



Novel Approaches to Achieve Health Equity: Lessons for Addressing Disparities in Parkinson's Disease

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Presenter Disclosures

Joseph Ravenell, MD, MS

No relationships to disclose

Course Objectives

1. Discuss a health equity research framework
2. Case study: Interventions to address hypertension in black men
3. Discuss health equity research approaches in Parkinson's Disease

What are Health Disparities?





Health disparities are defined as significant differences between one population and another. The Minority Health and Health Disparities Research and Education Act of 2000, which authorizes several HHS programs, describes these disparities as differences in "the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates."

U.S. Department of Health and Human Services Office of Minority Health

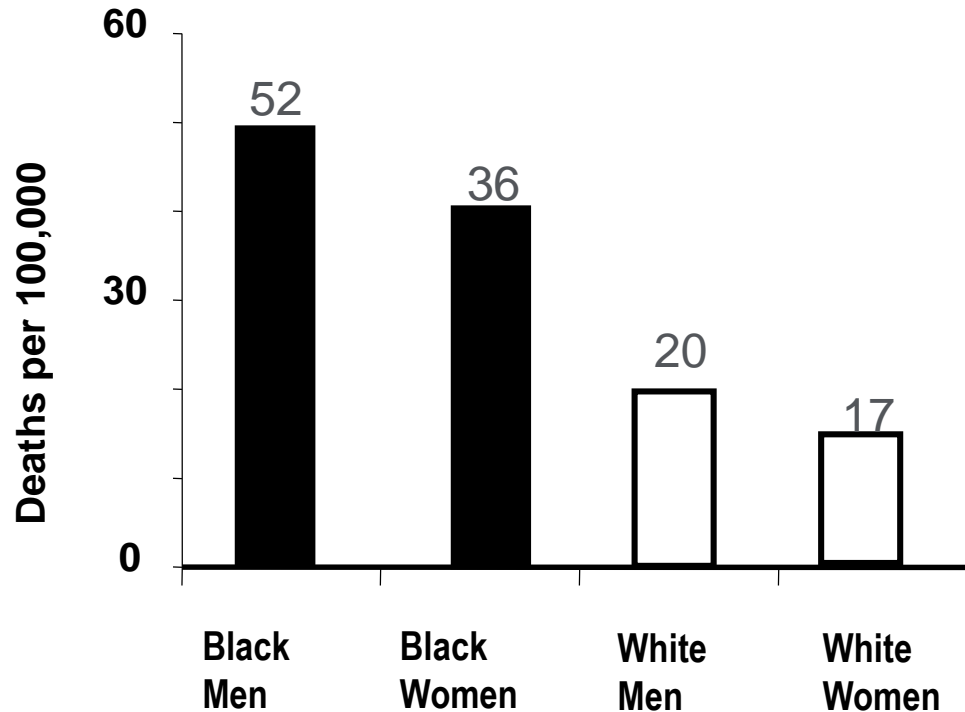
Health Equity

“Health equity means that everyone has a fair and just opportunity to be healthier. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.”

National Institute on Minority Health and Health Disparities Research Framework

		Levels of Influence*			
		Individual	Interpersonal	Community	Societal
Domains of Influence <i>(Over the Lifecourse)</i>	Biological	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure
	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
	Physical/Built Environment	Personal Environment	Household Environment School/Work Environment	Community Environment Community Resources	Societal Structure
	Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Social Norms Societal Structural Discrimination
	Health Care System	Insurance Coverage Health Literacy Treatment Preferences	Patient–Clinician Relationship Medical Decision-Making	Availability of Services Safety Net Services	Quality of Care Health Care Policies
Health Outcomes		 Individual Health	 Family/ Organizational Health	 Community Health	 Population Health

