruitment efforts. PEN-3 is a cultural empowerment model that highlights the role of the community and offers specific ways that cultural context may shape health education and values. It consists of three interdependent dimensions of health belief and behaviors that may influence the process of recruiting African American men for prostate cancer prevention studies: health education, the educational diagnosis of health behavior, and the cultural appropriateness of health behavior.
- Health education refers to the notion that individuals make health decisions consistent with their familial and community roles.
- Educational diagnosis of behavior refers to the notion that cultural attitudes, values, and beliefs arise from a cultural context where there may be forces that encourage or impede positive health behavior.
- The cultural appropriateness of health behavior provides a framework for categorizing culturally based behaviors: (a) existential behaviors are specific to a cultural group and may often be misunderstood but are not detrimental to health, (b) positive behaviors promote health, and (c) negative behaviors are harmful to health but must be understood within their cultural context before an attempt to change them is made.
- Men who were faith-based organization members were recruited through publicity in the faith community. This centered the recruitment in a supportive community while also addressing fatalistic orientations. Senior pastors articulated the value of PCS from a spiritual perspective in a simple message that men could easily understand.
- Fatalistic attitudes were addressed in a culturally appropriate way.

- **Setting:** African American religious community in the Los Angeles area
- **Population:**
 - **Inclusion criteria:** African American men from three mega faith-based organizations in the Los Angeles area.
 - **Sample size:** Screened (NA); Baseline (N = 655); Follow-up (NA)
 - **Characteristics:** Not described

Outcome Measurement

- **Design:** Descriptive
- **Indicators:** No outcomes from the intervention are measured.

Key Findings

- In recruiting African American men for PCS studies, the general views of men toward preventive health care must be considered as well as their specific concerns about the behavior that is being studied.
- Collaborating with community supporters of improved health behavior and community-based research, as well as addressing negative forces, were critical to successful recruitment.
- Careful reflection on how culturally based values may facilitate or impede efforts facilitated the research team's ability to incorporate appropriate cultural messages in the recruitment process.

Lessons Learned

- Efforts to recruit African American men for cancer prevention studies are enhanced by the application of culturally based models that provide a framework for understanding the unique concerns of African American men in cancer prevention research.
- Cultural beliefs should not simply be tolerated but understood. Social, religious, and other factors may influence the role of fatalism in the African American community.
- Cultural tailoring in recruitment is also an important strategy. Giving consideration to racial, gender, socioeconomic, educational, and religious characteristics of the proposed sample is key to maximizing participant recruitment.
- Viewing prevention efforts from a collective rather than exclusively an individualistic perspective, as well as identifying the specific concerns of African Americans regarding PCS, may be an important element in maximizing the recruitment of African American men and other cultural groups where the community has a primary role.

Reference: Abernethy AD, Magat MM, Houston TR, Arnold HL, Bjorck JP, & Gorsuch RL. Recruiting African American men for cancer screening studies: applying a culturally based model. *Health Educ Behav* 2005;32(4):441–451.

4.4.4.2 Systems-level and community-based interventions for diabetes control

Intervention

- **Objective:**

- The purpose of the diabetes investigation was to assess the strengths and gaps of current public health efforts to reduce the burden of diabetes in northeastern North Carolina in order to plan regional diabetes prevention efforts.

- **Systems change:**

- Resource assessment

- **Detailed description of the intervention:**

- In its analysis of diabetes, the North Carolina Partnership for Public Health reviewed in-depth, diabetes data currently available for the region through the Behavioral Risk Factor Surveillance System.
 - Since diabetes is one of the leading causes of death and disability in northeastern North Carolina, region-specific diabetes mortality and hospitalization data was also reviewed to assess the burden.
 - The Partnership assessed the current diabetes programs in each of the region's public health departments.

- **Setting:** Eastern North Carolina

- **Population:**

- **Inclusion criteria:** Northeastern North Carolina county health agencies
 - **Sample size:** Ten county health departments in northeastern North Carolina
 - **Characteristics:** Counties are rural and economically depressed

Outcome Measurement

- **Design:** Descriptive

- **Indicators:** Diabetes education and awareness, advocacy programs, marketing campaign

Key Findings

- Results of the 2003 survey showed that 12.5% of adults (39,205 people) in northeastern North Carolina reported that they have been told they have diabetes. Because about one-third of diabetes cases are undiagnosed, the true number of adults with diabetes in the area is most likely higher.
- African Americans and other minority groups are disproportionately affected by diabetes. The age-adjusted mortality rate for African Americans, Native Americans, and other non-white races combined was 1.9 times higher than for whites (189.7 compared to 98.9 deaths per 100,000).
- Six of the 10 health departments have primary prevention programs to increase awareness about diabetes (health communication). However, the Partnership determined that none of the health departments used a multimedia approach including radio, newspapers, and television, or a social marketing approach to determine elements or messages that could bring about behavior change within the region.

- The Partnership's strengths and gaps assessment of diabetes programs determined that five of the health departments have primary prevention programs to increase physical activity and improve nutrition in the community (community intervention).
- All health departments reported providing screening or testing for diabetes.
- Eight of the health departments have tertiary prevention programs or diabetes self-management and education programs to prevent the incidence of diabetic complications.

Lessons Learned

- The Partnership is addressing the lack of multimedia campaigns by launching a major social marketing campaign aimed at diabetes prevention. Funding will be provided through a recent appropriation of the state legislature to establish "public health incubators" across the state. Social marketing campaigns aimed at heart disease, stroke, and HIV/AIDS prevention will be developed in subsequent years. The major social marketing campaign aimed at diabetes has the potential for great impact with a limited amount of new resources.
- The Partnership is attempting to convince state legislators and state public health leaders to make an ongoing funding commitment to the region to tackle not only the diabetes, heart disease, stroke, and HIV/AIDS health issues of pressing concern, but also to strengthen the local public health infrastructure and improve its ability to assess, address, and assure the public's health. .

