Cardiovascular Disease Prevention and Control: Interventions Engaging Community Health Workers

Summary Evidence Table – Studies with Least Suitable Study Design

Study designs include before-after studies without a comparison group

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Author(s): Adair et al. 2012 **Location:** Minnesota **Setting(s):** inner-city primary care clinic **Scale:** Study took place at an inner-city primary care clinic staffed by residents and their teachers and included 3 care guides. A total of 470 patients were referred for study enrollment of which 334 agreed to participate. **Design:** Before-After w/o comparison **Intervention duration:** 12 months **Quality of Execution:** Good (1 limitation) **Limitation(s):** Interpretation of Results - Authors made mention of the possibility of selection bias in enrolling patients and potential Hawthorne effect	**Inclusion:** Diagnosed with hypertension OR diabetes OR heart failure **Exclusion:** <18 yrs. of age OR pregnant **Reported Baseline Demographics [Intervention Participants]:** Age (median): 61.0 yrs. Sex: Male: 43.0% ; Female: 55.8% Race/ethnicity: White: 49.0% Black/AA: 43.0%; Other: 8.0% Education: < H.S.: 23.0%; H.S. grad: 33.0%; some college: 31.0%; college grad: 6.0%; post-grad: 7.0% Low income: NR Medicaid: 24.0% Medicare: 51.0% No health insurance: 7.0% Unemployed: NR **Reported Risk Factors [Intervention**	**CHW Activities:** Care guides provided one-on-one face-to-face or telephone counseling twice a month with clinic patients. Their main job was to assist both patents and clinicians on achieving treatment goals. Care guides provided coaching and problem solving to overcome treatment barriers including how to shop for less expensive drugs, cues for remembering to take medications, and how to access other community resources. Care guides provided formal quarterly reports to the primary care physicians updating them on patient progress. **CHW Core Roles Met:** Bridging/cultural mediation between community and healthcare system + providing culturally appropriate information and health education + ensuring that people get services they need + providing informal counseling and social support + building individual and community capacity **CHW Models of Care Met:** Member of care delivery team + screening and health education provider +	**Blood Pressure Outcomes** **Proportion with BP at goal (%)** **Baseline (in persons w/o diabetes):** Intervention (n=183): 54.0% **12 Months; BP < 140/90 mmHg:** Intervention (n=183): 71.0% **Absolute pct pt change = 17.0; p<0.001** **Proportion with BP at goal (%)** **Baseline (in persons w/ diabetes):** Intervention (n=146): 45.0% **12 Months; BP < 130/80 mmHg:** Intervention (n=146): 48.0% **Absolute pct pt change = 3.0; p=0.597** **Cholesterol Outcomes** **Proportion with LDL at goal (%)** **Baseline (in persons w/ diabetes):** Intervention (n=146): 58.0% **12 Months; TC < 100 mg/dL:** Intervention (n=146): 68.0% **Absolute pct pt change = 10.0; p=0.029** **Diabetes Outcomes** **Proportion with A1c at goal (%)** **Baseline:** Intervention (n=146): 44.0% **12 Months; A1c < 7.0%** Intervention (n=146): 45.0% **Change in mean difference = 1.0; p=1.0**

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Funding: Robina Foundation **Applicability:** For this study, mainly to Medicare recipients with high blood pressure and/or diabetes receiving supplemental care from care guides who assist in ensuring those participants achieve their prescribed treatment goals.	**Participants]:** High blood pressure: 88.9% Diabetes: 44.0% Heart failure: 13.6%	Outreach/enrollment/information agent **CHW Characteristics:** CHW matched to population by: Language + race/ethnicity (AA + Hispanic) Payment: paid $16.17/hour + received benefit package Educational background: > H.S.: 100% Years of experience: no prior experience Supervisor: registered nurse CHW performance evaluation: Care guides were audited by nurse supervisor Recruitment: NR Training: Care guides received a two-week comprehensive training course delivered by clinic staff that included training in motivational interviewing **Other provider(s):** physician + nurse **Other provider(s) activities:** Care guides updated physician on patient progress. Physician provided patients with usual clinical care. Nurses supervised care guides and provided them with coaching and problem solving, reinforced basic standards of professional behavior, and audited their performance.	**Additional Outcomes (see separate table):** smoking **Summary**: In persons with high blood pressure only, a significant increase in the proportion of participants with BP at goal at 12 months was observed. In persons with diabetes, a significant increase in the proportion of participants with LDL at goal at 12 months was observed. Non-significant increases in the proportion of diabetes patients with BP and A1c at goal were observed. Furthermore, there was a significant increase in the proportion of participants reporting they no longer smoke.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		Community Partners Involved: N/A	
Author(s): Balcazar et al. 2009 **Location:** Texas + California + Arizona **Setting:** 4 community health centers **Scale:** 1) Centro San Vicente (CSV), El Paso, TX: 3 clinic sites throughout the region (>13,000 registered patients) 2) Gateway Community Health Centers, Inc (CGHS), Laredo TX: 2 clinics (approximately 15,000 residents/year). 3). North County Health Services (NCHS) in San Marcos, California: comprises of 9 stationary clinics and 1 mobile clinic (service area covers approximately 57,000 people many of whom are newly arrived immigrants) **Design:** Before-After w/o comparison **Intervention duration:** 12 months **Quality of Execution:** Fair (3 limitations)	**Inclusion:** not clearly specified, All family members were invited to participate; however, the mothers were frequently the participants **Exclusion:** NR **Reported Baseline Demographics [Intervention Participants]:** Age (mean): NR Sex: mostly female Race/ethnicity: Hispanic: 92.5% Education: NR Low income: 50% Health insurance: NR Unemployed: NR **Reported Risk Factors [Intervention Participants]:** CVD Risk factors not reported	**CHW Activities:** CHWs delivered Salud Para Su Corazon (Your Heart, Your Life) aimed to increase CVD knowledge and promote heart healthy practices at Clinic/healthcare facility via group education delivered several times per week, once per week, or every other week for a total intervention period of 2 to 3 months. Sessions lasted approximately 2 hours. **CHW Core Roles Met:** Bridging/cultural mediation between community and healthcare system + providing culturally appropriate information and health education + ensuring people get services they need + building individual and community capacity **CHW Models of Care Met:** Member of care delivery team + screening and health education provider + organizer **CHW Characteristics:** CHW matched to population by: Language +race/ethnicity (Latino/Hispanic) Payment: CHWs were paid at 3 sites, an volunteered at 1 site Educational background: NR Years of experience: Unclear; all were existing promotores	**Blood Pressure Outcomes** **Change in SBP (mmHg)** **Baseline: mean (SD)** Intervention (n=85): 129.0 (17.0) **12 Months:** Intervention (n=85): 127.0 (16.0) **Change in mean difference = -2.0; p=0.25** **Change in DBP (mmHg)** **Baseline:** Intervention (n=85): 77.0 (10.0) **12 Months:** Intervention (n=85): 82.0 (17.0) **Change in mean difference = 5.0; p=0.54** **Cholesterol Outcomes** **Change in LDL (mg/dL)** **Baseline: Mean (SD)** Intervention (n=85): 108.0 (34.0) **12 Months:** Intervention (n=85): 86.0 (27.0) **Change in mean difference = -22.0; p<0.001** **Change in HDL (mg/dL)** **Baseline: Mean (SD)** Intervention (n=85): 48.0 (12.0) **12 Months:** Intervention (n=85): 49.0 (12.0) **Change in mean difference =1.0; p=0.84** **Change in Triglyceride (mg/dL)** **Baseline: Mean (SD)** Intervention (n=85): 178.0 (77.0) **12 Months:** Intervention (n=85): 155.0 (70.0) **Change in mean difference =-23.0; p=0.02**

