

# **Intervention IP-089: A community health worker intervention to improve blood pressure among Filipino Americans with hypertension: A randomized controlled trial**

## **Summary**

This intervention was designed to test the effectiveness of a Community Health Worker (CHW) intervention on hypertension-related outcomes among Filipino Americans with hypertension living in New York City from 2011-2013. A randomized controlled trial was conducted of 240 Filipino Americans with uncontrolled hypertension using CHWs to provide educational workshops and visits over a 4 month period. Findings showed that there was increased blood pressure (BP) control and improved related factors at 8-month follow-up among the participants.

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## **Overview**

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### **Purpose of Intervention:**

To improve hypertension-related outcomes among Filipino Americans living in New York City

### **Intervention Type:**

Research-Tested — *Interventions with strong methodological rigor that have demonstrated short-term or long-term positive effects on one or more targeted health outcomes to improve minority health and/or health disparities through quantitative measures; Studies have a control or comparison group and are published in a peer-review journal; No pilot, demonstration or feasibility studies.*

## **Intervention Details**

### **Intervention was Primarily Driven, Led, or Managed by:**

Both Community and Academic/Clinical Researchers

### **Citations:**

- Ursua RA, Aguilar DE, Wyatt LC, Trinh-Shevrin C, Gamboa L, Valdellon P, Perrella EG, Dimaporo MZ, Nur PQ, Tandon SD, Islam NS. A community health worker intervention to improve blood pressure among Filipino Americans with hypertension: A randomized controlled trial. Preventive medicine reports. 2018 May 9;11:42-48. doi: 10.1016/j.pmedr.2018.05.002. eCollection 2018 Sep. Relevance: Main Intervention

- Ursua RA, Aguilar DE, Wyatt LC, Katigbak C, Islam NS, Tandon SD, Nur PR, Van Devanter N, Rey MJ, Trinh-Shevrin C. A community health worker intervention to improve management of hypertension among Filipino Americans in New York and New Jersey: a pilot study. *Ethnicity & disease*. 2014 Winter;24(1):67-76.  
Relevance: Evaluations and Assessments
- Katigbak C, Foley M, Robert L, Hutchinson MK. Experiences and Lessons Learned in Using Community-Based Participatory Research to Recruit Asian American Immigrant Research Participants. *Journal of nursing scholarship : an official publication of Sigma Theta Tau International Honor Society of Nursing*. 2016 Mar;48(2):210-8. Epub 2016 Feb 2.  
Relevance: Evaluations and Assessments

### **Adaptation of Another Research-based Intervention:**

Yes

### **Name of Original Intervention:**

National Heart Lung and Blood Institute (NHLBI) Healthy Heart, Healthy Family curriculum

### **URL to original Intervention:**

<https://www.nhlbi.nih.gov/resources/healthy-heart-healthy-family-community-health-workers-manual-filipino-community>

### **Citations:**

- U.S. Department of Health and Human Services, National Institutes of Health. Healthy Heart, Healthy Family: A Community Health Worker's Manual for the Filipino Community. September 2008.

### **Intervention Primary Outcomes were comparable to the original:**

Yes

## **Contact Information**

### **Primary Contact Affiliation:**

NYU Grossman School of Medicine

### **Intervention URL:**

<https://classic.clinicaltrials.gov/ct2/show/NCT03100812>

## **Results**

### **Intentions**

**Improve minority health or the health of other populations with health disparities (e.g. rural populations, populations with low SES)**

### **Intervention Primary Outcome:**

Blood pressure (BP) control

**Intervention Secondary Outcome:**

Decreased systolic blood pressure (SBP), decreased mean diastolic blood pressure (DBP), increased appointment keeping compliance

**Key Findings:**

The odds of BP control from baseline to 8-months for the treatment group was 3.2 times the odds of the control group in adjusted analysis (95% CI, 1.9-5.4). A greater improvement in mean SBP was seen for the treatment group compared to the control group in adjusted analysis (difference in slopes was -6.2 [95% CI, -8.4, -4.0]). A greater improvement in mean DBP was seen for the treatment group compared to the control group in adjusted analysis (difference in slopes was -2.8 [95% CI, -4.3, -1.4]). The intervention group saw a significant change in appointment keeping while there was no change for the control group. The intervention effect was not significant.

**Statistical Method Used:**

To assess changes across groups for each continuous outcome (SBP, DBP, appointment keeping), we ran generalized estimating equations (GEE) models for repeated measures over time, adjusting for study arm, time-point, the intervention effect (study arm x time-point), as well as socio-demographics and behaviors; the intervention effects were reported. For BP control, we ran GEE models using a binomial distribution, and odds ratios were produced.