Excessive CV Mortality from Hypertension in Black Men



Barriers to Hypertension Control

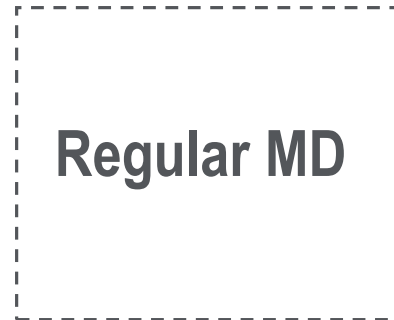
**Uncontrolled BP
in Black Men**

**Controlled BP
in Black Men**

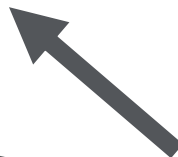
Healthcare-
Seeking Behavior



Regular MD



Cost/Access
Trust

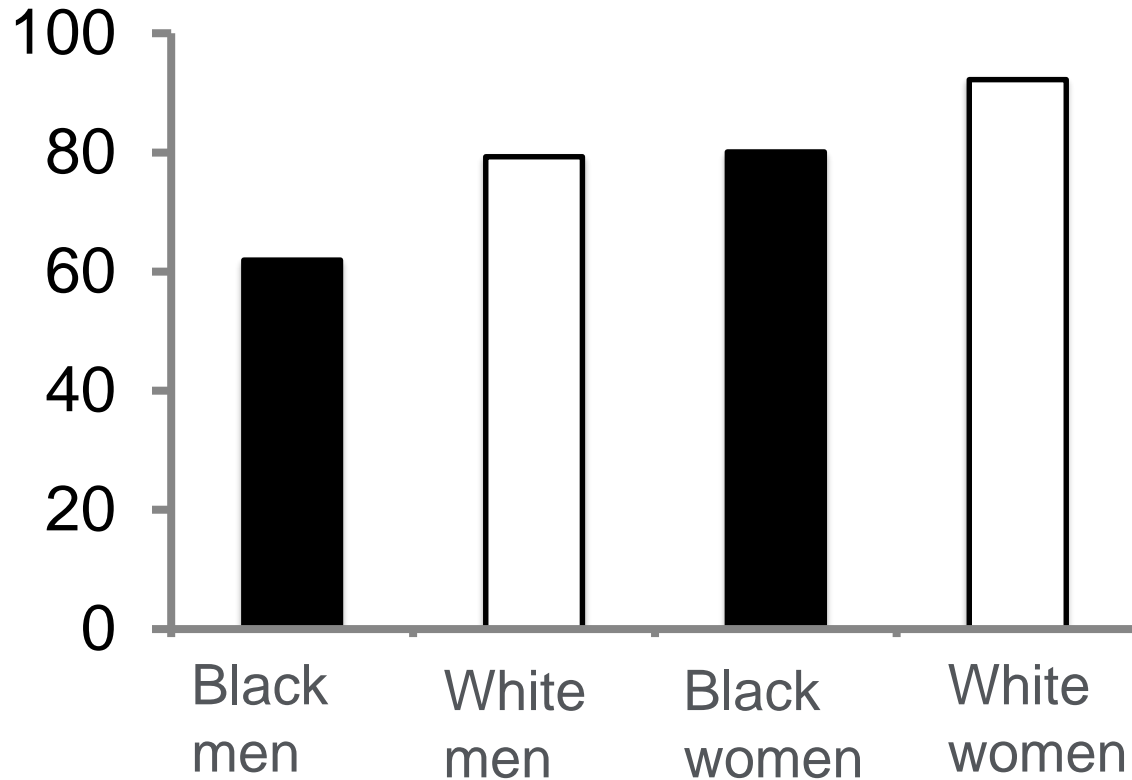


Medication &
Lifestyle
Non-
Adherence



Lifestyle & Medication

Black men are less likely to have a primary care provider



Arch Intern Med. 2008;168(12):1285-1293

According to Him: Barriers to Healthcare among African-American Men

Joseph E. Ravenell, MD, MS; Eric E. Whitaker, MD, MPH; Waldo E. Johnson Jr., PhD

Intrinsic Barriers

Lack of Awareness	A, C, H, HIV, MSM, MS, SA, TS,	"Diseases related to our nationality, to our race ... hypertension and prostate problems ... colon cancer. What is the prevention for that? What are the signs? What are the early symptoms of it?"
Fear	A, MSM, TS	"I never went down to get my AIDS test. I'm scared ... I don't think I could deal with that mentally if they told me "well yes, you have it." My life would end as I know it, right then and there."
Fatalism	A, MSM, TS	"People come up to us talking about that they are 'tired of hearing and talking about it because you gonna die from something anyway, so what difference does it make?'"
Healthcare as Needed	A, C, H, HIV, MSM, MS, SA, TS	"The only time I really go to the doctor is when something is really hurting. When I'm injured or something or have a problem, but otherwise, I don't even know my doctor's name, seriously."
Medical Mistrust	A, MSM, MS	"When I go to the doctor ... I always ask to let me see them take the needles out of the box. 'Cause I don't like them going to the back, like they pulling something out of the garbage, poking me with something that they have already poked somebody else."

fear

mistrust

“I don’t need a doctor”

How can we reach Black Men?

The Barbershop: A Cultural Institution



Why Barbershops?

- “The Black man’s Country Club”
- Relaxed non-medical atmosphere
- Frequent follow up (q 1-4 weeks)
- Tradition of “Barber Surgeons”
- Barbers as key opinion leaders (“important others”; set social norms)



“shops are and always have been places where black men could feel free to discuss anything and everything – without the interference and censorship found in other public forums”
– NPR radio, Pittsburgh

Barbershops as Hypertension Detection, Referral, and Follow Up Centers for Black Men

Step 1. Barber measures blood pressure at each haircut visit



Regular Barber



Step 2. Barber refers hypertensive customers for medical care



Regular MD



Step 3. MD initiates and titrates therapy based on barbershop and office BP readings

Therapy



Step 4. Barber helps to monitor effectiveness of therapy and encourages medication adherence