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Limitation(s): Description - demographics not reported on study sample Sampling - recruitment methods for the population and inclusion/exclusion criteria not reported Interpretation of results - intervention components may have differed slightly by intervention site and results are not stratified by study site + F/u <80% **Funding:** NIH, National Heart, Lung, and Blood Institute + HRSA **Applicability:** For this study, mainly to Hispanic/Latino women receiving the Salud Para Su Corazon curriculum via group sessions at the healthcare facility		Supervisor: NR CHW performance evaluation: NR Recruitment: NR Training: Didactic lecture + 6 to 18 hours of training to complete the Your Heart, Your Life curriculum lessons + Lead promotores who had been previously trained in the Your Heart, Your Life manual delivered the training activities; hypertension + hyperlipidemia + diabetes **Other provider(s):** Physician +Nurse +certified diabetes educator + medical support staff +administrators + board of directors **Other provider(s) activities**: medical staff developed a treatment plan that included laboratory assessment, medication, care plan and referral to promotores for education. Follow-up was provided by both medical staff and promotores as needed **Community Partners Involved:** Community health centers conducted media and community outreach events to enhance the work of the promotores at the community level and developed partnerships with various local health clinics, health departments, schools, and community-based organizations to support program activities	**Diabetes Outcomes** **Change in A1c (%)** **Baseline: Mean (SD)** Intervention (n=85): 8.0 (2.0) **12 Months:** Intervention (n=85): 8.0 (7.0) **Change in mean difference = 0; p=0.96** **Change in BMI (kg/m^2)** **Baseline: Mean (SD)** Intervention (n=85): 33.0 (8.0) **12 Months:** Intervention (n=85): 32.0 (7.0) **Change in mean difference = -1.0; p=0.5** **Change in BMI/Weight Outcomes** **Change in weight (lbs)** **Baseline: Mean (SD)** Intervention (n=85): 182.0 (40.0) **12 Months:** Intervention (n=85): 179.0 (40.0) **Change in mean difference = -3.0; p=0.62** **Additional Outcomes:** N/A **Summary**: There were significant reductions in LDL and triglycerides. There were non-significant reductions in SBP, BMI and Weight. There was a favorable increase in HDL. Unfavorable results were seen for DBP and no change in A1c.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Author(s): Balcazar et al. 2005 **Location:** Chicago + Texas + California + New Mexico + Rhode Island **Setting:** home +community centers, church + school + non-academically affiliated primary care **Scale:** Study was delivered in collaboration with seven community-based organizations (CBOs) across the United States **Design:** Before-After w/o comparison **Intervention duration:** 6 months **Quality of Execution:** Fair (2 limitations) **Limitation(s):** Sampling - inclusion/exclusion criteria not reported Interpretation of Results - baseline demographics not reported **Funding:** Metropolitan Life Foundation **Applicability:** For this study, mainly to Hispanic	**Inclusion:** not clearly specified, all family members were invited to participate. **Exclusion:** NR **Reported Baseline Demographics [Intervention Participants]:** Age (mean): 30-51 yrs Sex: Male: 9.0%; Female: 91.0% Race/ethnicity: Hispanic: 100% Education: NR Low income: NR Health insurance: NR Unemployed: NR **Reported Risk Factors [Intervention Participants]:** High BP: 16.0% High cholesterol: 16.0% Diabetes: 14.0% Current Smoker(cigarettes): 9.0%	**CHW Activities:** Promotores delivered Salud Para Su Corazon (Your Heart, Your Life) curriculum aimed to increase CVD knowledge and promote heart healthy practices taught in community centers, churches, schools, clinic/healthcare facility + home visits. Additionally, promotores delivered telephone follow-up and group sessions at community centers meeting several times a week, once a week, for every other week for 2 hour sessions. CHW also provided appointment referrals and transportation to referral clinic appointments for CVD screening **CHW Core Roles Met:** Bridging/cultural mediation between community and healthcare system + providing culturally appropriate information and health education + ensuring people get services they need + providing direct services + building individual and community capacity **CHW Models of Care Met:** Screening & health education provider + outreach/enrollment/information agent + community organizer **CHW Characteristics:** CHW matched to population by: Language (Spanish) +race/ethnicity (Latino/Hispanic) + Location	**No health outcomes were reported** **Additional Outcomes (see separate table):** Physical Activity, Nutrition, Weight control practices **Summary**: There was an increase in the proportion of participants with weight under control. There was also a significant increase in heart healthy behaviors such as reduced salt and sodium consumption and reduced fat and cholesterol intake.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
women in the 30-51 yr. age range, receiving education based on the Salud Para Su Corazon curriculum at various community-based locations.		Payment: NR Educational background: NR Years of experience: 78% of promotores previously worked as lay health educators with experience ranging from 6 months to 20 years Supervisor: NR CHW performance evaluation: NR Recruitment: promotores already employed with respective community-based organizations Training: Didactic lecture with a focus on hypertension, hyperlipidemia, diabetes + A series of well-defined and structured promotora training activities was conducted and supervised by the SPSC-NCLR team for all seven sites. The activities involved the development of participatory processes and capacity building to support the adequate delivery of the interventions **Other provider(s):** NR **Other provider(s) activities**: NR **Community Partners Involved:** Community based participatory research approach used; established partnerships with a variety of local organizations and programs, including clinics and health care providers, churches, schools, radio stations, health	