**Was statistical method used to analyze data from original Intervention comparable to the original:**

Yes

## Evaluations and Assessments

**Were Any of the Following Assessments Conducted (Economic Evaluation, Needs Assessment, Process Evaluation)?:**

Yes

- **Process Evaluation:** Interviews were conducted with pilot study community health workers (CHW) and trainers, and pilot participants; a secondary qualitative analysis was conducted using an interview with one CHW and their participant care logs. Acceptability of the intervention was high in part due to shared culture, language, and life experiences. Feasibility was achieved through community and academic partners working together. Efficacy was shown through a sense of ownership and empowerment by participants.
- **Needs Assessment:** A community health needs assessment was administered to Filipino adults prior to the AsPIRE intervention and helped to inform the development of the intervention, with the focus on the high burden of cardiovascular disease in the Filipino community.

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## Demographic and Implementation Description

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**Diseases, Disorders, or Conditions:**

Hypertension

**Race/Ethnicity:**

Asian

**Populations with Health Disparities:**

Racial and Ethnic Minority Populations

**Age:**

Young Adults (18 - 39 years), Middle-Aged Adults (40 - 64 years), Older Adults (65+ years)

**Socio-demographics / Population Characteristics**

**Community Type:**

Urban / Inner City

**Other Populations with Health Disparities:**

Unspecified

**Geographic Location:**

New York

**Socio-Economic Status:**

Unspecified

**Minority Health and Health Disparities Research Framework**

		Levels of Influence			
		Individual	Interpersonal	Community	Societal
Determinant Types	Biological	✓	✓		
	Behavioral	✓	✓		
	Physical / Built Environment	✓	✓		
	Sociocultural Environment	✓	✓		
	Health Care System	✓	✓		

**Community Involvement**

The community's role in different areas of the Intervention (Choices are "No Role", "Participation", and "Leadership"):

**Design:**

Participation

**Dissemination:**

Participation

**Evaluation:**

Participation

**Implementation:**

Leadership

**Outreach:**

Leadership

**Planning :**

Leadership

**Recruitment:**

Leadership

**Sustainability:**

Leadership

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## Characteristics and Implementation

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**Intervention Focus Area:**

Behavior Change

**Disease Continuum:**

Tertiary Prevention

**Delivery Setting:**

Local Community (e.g. Barbershops, Beauty / Hair Salon, Laundromats, Food Markets, Community Centers),  
Houses of Worship

**Mode of Delivery:**

In-person

**Who delivered the Intervention?:**

Community Health Worker/Promoters

## Conceptual Framework

**Intervention Theory:**

Health Belief Model, Social Support / Social Network Theory

**Intervention Framework:**

CBPR Framework

**Implementation****Intervention Study Design:**

Individual Randomized Controlled Trial/Comparative (requires random assignment, a control/comparison group, and pre and post intervention outcome assessments)

**Targeted Intervention Sample Size:**

305

**Actual Intervention Sample Size:**

182

**Start Year:**

2011

**End Year:**

2013

**Intervention Exposures****Duration of Intervention/How Long it Lasted:**

4-6 months

**Frequency of Intervention Delivery:**

Monthly

**Number of Sessions/Meetings/Visits/Interactions:**

3-4 Sessions

**Average Length of Each Session/Meeting/Visit/Interaction:**

1-2 Hours

**Format of Delivery:**

Group (e.g. Community leaders), Individual

**Highest Reading Level of Intervention Materials Provided to Participants:**

Unspecified

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## Adaptations and Modifications

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### Were modifications made?

Intervention Elements	Modified
Content	Yes
Context	No
Implementation	Yes
Funding	No
Organization	No
Participants	No
Providers	No
Sociopolitical	No
Stages of Occurrence	Yes

### Modification Details

	<b>Explanation</b>
<b>Content</b>	
Shortening	The intervention was streamlined, by combining sessions, in order to be delivered in 4 sessions instead of the original 12 sessions
<b>Implementation</b>	
Delivery, Duration	The intervention was delivered in 4 sessions instead of the original 12 sessions, and the sessions were delivered monthly instead of weekly. This lasted 4 months instead of 3 months.
<b>Stages of Occurrence</b>	
Planning/Pre-implementation/Pilot	The intervention was modified in the planning phase and then pilot tested.

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## **Impact, Lessons, Components**

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### **Produced an impact or change beyond the primary or secondary outcome:**

Not Tested

### **Essential Aspects for Success:**

The strong leadership role of a trusted community partner, who employed the CHWs, was essential for the success of the intervention. The community partner was able to establish a storefront community center space staffed by CHWs, which helped to address health needs in the community.