Reference: Dickson CW, Alexander JG, Earley BH, Riddle EKR. Northeastern North Carolina partnership for public health and health disparities in Northeastern North Carolina. NC Med J 2004;65(6):377–380.

4.4.4.3 A model for home care clinician and home health aide collaboration: diabetes care by nurse case managers and community health workers

Intervention

- **Objective:**
 - To determine whether a multifaceted, culturally sensitive, primary care-based behavioral intervention implemented by a nurse case manager and/or a community health worker could improve diabetes control in a sample of inner-city African Americans with type 2 diabetes.
- **Systems change:**
 - An educational-behavioral intervention provided interaction with a nurse case manager (NCM), community health worker (CHW) or both.
- **Detailed description of the intervention**
 - For this 2-year intervention, patients were randomly assigned to one of four groups: NCM Group, CHW Group, NCM+CHW Group, or the control group.
 - NCM Group received a 45-minute face-to-face clinic visit and telephone calls with a nurse who had a baccalaureate degree who was in training to be a diabetes educator. The nurse coordinated care according to the American Diabetes Association clinical practice recommendations including direct

patient care, management, education, counseling, follow-up, referrals, and physician feedback and prompting. Usual medical care was also provided.

- The CHW Group received 45–60 minute home visits by a CHW to facilitate preventive care. The CHW assisted with scheduling appointments, monitoring participant and family behavior, reinforcing adherence to treatment recommendations, mobilizing social support, and providing physician feedback. Usual medical care was also provided.
- The combined NCM and CHW Group received both sets of care described above, in addition to biweekly conferences to coordinate interventions and promote synergy. Usual medical care was also provided.
- The control group received usual medical care, which consisted of ongoing care from each patient's own health care professional and quarterly newsletters containing information on diabetes related topics.

■ **Setting:**

- East Baltimore

■ **Population:**

- **Inclusion criteria:** African Americans with type 2 diabetes
- **Sample size:** Screened: Screened (not stated); Baseline (N = 186); Follow-up (N = 149)
- **Characteristics:** mean age 59 years, female 77%, participants had diabetes for an average of 9 years, most (91%) were on medications

Outcome Measurement

- **Design:** Research study, a randomized clinical trial comparing outcomes in two groups receiving different interventions
- **Indicators:** Blood pressure, HDL, LDL, HbA1c, dietary risk

Key Findings

- All three experimental groups experienced improved diabetes control compared to the control group. The greatest improvements were seen with combined nursing and community health worker visits. No differences were statistically significant, but researchers say they were clinically significant.
- All three experimental groups experienced decreases in triglyceride levels and diastolic blood pressure compared to the control group, with the greatest decreases in the combined NCM+CHW group.
- The CHW Group experienced the largest improvement in dietary risk scores. Both the CHW and the combined NCM+CHW groups experienced larger increases in physical activity compared with the control group.
- All intervention groups experienced a weight gain. This was a disappointing finding because the intervention was intended to promote weight loss. The researchers speculated that improved adherence to anti-diabetic medications may have resulted in a weight gain, but they lacked data to confirm their speculation.

Lessons Learned

- The findings suggest the importance of nonprofessional community health workers on the diabetes care team. Many issues with which the CHW assisted patients—including finances, family responsibilities, and insurance—went beyond the traditional diabetes care provided in outpatient primary care settings.
- In light of a high percentage of abnormal results, it has been recommended that a follow-up program be developed. Several programs are being explored including educational mailings to participants' homes and phone calls from local National Medical Association physicians.
- The integration of NCMs and CHWs into the primary care setting can produce improvements in diabetic control and reduce the excess burden of diabetes-related complications in African Americans.
- Additional outcome improvements might have occurred if study personnel had provided the amount of interventions typically provided to home care patients with diabetes. In this study, improved outcomes occurred despite a lower than planned number of interventions. The number of face-to-face visits conducted by both the NCMs and CHWs was very modest compared with the number of home visits typically provided to home care patients with diabetes. Insufficient staff time and patient noncompliance were barriers to achieving this goal.

Reference : Vetter MJ, Bristow L, Ahrens J. A model for home care clinician and home health aide collaboration: diabetes care by nurse case managers and community health workers. *Home Healthcare Nurse* 2004;22(9):645–648.



5

General Health Resources

5.1 Overview

This chapter presents several organizations in which programs can potentially partner with to design or implement program interventions. The organizations listed in this chapter include associations for African American health professionals; African American men's health organizations; African American organizations more generally; multicultural health programs at the federal, state, and local levels; and cardiovascular health organizations. Also, nontraditional resources such as Historically Black Colleges and Universities (HBCUs) and African American fraternities and sororities are included. Although local faith-based organizations are often used as a resource by programs, several of these organizations lack central contact information at the national level; therefore they are not included in this chapter.