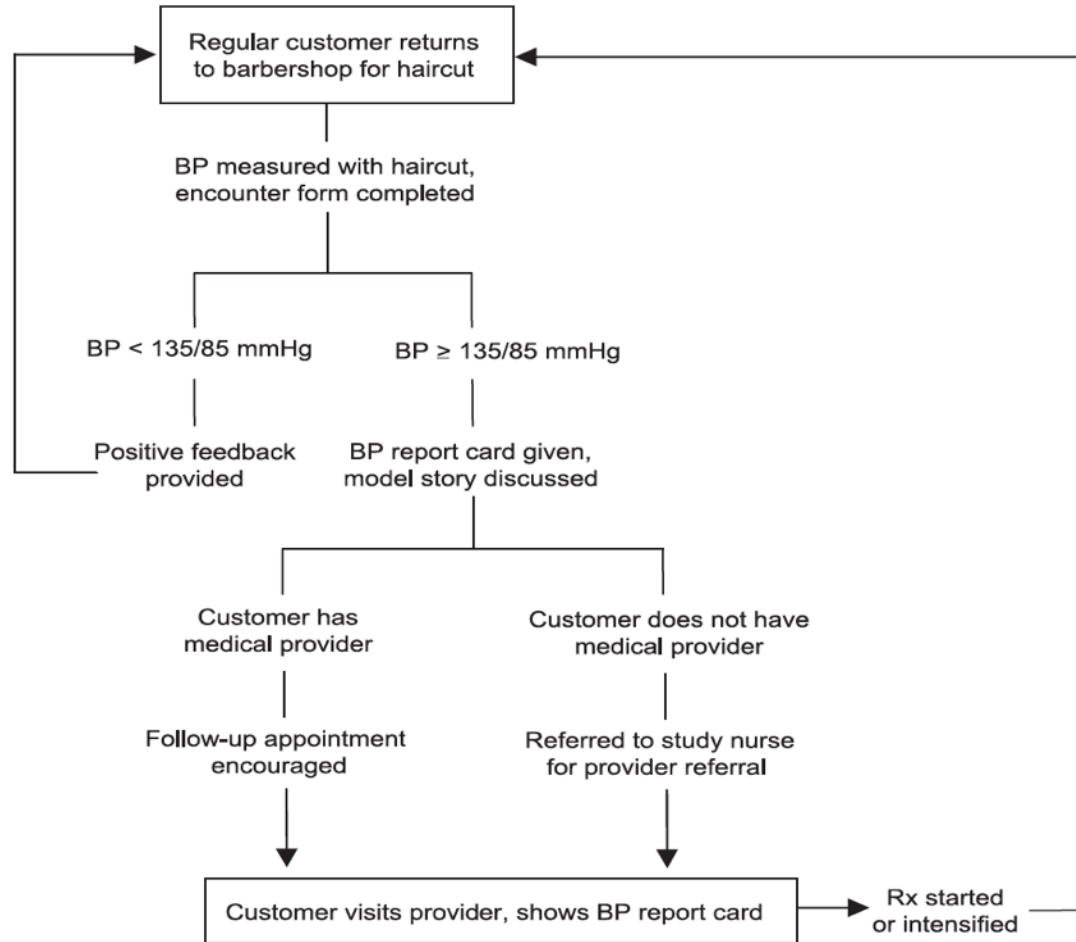


Attorney is Guilty of having High Blood Pressure

My name is Mr. B. I am a 35 year old Attorney. I came in to get my haircut and George took my blood pressure. My pressure today was high, so George advised me to see a doctor, even though I felt fine. Now that I have evidence that my pressure is high, I'm going to make the time to find a doctor so I can have a good defense against high blood pressure, the silent killer!

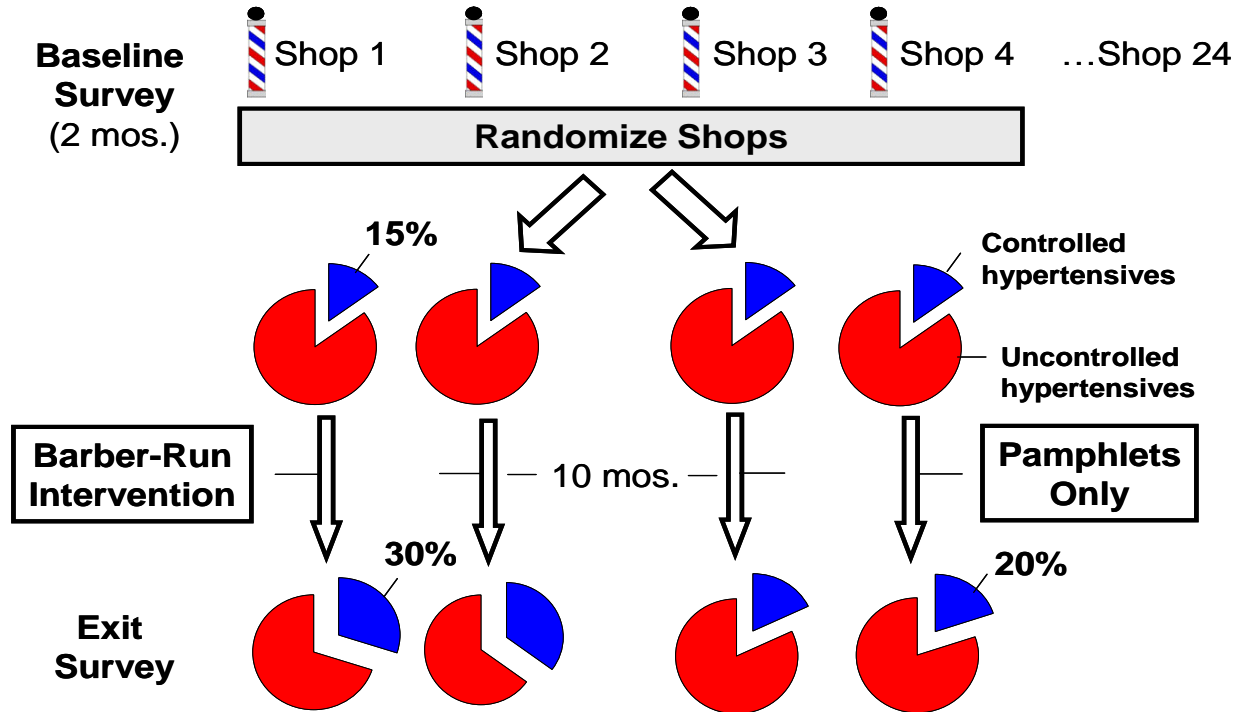


Barber-based Intervention



A Barber-Based Intervention for Hypertension in African American Men: Design of a Group Randomized Trial

Ronald G. Victor, MD^a, Joseph E. Ravenell, MD MS^a, Anne Freeman, MSPH^b, Deepa G. Bhat, ME^a, Joy S. Storm, BS^a, Moiz Shafiq, MD^a, Patricia Knowles^a, Peter J. Hannan, MStat^c, Robert Haley, MD^d, and David Leonard, PhD^{a,e}