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		professional associations, restaurants, and pharmaceutical companies	
Author(s): Bloom et al. 1987 **Location:** California **Setting(s):** participant's home + outpatient clinic (not specified) **Scale:** Study included the use of 2 CHWs and was conducted within the participant's home and outpatient medical clinic. At total of 387 people with hypertension were invited to participate in the study of which 271 agreed. **Design:** Before-After w/o comparison **Intervention duration:** 24 months **Quality of Execution:** Fair (3 limitations) **Limitation(s):** Sampling - inclusion and exclusion criteria not specifically stated Data Analysis - analytic methods not reported Interpretation of Results - selection bias as some	**Inclusion:** diagnosed with hypertension **Exclusion:** NR **Reported Baseline Demographics [Intervention Participants]:** Age (mean): NR Sex: Male: 42.3%; Female: 55.8% Race/ethnicity: White: 33.0%; Black/AA: 67.0% Education: NR Low income: 100% Health insurance: NR Unemployed: NR **Reported Risk Factors [Intervention Participants]:** High blood pressure: 100%	**CHW Activities:** CHWs counseled participants either at the participant's home or in the nurse practitioner's office monthly. CHWs helped with medication adherence by removing barriers to compliance, took BP measurements, clarified misconceptions regarding use of folk remedies and assisted clients in using low-sodium diets. CHWs also provided assistance in arranging for transportation to medical appointments and making referrals to social agencies. **CHW Core Roles Met:** Bridging/cultural mediation between community and health care system + providing culturally appropriate information and health education + ensuring that people get services they need + providing informal counseling and social support + providing direct services and meeting basic needs + building individual and community capacity **CHW Models of Care Met:** Member of care delivery team + screening and health education provider + outreach/enrollment/information agent **CHW Characteristics:**	**Blood Pressure Outcomes** **Proportion with BP at goal** When patients were referred to the MD for 1 year, BP control increased by 5.4 pct pts. All participants were then assigned to either a nurse practitioner (NP) counseling component or a CHW counseling component. After 6 months, this cohort saw an additional increase in BP control by 8.2 pct pts. At this time, those patients who were still considered to be uncontrolled were assigned to the other counseling component. Six months later, BP control increased by an additional 6.3 pct pts, for an overall increase of 19.9 pct pts by then end of the 2-year program. **Change in SBP (mmHg)** There was no change in average SBP during the 1 year participants were referred to their MD, but there was a reduction in average SBP during the time patients received either NP counseling or CHW counseling for a mean difference of 7.73 mmHg after one year ($p<0.001$); thus the change in magnitude of SBP was greater during the counseling approach than the medical approach. **Change in DBP (mmHg)** The average DBP decreased significantly after one year of being referred to the MD (mean reduction of 1.80 mmHg; $p=0.02$) as well as during the counseling component (CHW or NP) with a mean reduction of 2.84 mmHg; $p=0.001$. **Additional Outcomes:** N/A **Summary:** The proportion of participants with BP control increased after 1 year of physician care. BP control further increased when participants were assigned to either nurse practitioner or CHW

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
participants were randomly selected through a community survey while others chose to participate via advertisement during health fairs. **Funding:** NIH, National Heart, Lung, and Blood Institute **Applicability:** For this study, mainly to low-income persons with high blood pressure receiving care from a physician for 1 year and then receiving hypertension counseling from either a nurse practitioner or community health worker for another year.		CHW matched to population by: race/ethnicity + SES Payment: NR Educational background: H.S. Grad: 100% Years of experience: CHWs had prior experience, but number of years not reported Supervisor: physician CHW performance evaluation: NR Recruitment: NR Training: unclear; study states that CHWs were trained by project staff to work with hypertensive patients. **Other provider(s):** nurse practitioner (NP) + physician **Other provider(s) activities:** participants were referred to a physician for 1 year then received services from either the CHW OR the NP. Mid-way through the study period, if the participant's BP was still not controlled; they were reassigned to the other provider. The NP provided information and made recommendations to the physician for changes in medication. The NP also helped participants follow a low-sodium diet **Community Partners Involved:** N/A	counseling. Those assigned to the CHW component were equally likely to have their BP under control as those in the NP condition. Significant reductions in SBP were observed after participants received counseling either from the NP or CHW. The medical and counseling approaches were equally effective in reducing DBP.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Author(s): Fedder et al. 2003 **Location:** Maryland **Setting(s):** participant's home + University of Maryland Medical System **Scale:** Thirty-eight CHWs were actively involved in providing services to patients during the study period. Two hundred thirty-eight participants identified through hospital discharge rolls were eligible for this study. Of those, 117 participants had five or more CHW contacts and were included in analysis. **Design:** Before-After w/o comparison **Intervention duration:** 12 months **Quality of Execution:** Good (1 limitation) **Limitation(s):** Interpretation of results – self-selection bias, analysis conducted on participants who responded to an offer for free care. **Funding:** Maryland Health Services Cost Review Commission + UMAB	**Inclusion:** 18 yrs. of age or older + diagnosis of diabetes OR hypertension + enrolled in Medicaid program + African American **Exclusion:** unable to make own decisions + life threatening illness (e.g., end-stage condition) + could not be matched to Medicaid claims data b/c of missing or incorrect numbers **Reported Baseline Demographics [Intervention Participants]:** Age (mean): 57.4 yrs. Sex: Male: 22.0%; Female: 78.0% Race/ethnicity: Black/AA: 100% Education: NR Low income: 100% Medicaid recipient: 100% Unemployed: NR **Reported Risk Factors [Intervention Participants]:** High BP: 91.5% Diabetes: 72.6%	**CHW Activities:** CHWs were assigned to no more than 10 patients and contacted participants weekly alternating between telephone contacts and face-to-face sessions at patients home. CHWs linked patients with appropriate primary care and specialty physicians, monitored self-care behaviors for signs of complications, and assisted participants in sustaining Medicaid eligibility if appropriate, and providing social support to patients, their caregivers, and families **CHW Core Roles Met:** bridging/cultural mediation between community and healthcare system + ensuring people get services they need + providing informal counseling and support + providing direct services and meeting basic needs + building individual and community capacity **CHW Models of Care Met:** Navigator + screening and health education provider + outreach/enrollment/information agent **CHW Characteristics:** CHW matched to population by: race/ethnicity + Location + SES Payment: CHWs were volunteers and received following incentives: bus pass + $45 to $75 depending on patient caseload	**Morbidity Outcomes** **Change in ER visits (all-cause)** **Baseline: Mean (SD)** Intervention (n=117):1.49 (2.2) **12 Months** Intervention (n=117): 0.9 (1.8) **Change in mean difference = -0.56; p<0.05** **Change in ER admissions** **Baseline: Mean (SD)** Intervention (n=117): 0.64 (1.4) **12 Months** Intervention (n=117): 0.3 (1.3) **Change in mean difference = -0.32; p=0.02** **Change in hospital admissions** **Baseline: Mean (SD)** Intervention (n=117): 0.95 (1.5) **12 Months** Intervention (n=117): 0.7 (1.4) **Change in mean difference = -0.29; p>0.05** **Additional Outcomes (see separate table):** Medicaid reimbursement Length of hospital stay **Summary:** Significant reductions in ER visits and ER admissions were observed. ER visits decreased by 38% and ER admissions by 53%. Further, hospital admissions decreased by 30% (NS).

