

The Community Guide (<https://www.thecommunityguide.org>)

Systematic Review

Cardiovascular Disease: Interventions Engaging Community Health Workers

Topic	Cardiovascular Disease
Recommended	March 2015
Audience	Adults, Healthcare Providers, Older Adults
Setting	Clinical/Health Systems, Community, Home, Urban
Strategy	Case Management, Community Organizing/Community-based, Health Education, Outreach, Screening

Summary of CPSTF Finding

The [Community Preventive Services Task Force \(CPSTF\)](#) [recommends](#) interventions that engage community health workers to prevent cardiovascular disease (CVD) among clients at increased risk.

- The CPSTF finds strong evidence of effectiveness for interventions that engage community health workers in a team-based care model to improve blood pressure and cholesterol.
- The CPSTF finds sufficient evidence of effectiveness for interventions that engage community health workers for health education, and as outreach, enrollment, and information agents to increase self-reported health behaviors (physical activity, healthful eating habits, and smoking cessation) in clients at increased risk for CVD.

A small number of studies suggest that engaging community health workers improves appropriate use of healthcare services and reduces morbidity and mortality related to CVD.

When interventions engaging community health workers are implemented in minority or underserved communities, they can improve health, reduce health disparities, and enhance health equity.

Economic evidence indicates these interventions are cost-effective.

Intervention

Interventions that engage community health workers to prevent cardiovascular disease aim to reduce risk factors among those at higher risk by providing culturally appropriate education, offering social

support and informal counseling, connecting people with services, and in some cases delivering health services such as blood pressure screening.

Community health workers (including promotores de salud, community health representatives, community health advisors, and others) are frontline public health workers who serve as a bridge between underserved communities and healthcare systems. They typically are from, or have a unique understanding of, the community served. Community health workers often receive on-the-job training and work without professional titles. Organizations may hire paid community health workers or recruit volunteers.

CPSTF Finding and Rationale Statement

Read the full [CPSTF Finding and Rationale Statement](#) for details including implementation issues, possible added benefits, potential harms, and evidence gaps.

Promotional Materials

Community Guide News

- [CPSTF Recommends Interventions That Engage Community Health Workers to Prevent Cardiovascular Disease](#)
Developed by The Community Guide in collaboration with CDC's Division for Heart Disease and Stroke Prevention

One Pager

- [Interventions Engaging Community Health Workers](#)

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- [Physical Activity: Enhanced School-Based Physical Education](#)
- [Vaccination Programs: Home Visits to Increase Vaccination Rates](#)
- [Physical Activity: Family-Based Interventions](#)

About The Systematic Review

The CPSTF finding is based on evidence from a systematic review of 31 studies with 35 study arms (search period: beginning of database – July 2013).

The systematic review was conducted on behalf of the CPSTF by a team of specialists in systematic review methods, and in research, practice, and policy related to cardiovascular disease prevention.

Context

There is no content for this section.

Summary of Results

More details about study results are available in the [CPSTF Finding and Rationale Statement](#).

Interventions that engage community health workers (CHW) for cardiovascular disease prevention use one or more of the following models of care (HRSA 2007).

- Screening and health education. CHWs screen for high blood pressure, cholesterol, and behavioral risk factors recommended by the United States Preventive Services Task Force (USPSTF); deliver individual or group education on CVD risk factors; provide adherence support for medications; and offer self-management support for health behavior changes, such as increasing physical activity and smoking cessation (31 [study arms](#)).
- Outreach, enrollment, and information. CHWs reach out to individuals and families who are eligible for medical services, help them apply for these services, and provide proactive client follow-up and monitoring, such as appointment reminders and home visits (20 study arms).
- Team-based care. As care team members, CHWs partner with clients and licensed providers, such as physicians and nurses, to improve coordination of care and support for clients (17 study arms).
- Patient navigation. CHWs help individuals and families navigate complex medical service systems and processes to increase their access to care (8 study arms).
- Community organizers. CHWs facilitate self-directed change and community development by serving as liaisons between the community and healthcare systems (4 study arms).

Overall, included studies showed the following:

- Among populations at increased risk for CVD, interventions that engaged CHWs in a team-based care model led to large improvements in blood pressure and cholesterol outcomes. Interventions that engaged CHWs as health educators or as outreach, enrollment, and information agents led to modest improvements in health behavior outcomes.
- There was not enough evidence to draw conclusions about interventions that engaged CHWs as patient navigators or community organizers.
- Studies reported improvements for appropriate use of health care services (2 studies); screening for CVD risk factors (1 study); and CVD-related morbidity and mortality (2 studies).