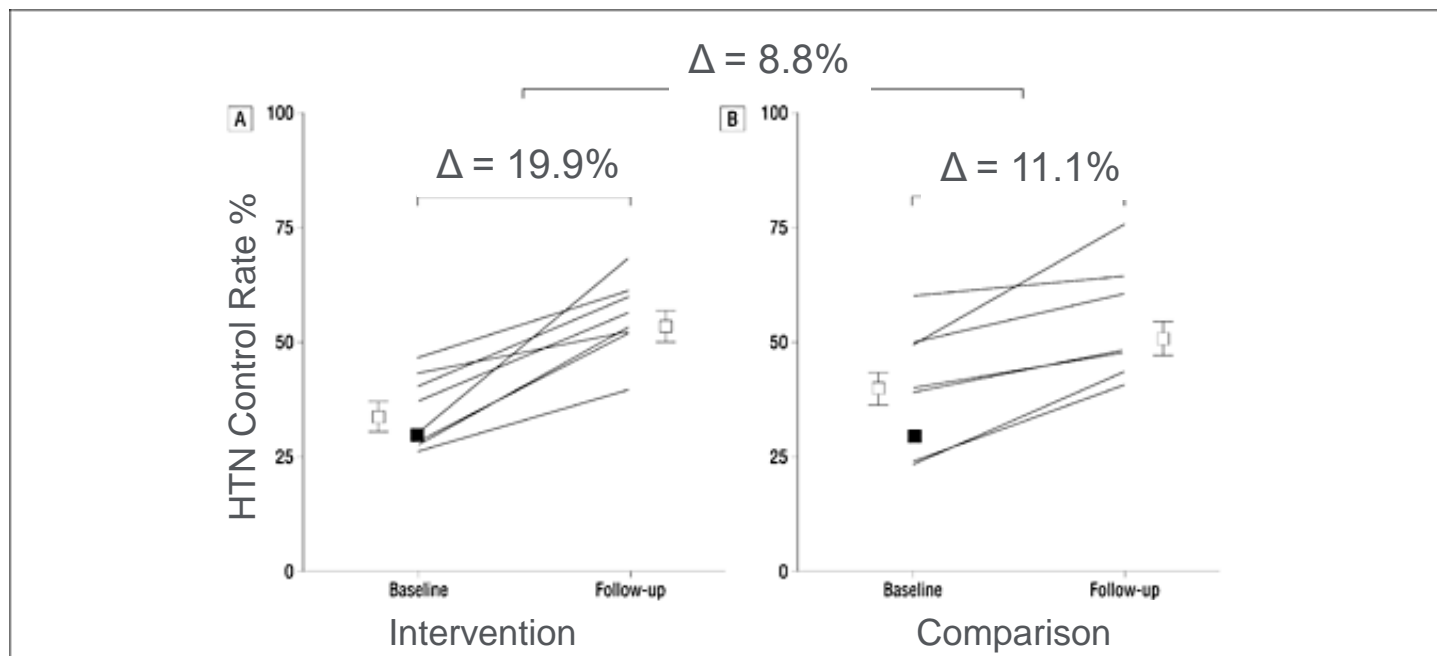


ONLINE FIRST

Effectiveness of a Barber-Based Intervention for Improving Hypertension Control in Black Men

The BARBER-1 Study: A Cluster Randomized Trial

Ronald G. Victor, MD; Joseph E. Ravenell, MD, MS; Anne Freeman, MSPH; David Leonard, PhD; Deepa G. Bhat, ME;



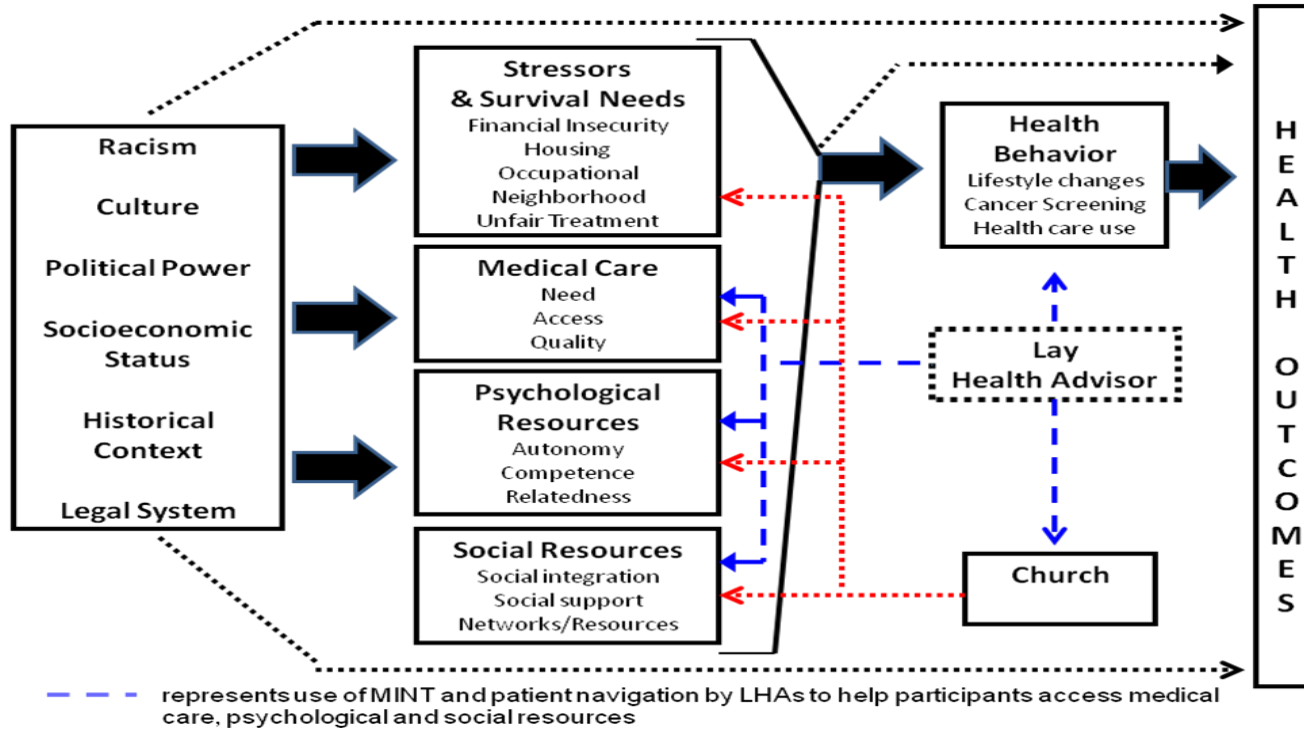
NYC Community-based Health Promotion: *The Barbershop Quartet Program*