Professional Health Associations of African Americans

Resource	Aims	Description/Programs	Contact Information/Web site
Association of Black Cardiologists, Inc. (ABC)	To eliminate disparities related to cardiovascular disease in all people of color. Organizational goals: create leadership that drives a national agenda, achieve a reduction in cardiovascular disease through awareness, and establish a sufficient endowment to fund its programs.	ABC is a nonprofit organization founded in 1974 with an international membership of more than 600 health care professionals. ABC publications include resources on reducing cardiovascular risks among African Americans and people of color: http://www.abcardio.org/resources.htm ABC sponsors community health programs such as Not in Mama's Kitchen, a secondhand smoke prevention campaign: http://www.abcardio.org/commhealth.htm	5355 Hunter Road Atlanta, GA 30329 Phone: (404) 201-6600 E-mail: abcardio@abcardio.org Web site: http://www.abcardio.org/
The Association of Black Psychologists, Inc. (ABPsi)	To have a positive impact on the mental health of the national African American community through planning, programs, services, training, and advocacy.	ABPsi's objectives include (1) improving organizing skills and abilities to influence necessary change and (2) addressing significant social problems that affect the African American community and other segments of the population whose needs have not been met by society.	P.O. Box 55999 Washington, DC 20040-5999 Phone: (202) 722-0808 Fax: (202) 722-5941 E-mail: abpsi_office@abpsi.org Web site: http://www.abpsi.org
Black Caucus of Health Workers (BCHW)	To improve the health of African Americans through relevant database development, professional development, policy analysis, research, and legislative review.	BCHW's mission is to improve, advance, and maintain the quality of life for African Americans. Established in 1968 and affiliated with the American Public Health Association (APHA), the BCHW works with APHA and other health-related groups, to improve the health status of African Americans through (1) professional development, (2) health policy analysis, (3) research, and (4) legislative review. BCHW provides an entry point to APHA for African American professional and paraprofessional public health workers. It provides programs that explore the special nature of public health problems facing people of color in the United States, including poverty, discrimination, and lack of health care access; equal opportunity for work force entry and advancement; and related issues. Local BCHW chapters and affiliates give African American health professionals the opportunity to participate in recruitment, mentoring, career development, continuing education, service and delivery, and research.	c/o University of Illinois at Chicago School of Public Health 2121 W. Taylor, Rm. 208 Chicago, IL 60612 Phone: (312) 355-2951 Web site: http://www.saaphi.org/bchwmissonf.doc
The Black Young Professionals' Public Health Network, Inc. (The Network)	To promote networking opportunities for junior-level public health professionals and enhance awareness around issues relevant to the health of African Americans.	The Network was established in recognition of an increased need for more deliberate and concerted opportunities for professional development (education, employment, and advancement) of African Americans in APHA and the public health field. It also strives to increase communication between traditional Schools of Public Health and the newly forming M.P.H. programs at Historically Black Colleges and Universities (HBCUs).	P.O. Box 1954 Mount Pleasant, SC 29465-1954 Phone: (843) 819-4388 E-mail: bypphn@yahoo.com Web site: www.bypphn.org
National Black Nurses Association, Inc. (NBNA)	To provide a forum for collective action by African American nurses to investigate, define, and advocate for the health care needs of African Americans and to implement strategies that ensure access to health care equal to, or above, health care standards of the larger society. Objectives include building consumer knowledge and understanding of health care issues and educating, mentoring, and providing career development for nurses.	All chapters provide screening and health education activities related to cardiovascular disease. Chapters provide hypertension screening and referral; smoking-cessation intervention programs; cholesterol screening and referral; CPR training; and education regarding heart attack prevention and early treatment. NBNA holds seats on committees within the National Heart, Lung and Blood Institute (the Hypertension, Cholesterol Education, Heart Attack, and Smoking committees) and the International Society for Hypertension in Blacks (ISHIB). Chapters have been involved in national research projects in collaboration with ISHIB.	8630 Fenton St, Suite 330 Silver Spring, MD 20910-3803 Phone: (301) 589-3200 or 1-800-575-6298 E-mail: NBNA@erols.com Web site: http://www.nbna.org

National Medical Association (NMA)	To advance the art and science of medicine for people of African descent through education, advocacy, and health policy; promote health and wellness; eliminate health disparities; and sustain physician viability.	For more than 30 years, the NMA has served as the collective voice of African American physicians. One of NMA's activities is providing patients and the public with information about various conditions and interventions, including asthma and smoking cessation. NMA also conducts an annual meeting and colloquiums, convenes consensus panels concerning issues related to health disparities, and publishes a journal. Programs include the Black Bag Mentoring Program and the Turning Education into Action (TEA) Talk©Link to NMA programs: http://www.nmanet.org/index.php/NatProgList/index	1012 Tenth St., NW Washington, DC 20001 Executive Offices Phone: (202) 347-1895 Fax: (202) 898-2510 Web site: http://www.nmanet.org/
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Health Programs Targeting African American Men

Resource	Aims	Description/Programs	Contact Information/Web site
100 Black Men of America, Inc.	To improve the quality of life within African American communities and to enhance educational and economic opportunities for all African Americans.	100 Black Men of America, Inc., is a national organization committed to the intellectual development of youth and the economic empowerment of the African American community, based on the following precepts: respect for family, spirituality, justice, and integrity. This organization has a Health and Wellness Initiative containing programs such as The Partners in Prevention (PIP) program, which was established by the National Black Leadership Initiative on Cancer II (NBLIC II) under the Morehouse School of Medicine. It is a national intervention program for African Americans and other people of color and focuses on increasing awareness, educating, and providing diagnostic examinations and follow-up in the areas of hypertension, heart disease, diabetes, and cancer. Medical experts (cardiologists, endocrinologists, urologists, and nutritionists) and community-based organizations (American Heart Association, Association of Black Cardiologists, American Diabetes Association, and American Cancer Society) provide services as screeners, workshop facilitators, and educators. Client follow-up is conducted by an independent, medical expert to encourage further assessment and a formal diagnosis by a health care practitioner(s). Data gathered from pre-test, post-test, and screenings are published in a comprehensive report.	141 Auburn Ave. Atlanta, GA 30303 Phone: (404) 688-5100 Web site: http://www.100blackmen.org
Black Men's Health Initiative (BMHI)	To educate African American men about the risks and complications of chronic disease.	The BMHI was chartered as a nonprofit corporation in South Carolina in March 2005 and focuses on community competent prevention education and innovative interventions that will have direct results in lowering risk and improving the health status of African American men. The BMHI sponsors the "Putting DASH in Our Diets" project to reduce hypertension and stroke in African American men. The organization makes presentations, holds discussions, and provides blood pressure screenings through men's groups at faith-based organizations located in counties/towns with high prevalence of cardiovascular disease.	William S. Robinson, M.A. 4800 University Drive #4B Durham, NC 27707 Phone: (919) 237-2617 Fax: (919) 237-2618 E-mail: BlackMHI@aol.com Web site: http://www.bmhi.org/
The National Black Men's Health Network	To provide education and raise public awareness about the excessive morbidity and mortality rates in the African American community in general and among African American men in particular.	Established in 1987, The National Black Men's Health Network provides education and awareness information on African American male health..	250 Georgia Ave., Suite 321 Atlanta, GA 30312 Phone: (404) 524-7237 E-mail: info@nbmhn.net Web site: http://www.nbmhn.net/ Founder and President: Jean Bonhomme, M.D., M.P.H.