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Foundation Community Pharmacy Fund **Applicability:** For this study, mainly to low-income female, African-American Medicaid recipients with diabetes or hypertension, receiving one-on-one sessions with CHWs either in-person or via telephone for management of these conditions.		Educational background: <H.S.: 100% Years of experience: NR Supervisor: unclear, biweekly supervision meetings were held (not specified) CHW performance evaluation: NR Recruitment: CHWs were recruited from target neighborhood (method NR) Training: Received 60 hours of training at University of Baltimore specific to HTN, diabetes, and case management + American Heart Association certification in BP measurement **Other provider(s):** N/A **Other provider(s) activities**: N/A **Community Partners Involved**: N/A	
Author(s): Fernandes et al. 2012 **Location:** Hawaii **Setting:** Federally Qualified Health Center- Kokua Kalihi Valley comprehensive family services (KKV) **Scale:** 11 CHWs delivered the group interventions at 1 FQHC. A total of 99	**Inclusion:** Filipino adults with CVD risk factors (such as hypertension, diabetes, high cholesterol, obesity, family history, smoking and sedentary lifestyle). **Exclusion:** NR **Reported Baseline Demographics [Intervention Participants]:** Age (mean): 68.5 yrs.	**CHW Activities:** CHWs taught Healthy Heart, Healthy Family curriculum to small groups of 8–12 people. Curriculum included eleven educational lessons aim to help participants build skills to make practical, lasting changes to help fight CVD and improve health. Sessions, each two hours in duration, were held weekly for 11 consecutive weeks **CHW Core Roles Met:** Bridging/cultural mediation	**Blood Pressure Outcomes** **Proportion with BP at goal (%)** **Baseline: mean (SD)** Intervention (n=92): 27.1% **12 Months:** Intervention (n=92): 28.7% **Absolute pct pt change = 1.6 ; 95% CI: -10.6, 13.8** **Change in SBP (mmHg)** **Baseline: mean (SD)** Intervention (n=92): 122.6 (NR)

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
participants were included in the study **Design:** Before-After w/o comparison **Intervention duration:** 12 months **Quality of Execution:** Fair (2 limitations) **Limitation(s):** Sampling - sampling frame not adequately described + inclusion/exclusion criteria not clearly described Interpretation of Results - self-reported data on some outcomes could be due to recall bias **Funding:** NIH, National Heart, Lung, and Blood Institute + HRSA Bureau of Primary Health Care **Applicability:** For this study, mainly to low-income Filipino women with high blood pressure and high cholesterol receiving the Healthy Heart, healthy Family curriculum via small group sessions	Sex: Male: 16.2%, Female: 83.8% Race/ethnicity: Native Hawaiin/Pacific Islander: 100% (Filipino) Education: <H.S.: 48.5%; H.S. grad: 24.3%; some college: 14.1%; college grad: 13.1% Low income: 70.7% Health insurance: NR Unemployed: NR **Reported Risk Factors [Intervention Participants]:** High BP: 80.8% High cholesterol: 81.8% Diabetes: 34.3% Current smoker: 5.0%	between community and the health care system + providing culturally appropriate information and health education + building individual and community capacity **CHW Models of Care Met:** Screening & health education provider + outreach/enrollment/information agent **CHW Characteristics:** CHW matched to population by: Language + Location Payment: Yes, CHWs were salaried employees occupying a wide range of positions, including outreach worker, case manager, medical assistant, and educator Educational background: >high school (% NR) Years of experience: CHWs were already employed with clinic Supervisor: NR CHW performance evaluation: NR Recruitment: existing paraprofessionals Training: trained on Healthy Heart, Healthy Family curriculum, 3 CHWs attended a training sponsored by NHLBI and HRSA to learn how to lead the program, and later trained 8 other CHWs **Other provider(s):** NR	**12 Months:** Intervention (n=92): 124.9 (NR) **Change in mean difference = 2.3; p=0.38** **Change in DBP (mmHg)** **Baseline: mean (SD)** Intervention (n=92): 74.2 (NR) **12 Months:** Intervention (n=92): 74.3 (NR) **Change in mean difference = 0.05; p=0.9** **Cholesterol Outcomes** **Change in total cholesterol (mg/dL)** **Baseline: Mean (SD)** Intervention (n=92): 186.3 (NR) **12 Months:** Intervention (n=92) : 170.9 (NR) **Change in mean difference = -15.4; p= 0.001** **Change in LDL (mg/dL)** **Baseline: Mean (SD)** Intervention (n=92): 114.4 (NR) **12 Months:** Intervention (n=92) : 103.0 (NR) **Change in mean difference = -11.4; p= 0.013** **Change in HDL (mg/dL)** **Baseline: Mean (SD)** Intervention (n=92): 44.3 (NR) **12 Months:** Intervention (n=92) : 41.0 (NR) **Change in mean difference = -3.3; p= 0.003** **Change in Triglyceride (mg/dL)** **Baseline: Mean (SD)** Intervention (n=92): 139.9 (NR) **12 Months:** Intervention (n=92) : 136.5 (NR) **Change in mean difference = -3.4; p= 0.61**

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		Other provider(s) activities: NR **Community Partners Involved:** N/A	**Diabetes Outcomes** **Change in A1c (%)** **Baseline: Mean (SD)** Intervention (n=92): 6.65 (NR) **12 Months:** Intervention (n=92) : 6.6 (NR) **Change in mean difference = -0.04; p= 0.317** **Change in FBG (mg/dL)** **Baseline: Mean (SD)** Intervention (n=92): 117.9 (NR) **12 Months:** Intervention (n=92) : 109.1 (NR) **Change in mean difference = -8.9; p= 0.03** **BMI/Weight Outcomes** **Change in BMI (kg/m^2)** **Baseline: Mean (SD)** Intervention (n=92): 28.6 (NR) **12 Months:** Intervention (n=92): 30.7 (NR) **Change in mean difference = 2.2; p=0.46** **Additional Outcomes (see separate table):** Nutrition, physical activity **Summary**: There was a favorable increase in the proportion with BP at goal, lipid outcomes and diabetes outcomes. There were significant reductions in total cholesterol and LDL. Unfavorable results were seen for SBP, DBP, HDL and BMI.
Author(s): Jones et al. 2008 **Location:** Airdrie, Alberta, Canada **Setting:** 6 community	**Inclusion:** Residents of Airdrie ≥65 yrs. old if both their family physician and pharmacy were located in the city. **Exclusion:** NR	**CHW Activities:** CHWs met with participants via one-on-one face-to-face sessions, 1-2 times per week. CHWs provided participants with educational materials (the current Canada's Food Guide, Canada's physical activity guide,	**Blood Pressure Outcomes** **Proportion with BP at goal (%)** **Baseline: mean (SD)** Intervention (n=105): 0% **6 Months:** Intervention (n=105): 14.5%