### **Intervention Impact:**

Not available

## **Lessons Learned**

### **Key Lessons Learned and/or Things That Could be Changed or Done Differently:**

Socio-cultural characteristics of CHWs are key to building trust with participants.

## **Insights Gained During Implementation**

No insights available.

## **Intervention Components**

### **Intervention Has Multiple Components:**

Yes

**Assessed Each Unique Contribution:**

No

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## **Products, Materials, and Funding**

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### **Expertise, Partnerships, and Funding Sources**

	<b>Used for Implementation</b>	<b>Needed for Sustainability</b>
<b>Expertise</b>		
<b>Community mobilization, community organization/coalition building</b>	Yes	Yes
<b>Key informants, Tribal leaders, Community gatekeepers</b>	Yes	Yes
<b>Patient Navigation</b>	Yes	Yes
<b>Health Education / Health Literacy</b>	Yes	Yes
<b>Research/Data science</b>	Yes	Yes
<b>Partnerships</b>		
<b>Universities</b>	Yes	Yes
<b>Local leaders/families</b>	Yes	Yes
<b>Community groups (e.g. faith-based organizations, barbershops, beauty-salons, laundromats, food markets, community centers, cultural associations, tribal groups)</b>	Yes	Yes
<b>Funding Sources</b>		
<b>Public funding (e.g., federal, state or local government)</b>	Yes	Yes

### **Product/Material/Tools**

	<b>Tailored For Language</b>	<b>Language(s) if other than English</b>	<b>Material</b>
<b>Outreach/Recruitment Tools</b>			
Publicity Materials (e.g. Posters, Flyers, Press Releases)	No		Attachment available for request at the bottom of the page.
Informed Consent Form	No		Attachment available for request at the bottom of the page.
<b>Participant Educational Tools</b>			
Brochures/Factsheets/Pamphlets	No		Attachment available for request at the bottom of the page.
<b>Measurement Tools</b>			
Non-Standardized Instruments/Surveys/Questionnaires	No		Attachment available for request at the bottom of the page.
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## **Implementation Materials and Products**

	<b>Material</b>
<b>Implementation/Delivery Materials</b>	
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
Coordinator or Facilitator’s Guides	Attachment available for request at the bottom of the page.
Curricula	Attachment available for request at the bottom of the page.
Curricula	Attachment available for request at the bottom of the page.
Curricula	Attachment available for request at the bottom of the page.
Curricula	Attachment available for request at the bottom of the page.
Guidebooks/Workbooks/Participant Manual	Attachment available for request at the bottom of the page.
<b>Implementation/Output Materials</b>	
No Implementation/Output Materials provided.	

## **Articles Related to Submitted Intervention**

	Article
<b>Reports/Monographs</b>	
Overview of the study for the community	Attachment available for request at the bottom of the page.
<b>Additional Articles</b>	
Adaptations, Development of Kalusugan Coalition and results from a community needs assessment in the Filipino community	Attachment available for request at the bottom of the page.
Secondary results from screening data	Attachment available for request at the bottom of the page.
Secondary results from screening data	Attachment available for request at the bottom of the page.
Evaluation	Attachment available for request at the bottom of the page.
Methodology	Attachment available for request at the bottom of the page.
Evaluation	Attachment available for request at the bottom of the page.
Qualitative findings	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4386525/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4386525/</a>
Evaluation	Attachment available for request at the bottom of the page.

## Materials Available for Request

- AsPIRE Recruitment Health Fair Flyer.pdf
- AsPIRE Consent Brochure.pdf
- Project AsPIRE Brochure.pdf
- AsPIRE 8-Month Survey.pdf
- AsPIRE Baseline Survey.pdf
- AsPIRE 4-Month survey.pdf
- AsPIRE Session 2 Handouts.pdf
- AsPIRE Session 3 Handouts.pdf
- AsPIRE Session 4 Handouts.pdf
- AsPIRE CHW Manual for the Filipino Community.pdf
- AsPIRE Session 1.pdf

- AsPIRE Session 2.pdf
- AsPIRE Session 3.pdf
- AsPIRE Session 4.pdf
- AsPIRE Session 1 Handouts.pdf
- Project\_AsPIRE\_Executive Summary\_FINAL.pdf
- Aguilar 2010 Lessons learned and challenges in buliding a filipino health coalition.pdf
- Ursua 2014 Awareness, Treatment, and Control of HTN Among Filipino Immigrants.pdf
- Ursua 2013 Awareness treatment and control of hypertension among Filipino immigrants.pdf
- AsPIRE Pilot Intervention Paper.pdf
- Islam 2017 CHW Attribute and Pathways of Action.pdf
- AsPIRE Full Intervention Paper.pdf
- Wyatt 2022 CHW Physical Activity.pdf

Request Materials

Enter Email Address

Request