Project Brotherhood Black Men's Clinic	To provide primary, holistic health care and improve health awareness in African American men by creating a culturally and gender-specific environment.	Project Brotherhood provides medical and social services necessary to improve the overall health and well-being of African American men in the Chicago community. A weekly clinic session is available in the early evening. Medical care is not dependent solely on appointments; walk-in visits are allowed. Innovative strategies that take into account the disenfranchisement of African American men are used to recruit and retain African American men into primary care. Free haircuts and food, as well as transportation assistance, are made available for every clinic session.	6337 S. Woodlawn Ave. Chicago, IL 60637 Phone: (773) 753-5500 E-mail: ProjectBrotherhood@hotmail.com Web site: http://www.projectbrotherhood.net/ Founder: Dr. Eric Whitaker Co-Director: Dr. Pete Thomas
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Programs Targeting African Americans

Resource	Aims	Description/Programs	Contact Information/Web site
Congressional Black Caucus Foundation, Inc. (CBCF)	To serve as the nonpartisan policy-oriented catalyst educating future leaders and promoting collaboration among legislators, business leaders, minority-focused organizational leaders, and organized labor to effect positive and sustainable change in the African American community.	<p>The CBCF is a national organization that focuses on leadership education, public health, and economic development.</p> <p>Its activities include the following:</p> <p>Black Health Empowerment Project</p> <p>A public health initiative implemented in response to the escalating rates of overweight and obesity among African American adults, adolescents, and children. The program educates African Americans about obesity's link to chronic health conditions and introduces strategies for achieving and maintaining a healthy weight.</p> <p>The Health and Wellness of the African-American Male America's Challenge; Our Imperative</p> <p>CBCF sponsored this public health event April 19–20, 2007, which consisted of a series of speakers discussing health issues pertaining to African American men, including mental health concerns, HIV/AIDS, prostate cancer, and cardiovascular health. Link to agenda and presenters: http://www.cbcfinc.org/pdf/health_braintrust_agenda.pdf</p>	1720 Massachusetts Ave., NW Washington, DC 20036 Phone: (202) 263-2800 Fax: (202) 775-0773 E-mail: info@cbcfin.org
National Association for the Advancement of Colored People (NAACP)	To ensure the political, educational, social, and economic equality of rights of all persons and to eliminate racial hatred and racial discrimination.	Among NAACP Health Department's goals are to; develop national health education initiatives; expand community outreach; and sponsor collaborative programs with other national and local health organizations. One of its target areas is reducing disparities in obesity and other related diseases such as diabetes, hypertension, and heart disease.	NAACP National Headquarters 4805 Mt. Hope Drive, Baltimore MD 21215 Phone: (410) 580-5777 Toll Free: (877) NAACP-98 Web site: http://www.naACP.org/home/index.htm
National Caucus and Center on Black Aged, Inc. (NCBA)	To improve the quality of life for elderly African American and low-income minorities.	<p>NCBA sponsors the following:</p> <p>The Health and Wellness Program: Prevention and control of chronic diseases in elderly African Americans, emphasizing cancer (prostate, colorectal, breast, and cervical), diabetes, cardiovascular disease, hypertension, substance abuse, and HIV/AIDS.</p> <p>The program provides public awareness and community health promotion dissemination campaigns and technical assistance and training. It promotes healthy living and prevention through nutrition, physical activity, early detection, and screening with the intent of changing behaviors.</p>	1220 L St., NW, Suite 800 Washington, DC 20005 Phone: (202) 637-8400 Fax: (202) 347-0895 E-mail: info@ncba-aged.org Web site: http://www.ncba-aged.org Angie Boddie Director of Health Programs Phone: (202) 637-8400; Ext. 136 E-mail: ABoddie@ncba-aged.org

National Urban League	<p>To enable African Americans to secure economic self-reliance, parity, power, and civil rights. One of the program's focuses is health and quality of life empowerment.</p> <p>National Urban League is the nation's oldest and largest community-based movement devoted to empowering African Americans to enter the economic and social mainstream. There are more than 100 local affiliates of the National Urban League located in 35 states and the District of Columbia providing direct services to more than 2 million people through programs, advocacy, and research.</p> <p>National Urban League has worked with CDC, the National Eye Institute of NIH, and the American Legacy Foundation, among other organizations, to address prevention strategies concerning diabetes, cancer, Alzheimer's, and depression. Two main initiatives are as follows:</p> <p>The Lift Every Voice Diabetes Education Program: Targets the prevention and treatment of diabetes</p> <p>The National African-American Wellness Initiative: A Web site promoting proper nutrition, physical fitness, health care, and prevention of disease: http://www.maketheeverydropcount.com/wellness/wellness-initiative.html</p>	<p>120 Wall St., 8th Floor New York, NY 10005 Phone: (212) 558-5300 Web site: http://www.nul.org/</p>
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Minority/Multicultural Health Organizations and Programs (Federal)