- Community Outreach Program founded by Marian Scott (Co-Investigator)
- Fully-equipped Mobile Health Van staffed by top rate Medical Team
- “Quartet” of Screenings:
 - BP Measurement to Screen for Hypertension
 - Blood Glucose to Screen for Diabetes
 - PSA and DRE to Screen for Prostate Cancer
 - Referral for Screening Colonoscopy
- Assessments AND Counseling performed by NURSES AND PHYSICIANS

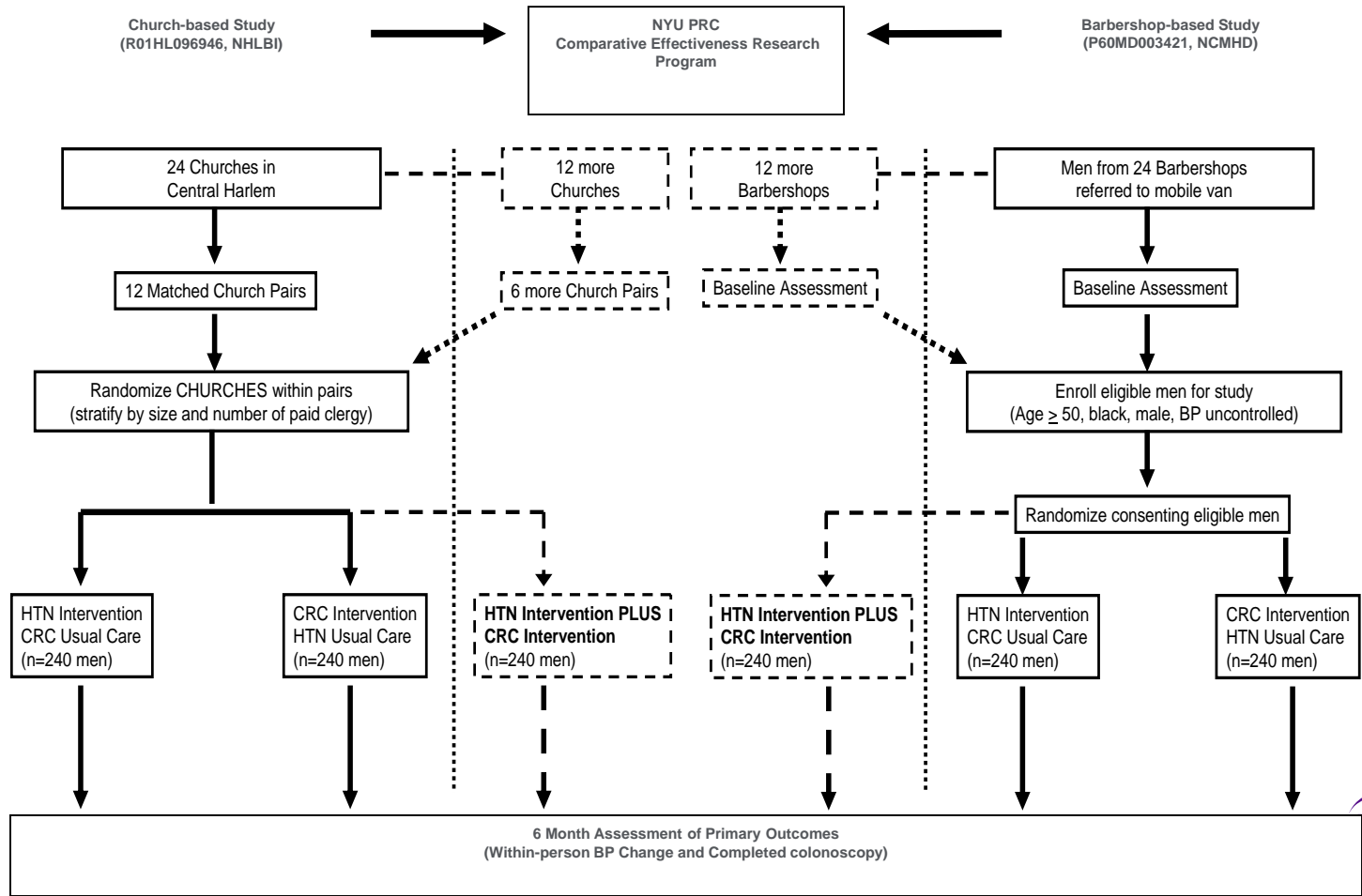




Social Determinants of Health Framework



NYU Men's Health Initiative Research Program



The NYU Men's Health Initiative

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Men's Health Initiative

2 PROJECTS. 1 GOAL.



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BARBERSHOP

[Know more about the study](#)

ARE YOU A...