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
pharmacies **Scale:** 15 family physicians and 6 community pharmacies; 30 peer health educators; 406 seniors participated **Design:** Before-After w/o comparison **Intervention duration:** 3 months **Quality of Execution:** Good (1 limitation) **Limitation(s):** Interpretation of Results - follow up <80% **Funding:** Canadian Stroke Network **Applicability:** For this study, mainly to 65+ Canadian women with health insurance attending CVD screening sessions at community pharmacies	**Reported Baseline Demographics [Intervention Participants]:** Age (mean): 75.7 yrs (SD 6.2) Sex: Male: 40.4%, Female: 59.6% Race/ethnicity: White: 98.5% (Canadian); 1.5% (South Asian, First Nations, or Aboriginal, Inuit, or black ethnicity Education: NR Low income: NR Health insurance: 100% (universal coverage) Unemployed: NR **Reported Risk Factors [Intervention Participants]:** High BP: 57.8% High Cholesterol: 33.0% Diabetes: 15.6% Smoking: 6.2% Pre-existing CVD event: 17.4%	Health Canada's "Heart disease – info-sheet for seniors" and Heart and Stroke Foundation's "Be Heart Smart") and referred participants to community physicians and pharmacists for those with elevated BP. They also provided information on local resources about hypertension and modifiable risk factors and took BP measurements **CHW Core Roles Met:** Bridging/cultural mediation between community and the health care system + providing culturally appropriate information and health education + ensuring that people get the services they need + providing direct services and meeting basic needs **CHW Models of Care Met:** Member of a care delivery team + navigator + screening and health education provider **CHW Characteristics:** CHW matched to population by: Location + Age Payment: CHWs were volunteers Educational background: NR Years of experience: NR Supervisor: NR CHW performance evaluation: NR Recruitment: NR Training: 2h training sessions, which included education on hypertension and other modifiable	**Absolute pct pt change = 14.5 95% CI : 11.1, 18.0** **Change in SBP (mmHg)** **Baseline: mean (SD)** Intervention (n=105): 147.9 (NR) **6 m:** Intervention (n=105): 132.9 (NR) **Change in mean difference = -15.1 (p-value not reported)** **Additional Outcomes (see separate table):** Medication Adherence **Summary**: There was a favorable change in proportion with BP at goal (significant), and SBP.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		cardiovascular risk factors, instruction on how to interpret blood pressure information, as well as screening sessions and hands-on training in blood pressure measurement + hands on training on recording BP measures plus didactic lectures **Other provider(s):** NR **Other provider(s) activities**: NR **Community Partners Involved:** N/A	
Author(s): Kim et al. 2004 **Location:** California **Setting(s):** participants' homes + community centers at local parks and neighborhoods + churches + school-based parent centers + worksites **Scale:** Study was conducted at multiple community sites and 9 lay health workers conducted educational sessions. A total of 272 residents enrolled in the program **Design:** Before-After w/o comparison **Intervention duration:** 3 months	**Inclusion:** Latino residents of Pacoima + 18 yrs. or older **Exclusion:** NR **Reported Baseline Demographics [Intervention Participants]:** Age (mean): 38.0 yrs. Sex: Male: 2.30%; Female: 97.7% Race/ethnicity: Hispanic: 100% Education (mean): 9.0 yrs. Low income: NR No health insurance: 51.4% Unemployed: 67.3% **Reported Risk Factors**	**CHW Activities:** Lay health advisors offered 3 group health education classes in the community, one each on physical activity, maintaining a smoke-free environment, and healthy nutrition. Classes were in Spanish, and were offered in the community. Each class was 2 hours long with at least a 1-week interval between classes. Participants who missed 1 or more classes were contacted by the LHAs and offered separate make-up classes, often on an individual basis. Each outreach participant was also given bilingual educational materials on physical activity, smoke-free environment, and healthy nutrition. **CHW Core Roles Met:** Providing culturally appropriate information and health education + ensuring	**No health outcomes were reported** **Additional Outcomes (see separate table):** physical activity, nutrition, smoking outcomes (filed under additional outcomes) **Summary:** Participants receiving health education classes on physical activity, nutrition, and maintaining a smoke-free environment from a lay health advisor reported significant improvements in nutrition, physical activity, and smoking behaviors.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Quality of Execution: Fair (2 limitations) **Limitation(s):** Sampling - sampling frame not adequately described Interpretation of Results - translation bias as 1/3 of behavioral items were directly translated as opposed to using the already developed Spanish questionnaire **Funding:** NR **Applicability:** For this study, mainly to Hispanic females who are unemployed receiving 3 group health education classes delivered by lay health advisors focused on principles of physical activity, maintaining a smoke-free environment, and healthy nutrition	**[Intervention Participants]:** Not Reported	people get services they need + building individual and community capacity **CHW Models of Care Met:** Screening and health education provider + outreach/enrollment/information agent **CHW Characteristics:** CHW matched to population by: Language + race/ethnicity Payment: paid a salary for attending training and were reimbursed for transportation Educational background: NR Years of experience: NR Supervisor: NR CHW performance evaluation: NR Recruitment: NR Training: Attended 3-hour trainings 2x/week in principles of physical activity, maintaining a smoke-free environment, and healthy nutrition plus additional training on general research techniques (e.g., human subject protection, research strategies, class management, etc.). **Other provider(s):** N/A **Other provider(s) activities:** N/A **Community Partners Involved:** LA County Department of Health	