Resource	Aims	Description/Programs	Contact Information/Web site
National Institutes of Health's (NIH) National Center on Minority Health and Health Disparities (NCMHD)	To improve and protect the health of racial and ethnic minority populations through the development of health policies and programs that will eliminate health disparities.	As a part of the NIH, NCMHD conducts and supports basic, clinical, social, and behavioral research; promotes research infrastructure and training; fosters emerging programs; disseminates information; and reaches out to minority and other health disparity communities.	6707 Democracy Blvd., Suite 800 Bethesda, MD 20892-5465 Phone: (301) 402-1366 Fax: (301) 480-4049 E-mail: NCMHDInfo@od.nih.gov Web site: http://ncmhd.nih.gov/
Office of Minority Health (OMH)	To improve and protect the health of racial and ethnic minority populations through the development of health policies and programs that will eliminate health disparities.	<p>Within the U.S. Department of Health and Human Services (DHHS), OMH develops health policies and programs to eliminate health disparities, including initiatives geared toward African Americans. Programs include the following:</p> <p>9 A Day for African American Men: A national campaign to encourage African American men to eat 9 servings of fruits and vegetables a day.</p> <p>The Community Initiatives to Eliminate Stroke (CITIES) Program: Grants intended to increase community awareness and knowledge and promote the prevention of hypertension and stroke. http://www.omhrc.gov/templates/content.aspx?ID=2837&lvl=3&lvIID=24</p> <p>Closing the Health Gap Campaign: An educational campaign designed to help make good health an important issue among racial and ethnic minority populations, who are affected by serious diseases and health conditions at far greater rates than other Americans. http://www.omhrc.gov/templates/content.aspx?ID=2840&lvl=3&lvIID=24</p> <p>Take a Loved One for a Checkup day: Part of a national campaign by DHHS that focuses on the health gap between racial and ethnic minorities and the general population. http://www.omhrc.gov/templates/content.aspx?ID=2839&lvl=3&lvIID=24</p> <p>Thirty-two states have established an official minority health entity (such as an office, commission, council, center, branch, project, or other unit) either through executive or legislative branch action. Other states have designated minority health contacts. Contact information on State Offices of Minority and Multicultural Health Liaisons: http://www.omhrc.gov/images/stateliaisons.htm</p>	<p>The Tower Building, 1101 Wootton Parkway, Suite 600 Rockville, MD 20852 Phone: (240) 453-2882 Fax: (240) 453-2883 E-mail: info@omhrc.gov Web site: http://www.omhrc.gov/</p>

**Project EXPORT:
Excellence in
Partnerships
for Community
Outreach and
Research on
Disparities in
Health and
Training**

To build research capacity at designated institutions enrolling a significant number of students from health disparity populations and to promote participation and training in biomedical and behavioral research among such populations.

Funded by the National Center on Minority Health and Health Disparities (NCMHD), this center of excellence program was authorized by the Minority Health and Health Disparities Research and Education Act of 2000 and is in support of the DHHS initiatives to address and ultimately eliminate health disparities. The centers focus specifically on health disparities research, community outreach, and training. Among the EXPORT grantees are HBCUs such as Florida A & M University, Howard University, Jackson State University, Meharry Medical College, Morehouse School of Medicine, and University of the Virgin Islands.

EXPORT Centers at HBCUs:*

Florida A & M University (Tallahassee, FL) <http://www.projectchoice.org/index.cfm>

Howard University (Washington, DC) http://www.cpnahs.howard.edu/ctr_excellence/Default.htm

Jackson State University (Jackson, MS) <http://www.jsums.edu/~cmh/>

Meharry Medical College (Nashville, TN) <http://export.mmc.edu/>

Morehouse School of Medicine (Atlanta, GA) <http://web.msm.edu/EXPORT/index.html>

National Center for Primary Care <http://web.msm.edu/ncpc/mission.htm>

Morehouse College (Atlanta, GA) <http://www.morehouse.edu/centers/phsi/disparities.html>

Other Relevant Health Disparities Centers with Community-Based Research on Best Practices for African Americans:.

The Hopkins-Morgan Center for Health Disparities Solutions (HCHDS)

A collaboration between Johns Hopkins Bloomberg School of Public Health and Morgan State University (an HBCU) in Baltimore, MD <http://www.jhsph.edu/healthdisparities/index.html>

University of Pittsburgh EXPORT Center and Center for Minority Health <http://www.cmh.pitt.edu/history.asp>

*A Web link to a complete list of HBCUs can be found in the Historically Black Colleges and Universities section.

NCMHD's Center of Excellence Web site:
http://ncmhd.nih.gov/our_programs/centerOfExcellence.asp

Minority/Multicultural Health Organizations and Programs (National)