BARBERSHOP

Looking for more information about how to get involved with the study

CHURCH OR MOSQUE REP.

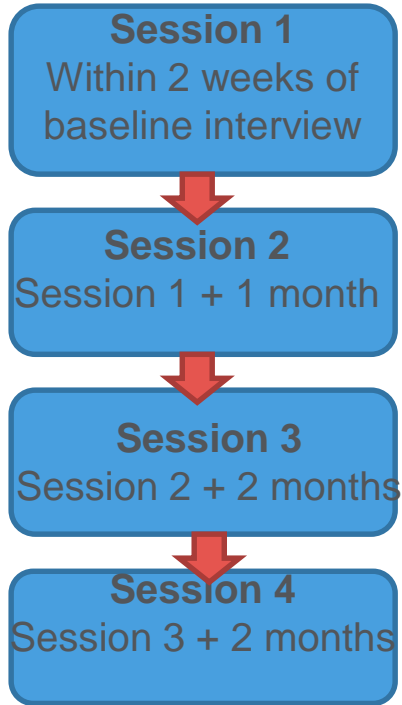
Learn how to get your community involved with the study.

BLACK MAN AGED 50+

Find out where to go to participate in the study.



MOTIVATIONAL INTERVIEWING INTERVENTION



- Session 1:
 - Review DASH eating plan booklets
 - Use MINT techniques to help men set goals
- Sessions 2-4:
 - Elicit barriers
 - Summarize pros and cons
 - Provide a menu of options for overcoming barriers
 - Assess values and goals
 - Summarize discussion

PATIENT NAVIGATION INTERVENTION

Session 1
Within 2 weeks of
baseline interview



**Follow-up
Sessions**
As needed for
duration of study
period (mean 3)

Session 1:

- Education on CRC and need for screening
- Elicit barriers
- Assess readiness

Follow-up sessions:

- Revisit barriers
- Assist with scheduling
- Navigate to appropriate screening facility
- Check in prior to screening
- Check-in after screening to debrief

Map of Site Locations By Site Type

-  Barbershop
-  Church Site
-  Social Services Organization
-  Mosque
-  Food Pantry/ Soup Kitchen
-  Community Health Fair/Festival



Baseline Characteristics (N=731)

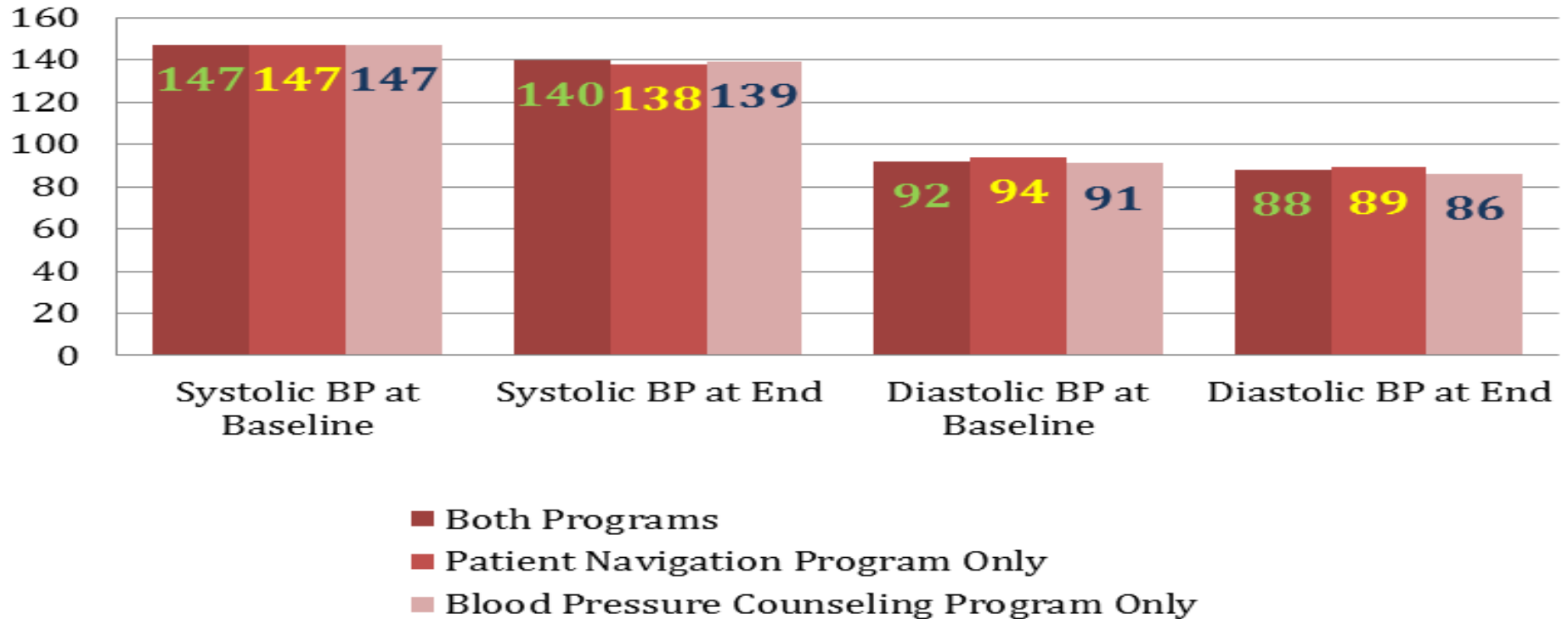
Demographics	Mister B
Age (Mean in years)	57.6
Highest Grade or Year of School	
Less than HS	29.4 %
HS Grad or GED	40.3 %
Some college or more	30.3 %
Born in the United States	72.5 %
Generally speaks English at home	90.9 %
Marital Status	
Married or living with a partner	25.2 %
Divorced	17.9 %
Widowed	6.7 %
Separated	10.4 %
Never Married	39.6 %