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		Services + UCLA School of Nursing + local community-based organizations	
Author(s): Medina et al. 2007 **Location:** Texas **Setting:** Community setting located in the home and classroom **Scale:** Hispanic adults from a local metropolitan area (n=213) recruited to participate in the program and met the study's eligibility criteria. One male and 18 female promoters (CHWs) were recruited. **Design:** Before-After w/o comparison **Intervention duration**: 6 months **Quality of Execution:** Fair (3 limitations) **Limitation(s):** Interpretation of Results - F/u < 80% + potential for recall bias as all outcome measures were based on self-report + did not control for self-selection bias" **Funding:** NIH, National Heart, Lung and Blood	**Inclusion:** Hispanic +≥18 yrs. old + not currently being treated for any cardiovascular, hypertensive, or diabetes condition. **Exclusion**: NR **ARM 1 – CLASSROOM INTERVENTION** **Reported Baseline Demographics [Intervention Participants]** Age (mean): 35.7 yrs. Sex: Male: 12.0%; Female: 88.0% Race/ethnicity: Hispanic 100% Education: NR Low income: NR Health Insurance: NR Unemployed: NR Previously incarcerated: NR **Reported Risk Factors [Intervention Participants]:** High BP: 22.0% High cholesterol: 18.0% Diabetes: 9.0%	**ARM 1 – CLASSROOM INTERVENTION** **CHW Activities:** The promotores met weekly with the classroom group and delivered six structured, educational sessions using the Su Corazon Su Vida curriculum and materials. Culturally and linguistically relevant heart-health materials from NHLBI and other instructional documents distributed during sessions. Conducted periodic phone calls to participants to encourage retention and health behaviors. **CHW Core Roles Met:** Providing culturally appropriate information and health education + providing informal counseling and social support + building individual and community capacity **CHW Models of Care Met**: Screening and health education provider + outreach/enrollment/information agent **ARM 1 – HOME GROUP INTERVENTION** **CHW Activities:** Distribution of health education materials were mailed or delivered to the participants' homes including NHBLI materials sent to the	**No health outcomes were reported** **Additional Outcomes (see appendix):** physical activity, nutrition, weight control practices **Summary:** Improvements were seen for both the home group and the classroom group across the physical activity and nutrition outcomes using the promotores model.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Institute **Applicability:** For this study, Hispanic women receiving culturally appropriate and accessible health education and informal counseling and social support in both a classroom and home based setting with a promtora	Current Smoker: 3.0% Overweight: 49.0% overweight History of heart disease: 25.0% **ARM 1 – HOME GROUP INTERVENTION** **Reported Baseline Demographics [Intervention Participants]** Age (mean): 39.4 yrs. Sex: Male: 24.0%; Female: 76.0% Race/ethnicity: Hispanic 100% Education: NR Low income: NR Health Insurance: NR Unemployed: NR **Reported Risk Factors [Intervention Participants]:** High BP: 9.0% High cholesterol: 7.0% Diabetes: 7.0% Current Smoker: 13.0 % Overweight: 37.0% overweight History of heart disease: 25.0%	classroom group. Monthly phone calls from the promotores to confirm they had received the material and to encourage them to read it; and personalized postcards every two to six months to encourage retention. **CHW Core Roles Met:** providing culturally appropriate information and health education + providing informal counseling and social support **CHW Models of Care Met***:* Screening and health education provider + outreach/enrollment/information agent **CHW Characteristics [BOTH ARMS]:** CHW matched to population by: language (Spanish) + race/ ethnicity (Hispanic/ Latino) + location Payment: approx. 1/2 of the promotores were paid Educational background: <H.S. (approx. middle school education) Years of experience: NR Supervisor: Supervised by study investigators CHW performance evaluation: NR Recruitment: community recruitment from the neighborhood + local media ad + local agencies involved in the training of CHWs + network	

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		partner organizations Training: 1) 50 hours of training total + 50 hours of practicum including didactic training and hands on training. Both focused on hypertension, hyperlipidemia, diabetes, and health behavior change **Other provider(s):** N/A **Other provider(s) activities**: N/A **Community Partners Involved:** Community agencies/ organizations working with Hispanics was established to inform implementation strategies	
Author(s): Spinner et al. 2012 **Location:** Florida + Texas + Maryland **Setting:** Churches and community health centers + non-Academically affiliated PCP clinic **Scale:** Intervention included 7 community health centers and 10 education sessions took place in churches, clinics, and community centers. Participants (n=462, 435 used in analysis) **Design:** Before-After w/o comparison	**Inclusion:** NR **Exclusion:** NR **Reported Baseline Demographics [Intervention Participants]:** Age (mean): 40.4 yrs. Sex: Male: 14.1%; Female: 85.9% Race/ethnicity: Hispanic: 95.2%; Black: 5.0%; native Hawaiian or Pacific Islander: 0.9% Education: NR Low income: NR Health insurance: NR	**CHW Activities:** Su Corazon Su Vida (heart healthy manual) used by the CHWs (promotoras) along with other educational materials and teaching tools to conduct a series of 10 educational sessions in group format on a weekly basis in churches, clinics, and community centers. Promotoras served as a link between medical providers and community residents. Promotoras also administered the pre-and post-tests to participants to gauge changes in knowledge, behaviors, and attitudes toward CVD. **CHW Core Roles Met:** Bridging/cultural mediation between community and the health care system + providing culturally appropriate information	**Health outcomes were not reported** **Additional Outcomes (see separate table):** Physical activity, nutrition, smoking, weight management behaviors **Summary:** There were improvements in physical activity and heart healthy knowledge measures and a small reduction in current smoking showing promotoras are useful in changing knowledge and behaviors that impact CVD.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Intervention duration: 2 months **Quality of Execution:** Fair (4 limitations) **Limitation(s):** Sampling - Participant recruitment not provided + inclusion criteria wasn't clearly specific Interpretation of Results - study used self-reported pre/post data + possible contamination - participants could have been exposed to other interventions taking place at the clinics + study duration ≤ 2 months **Funding:** NIH, National Heart, Lung, and Blood Institute **Applicability:** For this study, mainly to Hispanic women with a family history of heart disease receiving group health education sessions with CHWs	Unemployed: NR **Reported Risk Factors [Intervention Participants]** Diabetes: 22.2% Current Smoker: 9.5% Alcohol/substance abuse: 21.3% CVD: 46.8% family history of heart disease	and health education + building individual and community capacity **CHW Models of Care Met:** Screening and health education provider **CHW Characteristics:** CHW matched to population by: Language (Spanish) + race/ethnicity (Hispanic) Payment: NR Educational background: NR Years of experience: NR Supervisor: NR CHW performance evaluation: Field visits to maintain quality control of the program with evaluation and feedback sessions Recruitment: NR Training: Consisted of Your Health, Your Life curriculum developed by NHLBI using the didactic lecture method to focus on behavioral health change **Other provider(s):** N/A **Other provider(s) activities**: N/A **Community Partners Involved:** community health centers + churches	
Author(s): Truncali et al. 2010	**Inclusion:** All seniors at participating senior centers	**CHW Activities:** Provided one-on-one face-to-face sessions bimonthly at the Senior	**Blood Pressure Outcomes** **Proportion with BP at goal (%)**