Resource	Aims	Description/Programs	Contact Information/Web site
Community Voices: Health Care for the Underserved	To eliminate men's health disparities.	<p>With its national headquarters located at the Morehouse School of Medicine, Community Voices: Health Care for the Underserved is a 5-year national health initiative. It is a group of community-based demonstration projects dedicated to providing greater access to quality health care to the underserved and uninsured people in America.</p> <p>The program founded this country's first Men's Health Clinic in Baltimore, MD, and continues to spread this work across other sites. Link to descriptions of Community Voices' Men's Health Best Practices: http://www.communityvoices.org/Uploads/Interventions_that_work_00108_00189.pdf</p>	<p>Melva B. Robertson Health Communications Specialist National Center for Primary Care Morehouse School of Medicine 720 Westview Dr. SW Atlanta, GA 30310 Phone: (404) 752-1977 Fax: (404) 752-1198 Email: mrobertson@msm.edu Web site: http://www.communityvoices.org/Default.aspx</p>
Health Power for Minorities	To eliminate racial and ethnic health disparities by promoting multicultural health improvement..	<p>Health Power provides a Web site with culturally relevant health information, printed materials (brochures, tip sheets, newsletters), consultative and training services to other organizations, and collaboration with other organizations to achieve mutual purposes.</p> <p>Its Web site includes a "Men's Health Channel" (http://healthpowerforminorities.org/specific/men.cfm) and "African American Channel" (http://healthpowerforminorities.org/specific/aaChannel/index.cfm) with links to health issues relevant to men, including hypertension.</p>	<p>Norma J. Goodwin, M.D. 3020 Glenwood Road Brooklyn, NY 11210 Phone: (718) 434-8103 E-mail: njgoodwin@healthpowerforminorities.org Web site: http://www.healthpowerforminorities.org</p>
National Minority Quality Forum (NMQF)	To strengthen national and local efforts to eliminate the disproportionate burden of premature death and preventable illness in racial and ethnic minorities through the use of evidence-based, data-driven initiatives.	<p>NMQF is a research and educational organization dedicated to ensuring that high-risk racial and ethnic populations and communities receive optimal health care. Activities include conducting research and analyses, fostering cultural competency among health care providers, and evaluating the effect of policy initiatives.</p> <p>Healthy Heart Initiative</p> <p>This pilot program is designed to strengthen the capacity of local communities in Atlanta and Dallas to eliminate the disproportionate burden of premature death and preventable illness from cardiovascular disease (CVD). It mobilizes local government and health care community leaders, businesses, physicians, medical centers, faith-based organizations, and the media to promote CVD awareness, prevention, and treatment. The program offers screening events held in target zones, with dissemination of resulting data; patient education about the importance of proper diet; and patient referrals to health care facilities for treatment and follow-up.</p> <p>The results are intended to serve as a model for conducting CVD programs in other communities with CVD disparities. Link to participating organizations in the pilot program: http://www.nmqf.org/healthy_heart_beat.aspx</p>	<p>1200 New Hampshire Ave., NW, Suite 575 Washington, DC 20036 Phone: (202) 223-7560 Fax: (202) 223-7567 Web site: http://www.nmqf.org</p>

Minority/Multicultural Health Programs (State and Local)

Resource	Aims	Description/Programs	Contact Information/Web site
Center for Multicultural Health	To promote the health and well-being of diverse communities through innovative health advocacy, health promotion, disease prevention, and immigrant and refugee service programs.	<p>Since 1976, the Center for Multicultural Health has worked in partnership with individuals, groups, and organizations in the community to promote health and well-being in diverse communities. Programs include the following:</p> <p>“Let’s Talk About It” Prostate Cancer Education Program</p> <p>Educational forums are placed throughout the Seattle area to create an open dialogue to help educate African American men over 40 about their risk for prostate cancer. This also encourages them to talk with their doctor about the disease.</p> <p>REACH 2010</p> <p>Community-based diabetes education, support groups, and self-management classes for African Americans.</p>	105-14th Ave., Suite 2C Seattle, WA 98122 Phone: (206) 461-6910 Fax: (206) 461-4890 E-mail: cmch@cschc.org Web site: http://www.multi-culturalhealth.org/
Grand Rapids African American Health Institute (GRAAHI)	To promote health care parity in the Grand Rapids African American community through advocacy, education, and research to achieve positive health outcomes	<p>An independent, not-for-profit organization funded by numerous entities, GRAAHI serves the Grand Rapids African American community. It includes the following: A Comprehensive Study of Cardiovascular Health in the African American Population in West Michigan (CHAAP), a research study focusing on cardiovascular disease and its risk factors and on meeting benchmarks in treatment guidelines. The program aims at drawing attention to these benchmarks and raising awareness around “treatment to goal.”</p> <p>The program’s tool is a registry including personal health information from all participants around their CVD risk factors. The program determines each participant’s risk (Framingham risk score), compares the collected data with current treatment guidelines to determine whether participants are treated to goal. All information is shared with each participant in the form of “risk assessments” to help the individual understand his or her benchmarks, areas in need of attention (e.g., physical activity, nutrition), and how to improve visits with primary care providers. The information is also shared with physicians (with participants’ permission).</p> <p>http://www.graahi.org/Default.aspx?tabid=49</p>	301 Michigan St. NE, Suite 400 Grand Rapids, MI 49503 Phone: (616) 331-5831 Fax: (616) 331-5839 E-mail: info@graahi.org Web site: http://www.graahi.org Dr. Kim Ludwig CHAAP Program Director Phone: (616) 331-5835 E-mail: kim.ludwig@graahi.org
Henry Ford System Institute on Multicultural Health (IOMH)	To improve the health of community members in the Detroit metropolitan area.	<p>The IOMH conducts AIMHI (African American Initiative for Male Health Improvement): a community-based screening and education program focusing on African American men in the Detroit metropolitan area. This program has provided blood pressure, diabetes, cholesterol screening, and stroke risk assessment for more than 9,000 people since 1999. Screenings are conducted at two community health resource centers and through mobile screenings at other community locations. After screening sessions those with abnormal results receive follow-up calls to see whether results were confirmed by their primary care physician and to provide assistance in accessing the health care system as needed.</p> <p>Previously, the IOMH conducted Heartbeat: A Program to Improve Early Detection of High Blood Pressure in African American Men, which provided blood pressure screening to African American men in barbershops and offered education focusing on cardiovascular disease and hypertension. The program also collected information from participants about their health practices, attitudes, and beliefs.</p>	1 Ford Place, Suite 3E Detroit, MI 48202 Phone: (313) 874-4285 Fax: (313) 874-6944 Web site: http://www.henryfordhealth.org/body.cfm?id=39785 Denise Perkins, M.D., Ph.D. Director of Henry Ford Health System IOMH E-mail: dwhite2@hfhs.org