Baseline Characteristics

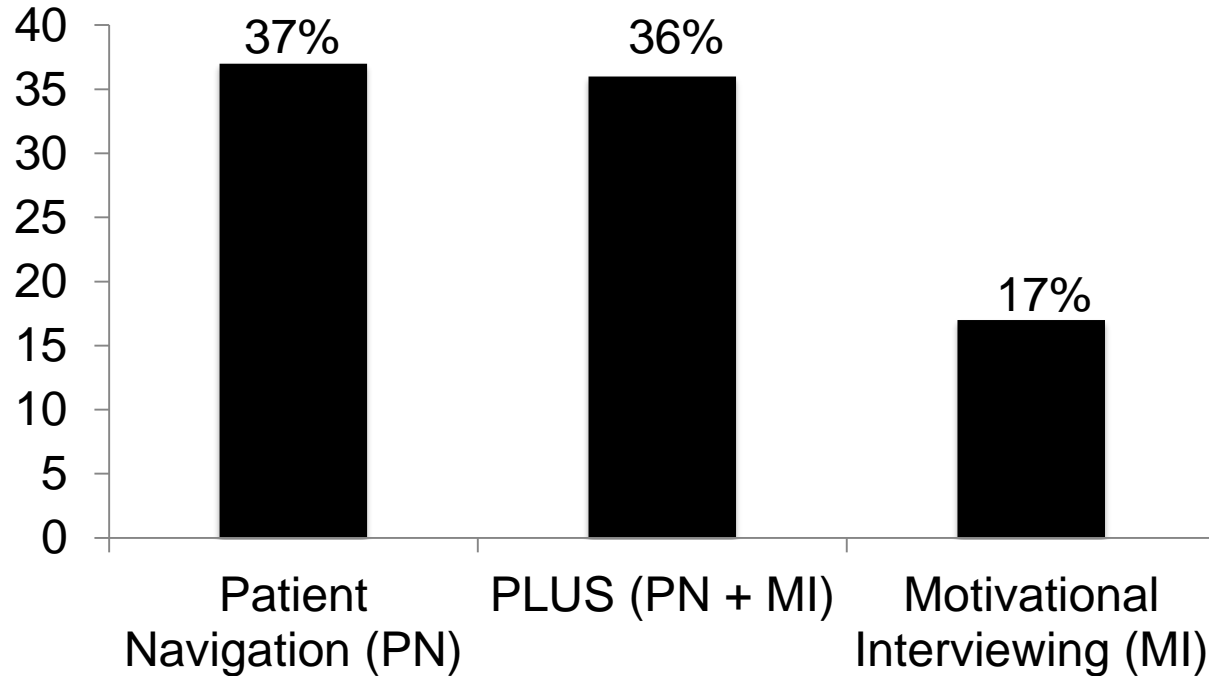
Demographics	Mister B
Employment	
Employed for wages	31.2 %
Unemployed	45.2 %
Retired	12.1 %
Unable to work	11.5 %
Annual household income (sd)	\$16,726 (18,007)
Currently uses tobacco products	54.6 %
No insurance	22.8 %
Regular Place of Care	72.3 %
Has Personal Doctor	59.6 %

Blood Pressure at 6-months

Average Blood Pressure Measurements by Program Received



Completed CRC Screening at 6-Months



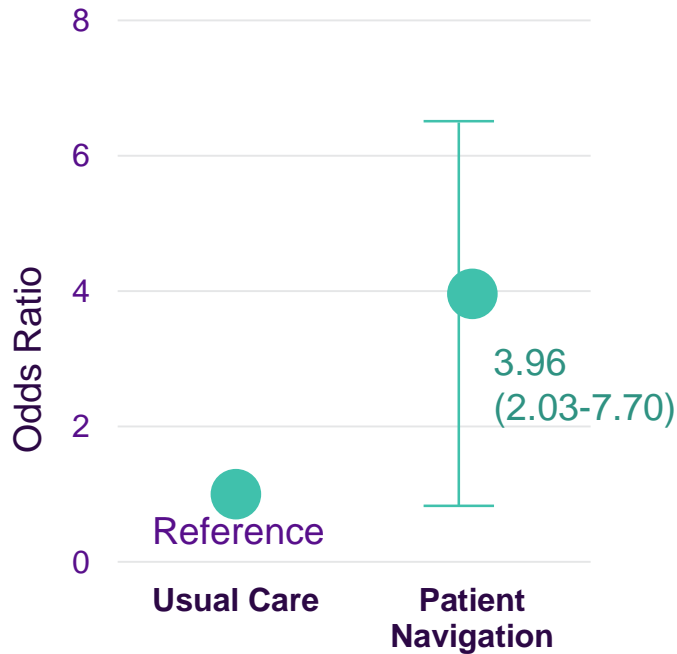
**Difference remains significant after adjusting for education, health literacy, insurance status, and having a personal doctor

Results Summary

- There was **no difference in blood pressure** by intervention group
- All intervention groups had lower average Systolic and Diastolic BP at 6-month follow up
- Participants who received the Patient Navigation Intervention were **more than twice as likely** to get screened as those who didn't get the intervention