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Location: New York City **Setting:** Senior community centers **Scale:** Six program sites in four NYC boroughs. Sites were considered medium to large-sized senior centers (and served 60 to 160 lunches per day.) On average, six volunteers were trained per site. Number of newly enrolled visitors n=244 (single Visit participants: 139; multiple visit participants: 105) **Design:** Before-After w/o comparison **Intervention duration:** 5.8 months (mean) **Quality of Execution:** Good (1 limitation) **Limitation(s):** Description - race/ethnicity not provided **Funding:** NYC DFTA + NYC DOHMH **Applicability:** For this study, mainly to older adult males with high blood pressure (hypertension) receiving one-on-one face to face sessions with CHWs to address BP problems.	**Exclusion:** Individuals who cannot have their BP measured using a normal or large adult cuff. **Reported Baseline Demographics [Intervention Participants]:** Age (mean): 74.2 yrs. Sex: Male: 31.0%; Female: 69.0% Race/ethnicity: NR Education: NR Low income: NR Health Insurance: NR Unemployed: Retired 100% **Reported Risk Factors [Intervention Participants]:** High BP: 82.0%	community centers. The CHW kept a record card for each participant with demographic, healthcare provider, and hypertension information. During each session, two BP measurements were taken with an automatic BP monitor for each participant. Their BP status was updated/ collected and the CHW advised about medication taking, physician seeking, and other action steps. Participants without healthcare were referred to NYC resources. **CHW Core Roles Met:** Bridging/cultural mediation between community and the healthcare system + providing culturally appropriate information and health education + ensuring people get the services they need + providing informal counseling and social support + providing direct services and meeting basic needs **CHW Models of Care Met:** Screening and health education provider + outreach/enrollment/information agent **CHW Characteristics:** CHW matched to population by: Location + age (older adults) Payment: No were volunteers Educational background: NR Years of experience: NR	**Baseline:** Intervention (n=105): 35.0% **6 Months** Intervention (n=105): 45.0% **Absolute pct pt change = 10.0; p=0.16** **Change in SBP (mmHg)** **Baseline: Mean (SD)** Intervention (n=105):143.7 (19.3) **6 Months:** Intervention (n=105): 139.8 (NR) **Change in mean difference = -3.9; p=0.04** **Additional Outcomes:** N/A **Summary:** There were significant reductions in systolic BP as well as an increase in the proportion of participants with BP controlled.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		Supervisor: Senior center directors and health promotion staff CHW performance evaluation: DFTA staff conducted an on-site visit every 4-5 months to ensure program fidelity Recruitment: Center directors at each senior center recruited CHW Training: Received training from health educator using hands on exercises + practice teaching/role playing with both focusing on hypertension **Other provider(s):** N/A **Other provider(s) activities**: N/A **Community Partners Involved:** N/A	
Author(s): Yeo et al. 2011 **Location:** California **Setting(s):** participant's home + migrant worker camps + senior center + San Benito Health Foundation Clinic + mobile health clinic van **Scale:** A total of 1,300 individuals were screened for the project. Of those screened, 338 were enrolled in the program (49 for blood pressure, 161	**Inclusion:** Diabetes (fasting plasma glucose of 140 mg/dL or greater; OR SBP >160 mmHg; OR DBP >90 mmHg; OR LDL >160 mg/dL; OR LDL >130 mg/dL IF two or more are present: male, smoking, HDL <85 mg/dL, hypertension, diabetes, severe obesity, or family hx of coronary heart disease; OR depression (Geriactric Depression Score of ≥15/30) **Exclusion:** NR	**CHW Activities:** Provided bilingual one-on-one and group face-to-face sessions at participants' home, at the migrant worker camp and the San Benito Health Foundation Clinic. CHW provided nutrition education via home visits as well as cooking demonstrations and nutrition classes offered at the clinic. CHWs also provided education on other lifestyle changes in these settings and helped set behavior change goals and provided referrals to other healthcare services. **CHW Core Roles Met:**	**Blood Pressure Outcomes** **Change in SBP (mmHg)** **Baseline: Mean (SD)** Intervention (n=49): 165.8 (NR) **18 Months:** Intervention (n=17): 147.9 (NR) **Change in mean difference = -17.9; p>0.05** **Change in DBP (mmHg)** **Baseline: Mean (SD)** Intervention (n=49): 95.2 (NR) **18 Months:** Intervention (n=17): 83.8 (NR) **Change in mean difference = -11.4; p<0.01** **Cholesterol Outcomes**

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
for hypercholesterolemia, 132 for diabetes, and 36 for depression). Staff included 3 CHWs, 2 nurses, and a registered dietitian. **Design:** Before-After w/o comparison **Intervention duration:** 24 months **Quality of Execution:** Fair (2 limitations) **Limitation(s):** Data Analysis - analytic tests not reported Interpretation of Results - high attrition (f/u < 80%) **Funding:** Rural Health Care Services Outreach Grant + Bureau of Health Professions for Geriatric Education Centers **Applicability:** For this study, mainly to low-income female Hispanic persons with either high BP, high cholesterol, diabetes, or depression receiving care from CHWs, nurses, and dietitians at home, migrant worker camps, or at a health clinic	**Reported Baseline Demographics [Intervention Participants]:** Age (mean): ≥50 yrs.: 54.0% Sex: Male: 36.0%; Female: 64.0% Race/ethnicity: Hispanic: 90.0%, white: 9.0%; American Indian/Alaskan Native: 0.9% Education: NR Low income: 100% Health insurance: NR Unemployed: 45.0% **Reported Risk Factors [Intervention Participants]:** High BP: 14.8% High cholesterol: 48.8% Diabetes: 40.0% Depression: 10.9%	Bridging/cultural mediation between community and healthcare system + providing culturally appropriate information and health education + ensuring people get services they need + building individual and community capacity **CHW Models of Care Met:** Member of care delivery team + screening and health education provider + outreach/enrollment/information agent **CHW Characteristics:** CHW matched to population by: Language + race/ethnicity Payment: NR Educational background: NR Years of experience: NR Supervisor: NR CHW performance evaluation: NR Recruitment: NR Training: NR **Other provider(s):** vocational nurse + registered nurse + registered dietitian **Other provider(s) activities**: registered dietitian provided nutrition education via homes visits and cooking demonstrations at the clinic with CHWs. Nurses assessed the patient's goals (e.g., blood glucose control, weight,	**Change in LDL (mg/dL)** **Baseline: Mean (SD)** Intervention (n=159): 159.1 (NR) **18 Months:** Intervention (n=34): 144.1 (NR) **Change in mean difference = -15.0; p>0.05** **Diabetes Outcomes** **Change in A1c (%)** **Baseline: Mean (SD)** Intervention (n=130): 9.69 (NR) **24 Months:** Intervention (n=34): 9.1 (NR) **Change in mean difference = -0.6; p<0.05** **Additional Outcomes:** N/A **Summary**: Significant reductions were found for change in DBP and A1c, while non-significant reductions in SBP and LDL-cholesterol were also observed