Cardiovascular Health Organizations

Resource	Aims	Description/Programs	Contact Information/Web site
American Heart Association (AHA)	To fund research and educational programs to reduce the burden of cardiovascular disease.	<p>The AHA focuses its planning on three areas: cardiovascular science, cardiovascular education and community programs, and fund-raising.</p> <p>AHA sponsors an annual scientific session, at which researchers, clinicians, and health care professionals from around the world discover the latest findings in cardiovascular research. Link: http://scientificsessions.americanheart.org/portal/scientificsessions/ss</p>	<p>7272 Greenville Ave. Dallas, TX 75231 Phone: 1-800-242-8721 Web site: http://www.americanheart.org/presenter.jhtml?identifier=1200000</p>
American Stroke Association (ASA)	To reduce risk, disability, and death from stroke through research, education, fund-raising, and advocacy (a division of the American Heart Association).	ASA sponsors "Power To End Stroke" (PTES), an aggressive education and awareness campaign that embraces and celebrates the culture, energy, creativity, and lifestyles of African Americans. It unites African Americans to make an impact on the high incidence of stroke within their communities.	Web site: http://www.strokeassociation.org/presenter.jhtml?identifier=1200037
American Society of Hypertension, Inc. (ASH)	To organize and conduct educational activities designed to promote and encourage the development, advancement, and exchange of scientific information in all aspects of research, diagnosis, and treatment of hypertension and related cardiovascular diseases.	<p>The Society fulfills its mission by holding annual meetings that provide participants with the opportunity to exchange information and ideas with more than 3,000 fellow scientists from around the world.</p> <p>ASH Chapter information: http://www.ash-us.org/chapters/chapters_overview.htm</p> <p>Link to designated specialists in clinical hypertension: http://www.ash-us.org/specialist_program/directory.htm#</p> <p>Link to journals and publications: http://www.ash-us.org/pub/index.htm</p>	<p>148 Madison Ave., 5th floor New York, NY 10016 Phone: (212) 696-9099 Fax: (212) 696-0711 E-mail: ash@ash-us.org Web site: http://www.ash-us.org/</p>
International Society on Hypertension in Blacks (ISHIB)	To eliminate cardiovascular health disparities	<p>ISHIB achieves its mission through professional and public education, targeted clinical research, and by facilitating the delivery of higher quality cardiovascular health care.</p> <p>ISHIB sponsors accredited professional educational programs; participates in patient and community education, is involved in the publication of the journal <i>Ethnicity & Disease</i>, and hosts an annual International Interdisciplinary Conference.</p> <p>Among ISHIB's community outreach program are Unite for Healthy Hearts! and the Worship-Site Health Education Program (WSHEP): http://www.ishib.org/PR_comout.asp</p>	<p>157 Summit View Dr. McDonough, GA 30253 Phone: (404) 880-0343 Fax: (404) 880-0347 E-mail: inforequest@ishib.org Web site: http://www.ishib.org/</p>

Other Nontraditional Resources

Historically Black Colleges and Universities (HBCUs)*

A complete list of HBCUs is located on the National Association for Equal Opportunity in Higher Education Web site: <http://www.nafeo.org/fullmemberlist.php>

*A list of HBCU programs funded by NIH EXPORTs grant is found in the Minority/Multicultural Health Organizations and Programs (Federal) section.

African American Fraternities

Web sites of national organizations may provide contact information for local affiliates

Fraternity Name	Contact Information/Web Site of National Headquarters
Alpha Phi Alpha	22313 Saint Paul St. Baltimore, MD 21218-5211 Phone: (410) 554-0040 Fax: (410) 554-0054 Web site: http://www.alpha-phi-alpha.org/
Iota Phi Theta	1600 N. Calvert St. Baltimore, MD 21202 Phone: (410) 514-5225 Fax: (866) 510-1301 Web site: http://www.iotaphitheta.org/index.html
Kappa Alpha Psi	2322-24 North Broad St. Philadelphia A 9132-4590 Phone: (215) 228-7184 Fax: (215) 228-7181 Web site: http://www.kappaalphapsi1911.com/index.asp
Omega Psi Phi	3951 Snapfinger Parkway Decatur, GA 30035 Phone: (404) 284-5533 Fax: (404) 284-0333 Web site: http://www.omegapsiphifraternity.org/generalpublic.asp
Phi Beta Sigma	145 Kennedy St., NW Washington, DC 20011-5294 Phone: (202) 726-5434 Fax: (202) 882-1681 Web site: http://www.pbs1914.org/default.asp
Phi Beta Sigma health initiative, "Living Well Brother to Brother," seeks to partner with community groups/organizations and health care institutions to reduce health conditions that adversely affect African American men. Link to the program guide: http://www.pbs1914programs.org/9.html	