Translation of Barbershop Models to Colorectal Cancer

Improved CRC screening in Black men by patient navigation intervention

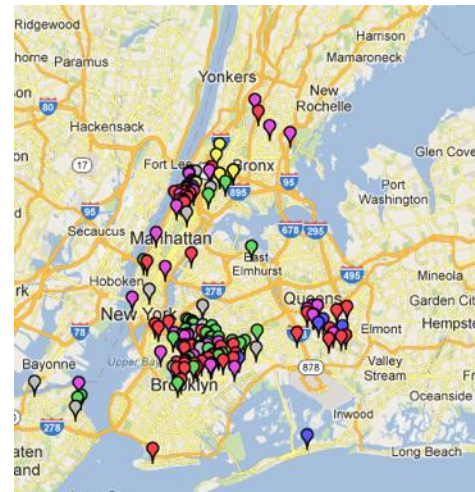


Funded: NIH/NIMHD 5P60MD003421-05; CDC U48DP002671-03



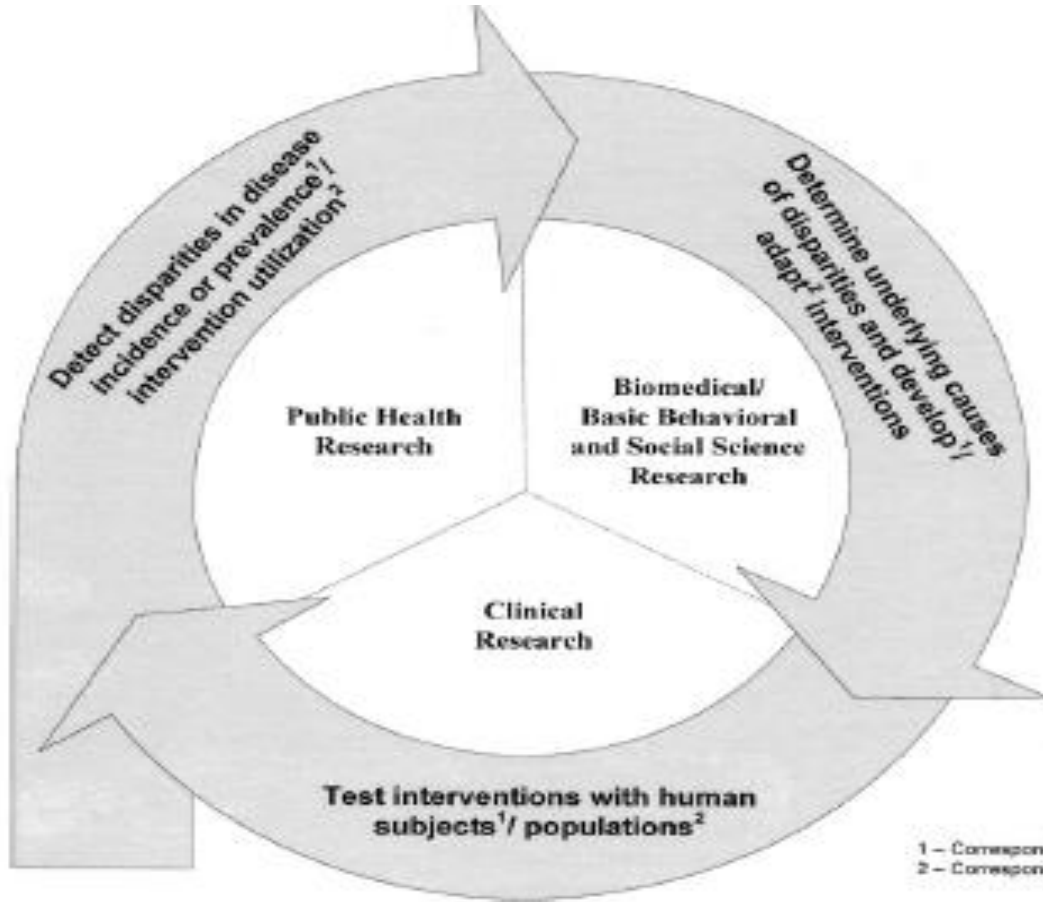
Community-Based, Preclinical Patient Navigation for Colorectal Cancer Screening Among Older Black Men Recruited From Barbershops: The MISTER B Trial, *AJPH, September 2017*

Helen Cole DrPH, Hayley S. Thompson PhD, Marilyn White MD, Ruth Browne PhD, Chau Trinh-Shevrin DrPH, Scott Braithwaite MD, MS, Kevin Fiscella MD, MPH, Carla Boutin-Foster MD, MS, and Joseph Ravenell MD, MS



- Barbershop
- Church Site
- Social Services Org
- Mosque
- Food Pantry/Soup Kitchen
- Community Health Fair/Festival

Implications for Health Equity Research in PD



Fleming, ES et al.
Ethnicity & Disease
2008 Spring

Considerations for the future

- 1. What are the most important and most urgent gaps? (disease awareness? treatment? Patient-level factors? Provider-level?)**
- 2. How can we engage other key stakeholders (patients and communities) to develop and sustain effective interventions?**

Acknowledgements

- The barbershops, churches and community leaders for their hospitality and dedication to our projects, as well as the study participants for their time and efforts.
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- Special thanks to the research staff and NYU students who have collected data for these studies.
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Muhammad Ali's Advocacy for Parkinson's Disease Endures with Boxing Legacy

JUNE 10, 2016 BY KATIE MCCALLUM IN NEWS



Rev. Jesse Jackson Announces Battle With Parkinson's Diagnosis

November 25, 2017 The Florida-Georgia Star National 0



Reverend Jesse Jackson

THANK YOU