- Most included studies engaged CHWs to work with underserved groups, suggesting these interventions can be effective in improving minority health and reducing health disparities related to cardiovascular disease (22 studies).

Included studies were stratified based on suitability of study designs, as defined by the CPSTF (Briss et al., 2000).

- Eighteen studies used designs considered to be of greatest/moderate suitability:
 - Individual randomized controlled trial (7 studies)
 - Group randomized controlled trial (4 studies)
 - Non-randomized trial (3 studies)
 - Prospective cohort (1 study)
 - Case-control (1 study)
 - Other designs with a concurrent comparison group (2 studies)
- Thirteen studies used a design considered to be least suitable:
 - Before-after without a comparison group

Interventions that Engaged CHWs in a Team-Based Care Model

- Blood pressure outcomes
 - Proportion of clients with blood pressure at goal
 - Greatest/moderate suitability studies: median increase of 17.6 [percentage points](#) (4 studies)
 - Least suitable studies: increase of 10.8 percentage points (1 study) and increase of 14.5 percentage points (1 study)
 - Change in systolic blood pressure
 - Greatest/moderate suitability studies: median reduction of 6.0 mmHg (6 studies with 7 study arms)
 - Least suitable studies: median reduction of 11.2 mmHg (4 studies)
 - Change in diastolic blood pressure
 - Greatest/moderate suitability studies: median reduction of 1.1 mmHg (6 studies with 7 study arms)
 - Least suitable studies: median reduction of 4.2 mmHg (3 studies)
- Cholesterol outcomes
 - Proportion of clients with total cholesterol at goal
 - Greatest/moderate suitability studies: increase of 7.0 percentage points (1 study)

- Change in total cholesterol
 - Greatest/moderate suitability studies: decreases of 19.7 mg/dL (1 study) and 0.4 mg/dL (not significant; 1 study)
 - Least suitable studies: increase of 1.5 mg/dL (not significant; 1 study)
- Proportion of clients with low-density lipoprotein (LDL) cholesterol at goal
 - Greatest/moderate suitability studies: increases of 28.9 percentage points (1 study) and 3.2 percentage points (1 study)
 - Least suitable studies: increase of 10.0 percentage points (1 study)
- Change in LDL cholesterol
 - Greatest/moderate suitability studies: median decrease of 15.5 mg/dL (3 studies)
 - Least suitable studies: median decrease of 15.0 mg/dL (3 studies)
- Change in high-density lipoprotein (HDL) cholesterol
 - Greatest/moderate suitability studies: median change of 0 mg/dL (3 studies)
 - Least suitable studies: increase of 1.0 mg/dL (not significant; 1 study) and decrease of 2.1 mg/dL (not significant; 1 study)
- Change in triglycerides
 - Greatest/moderate suitability studies: median decrease of 8.0 mg/dL (3 studies)
 - Least suitable studies: decrease of 23.0 mg/dL (1 study) and increase of 1.7 mg/dL (not significant; 1 study)
- Improvements in blood pressure and cholesterol outcomes were smaller when interventions engaged CHWs using other models of care other than team-based care.

Interventions that Engaged CHWs as Health Educators

- Physical activity outcomes
 - Greatest/moderate suitability studies: significant (1 study) and nonsignificant (1 study) improvements in physical activity
 - Least suitable studies: significant improvements (5 studies with 6 study arms)
- Nutrition outcomes
 - Greatest/moderate suitability studies: significant improvements (2 studies)
 - Least suitable studies: significant improvements (5 studies with 6 study arms)
- Smoking outcomes
 - Greatest/moderate suitability studies: median decrease of 0.5 percentage points in the proportion of current smokers (3 studies)

- Least suitable studies: decreases in the proportion of current smokers of 3.7 percentage points (1 study) and 0.6 percentage points (1 study)

Interventions that Engaged CHWs as Outreach, Enrollment, and Information Agents

- Physical activity outcomes
 - Greatest/moderate suitability studies: significant (1 study) and nonsignificant (1 study) improvements in physical activity
 - Least suitable studies: significant improvements (3 studies with 4 study arms)
- Nutrition outcomes
 - Greatest/moderate suitability studies: significant improvements (2 studies)
 - Least suitable studies: significant improvements (3 studies with 4 study arms)
- Smoking outcomes
 - Greatest/moderate suitability studies: decreases in the proportion of current smokers of 1.9 percentage points (1 study) and 0.5 percentage points (1 study)

Summary of Economic Evidence

More details about study results are available in the [CPSTF Finding and Rationale Statement](#).