African American Sororities

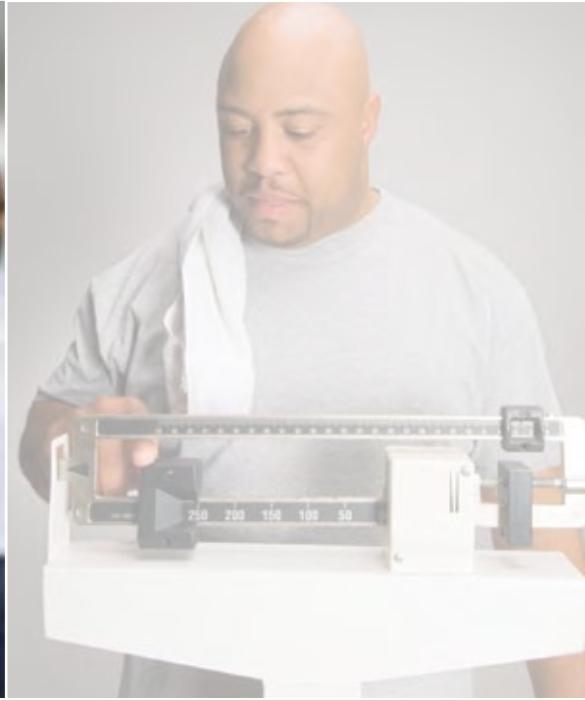
Web sites of national organizations may provide contact information for local affiliates

Sorority Name	Contact Information/Web Site of National Headquarters
Alpha Kappa Alpha	5656 South Stony Island Ave. Chicago, IL 60637 Phone: (773) 684-1282 Web site: www.aka1908.com
Chi Eta Phi (African American Nurses' Sorority)	3029 13th Street, NW Washington, DC 20009 Phone: (202) 232-3858 Fax: (202) 232-3460 Web site: http://www.chietaphi.com/
Delta Sigma Theta	1707 New Hampshire Ave., NW Washington, DC 20009 Phone: (202) 986 - 2400 Fax: (202) 986 - 2513 Web site: www.deltasigmatheta.org
Sigma Gamma Rho	1000 Southhill Drive, Suite 200 Cary, NC 27513 Phone: (919) 678-9720 Fax: (919) 678-9721 Web site: http://www.sgrho1922.org/
Zeta Phi Beta	1734 New Hampshire Ave., NW Washington, DC 20009 E-mail: ihq@zphib1920.org Web site: www.zphib1920.org

Masons

Web site of the national organization may provide contact information for local affiliates

Lodge Name	Web Site of National Headquarters
Most Worshipful Prince Hall Grand Lodges	African Lodge No. 459 24 Washington Street P.O. Box 173 Dorchester, MA. 02121 Phone: (617)-445-1145 Fax: (617)-445-8698 E-mail: Info@AfricanLodge459.org Web site: http://www.princehall.org/



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Appendix A

Key Terms and Phrases Used to Find Programs or Interventions for African American Men with High Blood Pressure in the Practice Literature

Searches were conducted using the following key terms when searching foundation and organization Web sites, government agency Web sites, and common search engines:

To ensure a focus on African American men:

- “African Americans”
- “Black”
- “Blacks”
- “Men”

To focus on hypertension:

- “hypertension”
- “hypertension/prevention”
- “hypertension/control”
- “hypertension programs”
- “high blood pressure”
- “high blood pressure/prevention”
- “high blood pressure/control”

To explore related work with heart disease and stroke:

- “heart disease”
- “heart attack”
- “heart prevention”
- “stroke”
- “stroke prevention”
- “cardiovascular disease”
- “cardiovascular health”

To capture appropriate interventions or programs:

- “programs”
- “health promotion”
- “provider”
- “providers”
- “knowledge”
- “awareness”

To explore the work of particularly relevant foundations, government agencies, organizations, and associations:

- “American Heart Association”
- “Centers for Disease Control and Prevention”
- “Association of Black Cardiologists”
- “National Institutes of Health”
- “Department of Health and Human Services”

Located through snowball searches:

- “The Center for African American Health”
- “Stroke Belt Elimination Initiative”
- “International Society on Hypertension in Blacks”
- “Institute for African American Health”
- “Cardiovascular wellness centers”
- “Joslin”
- “American Diabetes Association”
- “National High Blood Pressure Education Program”
- “Health Power for Minorities”
- “California Black Health Network”

Appendix B

Search Strategy to Find Peer-Reviewed Articles Relevant to Systems-Level Interventions for African American Men with High Blood Pressure

Searches were conducted using the following MeSH terms in PubMed.

To ensure a focus on African American Men:

“African Continental Ancestry Group”[MeSH] **OR**
“African Americans”[MeSH]
“Men”[MeSH]

To focus on hypertension:

“Hypertension/adverse effects”[MeSH] **OR**
“Hypertension/complications”[MeSH] **OR**
“Hypertension/diagnosis”[MeSH] **OR**
“Hypertension/economics”[MeSH] **OR**
“Hypertension/epidemiology”[MeSH] **OR**
“Hypertension/ethnology”[MeSH] **OR**
“Hypertension/etiology”[MeSH] **OR**
“Hypertension/mortality”[MeSH] **OR**
“Hypertension/physiopathology”[MeSH] **OR**
“Hypertension/prevention and control”[MeSH] **OR**
“Hypertension/psychology”[MeSH] **OR**
“Hypertension/statistics and numerical data”[MeSH] **OR**
“Hypertension/therapy”[MeSH]

To explore related work on prostate cancer:

“Prostatic Neoplasms”[MeSH] **OR**
“early prostate cancer antigen, human”[Substance Name]

To explore related work on diabetes:

“Diabetes Insipidus”[MeSH] **OR**
“Diabetes Mellitus”[MeSH] **OR**
“Diabetes Mellitus, Type 2”[MeSH] **OR**
“Diabetes Mellitus, Type 1”[MeSH] **OR**
“Diabetes Complications”[MeSH]

To capture appropriate interventions or studies:

“Intervention Studies”[MeSH]
“Attitude to Health”[MeSH]
“Outcome and Process Assessment (Health Care)”[MeSH]
“Health Promotion”[MeSH] **OR**
“Health Education”[MeSH]

Limits:

English language
Publication Date from January 1990 to March 2008
Humans



Notes