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		and cholesterol) **Community Partners Involved:** Local senior center provided transportation + community healthcare & social service agencies	
Author(s): Zoellner et al. 2011 **Location:** Mississippi **Setting:** Home + community center **Scale:** HUB City Steps was planned in the context of a community-wide wellness initiative, Get Healthy Hattiesburg (GHH), Hattiesburg is a midsized city in SE Mississippi (approx. 45,000 residents). Approximately 1060 residents exposed to study promotion & recruitment (345 screened for eligibility). Enrolled in the HUB City Steps intervention (n= 269). A total of 24 walking coaches (CHWs). **Design:** Before-After w/o comparison **Intervention duration:** 6 months **Quality of Execution:** Good (1 limitation)	**Inclusion:** ≥ 18 yrs. old + English-speaking + non-institutionalized + residing in the Hattiesburg area. Individuals were eligible for study participation regardless of BP status and medication regimen. Study directed toward AA. **Exclusion:** Screened individuals with ≥ BP 180/110 were directed to obtain immediate medical attention. **Reported Baseline Demographics [Intervention Participants]:** Age (mean): 44.3 yrs. Sex: Male: 14.9%; Female: 85.1% Race/ethnicity: Black/AA: 94.4%; White: 5.2%; American Indian or Alaskan Native: 0.4% Education: >H.S.: 5.5%; H.S. grad: 15.2%; some college: 22.7%; college grad: 28.3%; post graduate: 24.6%	**CHW Activities:** Walking coach provided one-on-one telephone and group sessions by contacting each group member weekly to encourage routine walking. Walking coach worked with each participant to set individual weekly walking goals; encouraged each group member to walk throughout each week; arranged group walking and health-related activities (minimum of two per month); monitored each group members walking and notified them of educational sessions. Served as a liaison between walking group members and project staff. **CHW Core Roles Met:** Providing informal counseling and social support + building individual and community capacity **CHW Models of Care Met:** Member of care delivery team +community organizer **CHW Characteristics:** CHW matched to population by: location + race/ethnicity (AA) Payment: Hourly (part-time): $15.00/hr. for up to 15 hours for training and up to 8 hours per	**Blood Pressure Outcomes** **Change in SBP (mmHg)** **Baseline: Mean (SD)** Intervention (n=269): 126.0 (19.1) **6 Months:** Intervention (n=190): 119.6 (15.8) **Change in mean difference = -7.3; p=0.0002** **Change in DBP (mmHg)** **Baseline: Mean (SD)** Intervention (n=269): 83.2 (12.3) **6 Months:** Intervention (n=190): 78.6 (11.1) **Change in mean difference = -4.2; p<0.0001** **Cholesterol Outcomes** **Change in total cholesterol (mg/dL)** **Baseline: Mean (SD)** Intervention (n=269): 177.2 (39.1) **6 Months:** Intervention (n=190): 178.7 (40.1) **Change in mean difference =1.5 (p>0.05)** **Change in LDL (mg/dL)** **Baseline: Mean (SD)** Intervention (n=269): 100.2 (35.4) **6 Months:** Intervention (n=190): 103.4 (36.2) **Change in mean difference =3.2; p>0.05** **Change in HDL (mg/dL)**

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
Limitation(s): Interpretation of Results - f/u < 80% (f/u=71%) **Funding:** National Institute on Minority Health and Health Disparities (NIH) **Applicability:** For this study, mainly to female, African-Americans who tended to be obese with some presenting with high BP, receiving one-on-one telephone and group sessions from the walking coach (CHW) with additional care and services from Registered dietitian, psychology grad students, fitness instructors, and professional health educators for management of hypertension.	Low income: (<$20,000): 28.3% Health Insurance: NR Unemployed: NR **Reported Risk Factors [Intervention Participants]:** High BP: 42.0% Smoking: 8.6% BMI: 32.7 kg/m^2 Alcohol/substance abuse: NR	week during the intervention phase Educational background: NR Years of experience: NR Supervisor: Intervention coordinator (Master's level African American woman) CHW performance evaluation: Coaches (CHWs) maintained participant contact logs, submitted biweekly time sheets to the community coordinator. Coaches were provided with biweekly progress reports on their group members. Recruitment: Interpersonal contact-community (word-of-mouth) + media ad through flyers Training: 16 hours of training including: content on program goals, intervention design, protocols, and procedures, walking coach responsibilities and compensation, group leadership and motivation, CPR and first aid, participant eligibility and recruitment strategies. **Other provider(s):** Registered dietitian + psychology grad students + fitness instructors + professional health educators **Other provider(s) activities**: Motivational counseling was provided by doctoral level psychology students and registered dietitians. Nutrition education sessions were led by	**Baseline: Mean (SD)** Intervention (n=269): 51.9 (15.0) **6 Months:** Intervention (n=190): 49.8 (15.0) **Change in mean difference =-2.1; p>0.05** **Change in triglycerides (mg/dL)** **Baseline: Mean (SD)** Intervention (n=269): 130.9 (79.8) **6 Months:** Intervention (n=190): 132.6 (81.3) **Change in mean difference =1.7; p>0.05** **Diabetes Outcomes** **Change in non-fasting glucose (mg/dL)** **Baseline: Mean (SD)** Intervention (n=269): 104.5 (37.4) **6 Months:** Intervention (n=190): 103.6 (43.5) **Change in mean difference = -0.9; p>0.05** **Additional Outcomes (see separate table):** physical activity, nutrition **Summary:** There were significant reductions in both systolic and diastolic BP. All of the cholesterol outcomes were unfavorable with increases in mean LDL, total cholesterol, and triglycerides and a decrease in mean HDL among the participants. No change was shown for non-fasting glucose. There were improvements in physical activity (walking test) while 4 of the 5 nutrition outcomes were unfavorable with only reductions in sugar intake showing positive results among the participants.

Study Details	Population Characteristics	Intervention + Comparison Description	Health Outcomes and Summary
		professional health educators or registered dietitians (90 minute monthly sessions) and assisted by 2 fitness instructors covering PA and the dash diet. **Community Partners Involved:** University of Southern Mississippi + local city and county government + public and private health and medical clinics and agencies + organizations with an educational mission + private non-profit community organizations	

Abbreviations:

BMI, body mass index

CI, confidence interval

DBP, diastolic blood pressure

kg/m^2, kilograms per meters squared

mg/Dl, milligrams per deciliter

mg/dL, milligrams per deciliter

mmHg, millimeters of mercury

NR, not reported

SBP, systolic blood pressure

SD, standard deviation