Economic evidence indicates that interventions engaging community health workers for the prevention of cardiovascular disease are cost-effective. All monetary values are reported in 2015 U.S. dollars.

The economic review included nine studies (6 from the United States, 2 from the United Kingdom, and 1 from Canada). Most patients in the studies came from minority or low-income populations.

- The median intervention cost per person per year was \$329 (8 studies)
- The median change in healthcare cost per person per year was \$82 (7 studies)
- The median estimated cost per [quality adjusted life year \(QALY\)](#) gained was \$17,670 (4 studies)
- All estimates were below \$50,000—a frequently used benchmark for cost-effectiveness.

Applicability

Based on results for interventions in different settings and populations, the CPSTF finding should be applicable to the following:

- Adults and older adults who have high blood pressure or high cholesterol

- Women and men
- African-American, Hispanic, and low-income populations
- Urban environments
- Healthcare systems and community settings

Evidence Gaps

Additional research and evaluation are needed in these areas, to fill existing gaps in the evidence base.

[\(What are evidence gaps?\)](#)

- Most studies evaluated outcomes at 12 months, a relatively short follow-up time for some CVD risk factors. How effective are longer interventions and what are the sustained, ongoing effects of these programs on different CVD risk factors (e.g., blood pressure, cholesterol, morbidity)?
- How effective are programs implemented among diverse populations that vary by comorbidity, sexual orientation, disability, race and ethnicity (e.g., American Indian, Alaskan native, Asian), and socioeconomic status (e.g., educational attainment, health coverage)?
- How does intervention effectiveness vary by the frequency of CHW-patient interactions, visit length, mode of delivery (e.g., face-to-face, telephone), and context (e.g., individual or group session)?
- How can financing, communication, and organization better facilitate the integration of CHWs into health promotion and health care efforts that bridge clients, community resources, and healthcare systems?
- Do CHWs who work in both community and healthcare settings build and enhance community-clinical linkages that support effective patient navigation?
- How can clients at high risk for cardiovascular disease be identified, particularly when they do not have a usual source of care?
- How effectively do CHWs connect clients who lack sufficient health coverage with appropriate care and services?
- Most of the included studies were funded by public grants. How can CHW programs be sustained and funded? How could reimbursement arrangements be used to pay for CHW services? Does the funding mechanism have an impact on intervention effectiveness?
- How effective are interventions that use a community-based participatory approach?
- What are best practices for recruiting, selecting, training, supervising, and evaluating CHWs?
- What are optimal ways to match CHWs with patient populations (e.g., SES, personal experience)?
- How effective are interventions that engage CHWs using the five identified models of care (i.e., screening and health education; outreach, enrollment and information; team-based care; patient navigation; community organization)?

- What is the incremental effectiveness and cost of adding CHWs to team-based care programs?
 - In most studies, interventions delivered services in either community or healthcare settings and on a smaller-scale (i.e., = 500 clients). How effective are interventions that engage CHWs in rural and worksite settings, or on a larger-scale (i.e., >500 clients)?
 - What are the complete and detailed costs and economic benefits of CHW interventions? What cost should be assigned for CHW services, whether they are volunteer or salaried?
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Study Characteristics

- Studies were conducted in the United States (28 studies), Canada (2 studies), and Western Europe (1 study).
 - Included studies evaluated interventions in healthcare systems (13 studies), communities (11 studies), or both (7 studies).
 - Studies were set primarily in urban areas (22 studies).
 - Study populations mainly included adults who were ages 18–64 years old (23 studies) and older adults who were 65 years and older (5 studies) who had one or more of the following risk factors: high blood pressure, high cholesterol, obesity, diabetes, or tobacco use.
 - In the included studies, 75% or more of the clients enrolled were African-American (9 studies), Hispanic (8 studies), or low-income (12 studies).
 - CHWs were frequently matched to the population they served by location (16 study arms), race/ethnicity (17 study arms), or language (15 study arms).
 - CHWs provided clients with culturally appropriate information and education on cardiovascular disease risk factors (21 study arms), lifestyle counseling (20 study arms), informal counseling and social support (22 study arms), and information on community resources (16 study arms).
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Publications








[Chattopadhyay SK, Jacob V, Mercer SL, Hopkins DP, Elder RW, Jones CD, Community Preventive Services Task Force. Community Guide Cardiovascular Disease Economic Reviews: Tailoring Methods to Ensure Utility of Findings. American Journal of Preventive Medicine. 2017;53\(6S2\):S155–63. Available at: <http://www.sciencedirect.com/science/article/pii/S0749379717303227?via%3Dihub>.](http://www.sciencedirect.com/science/article/pii/S0749379717303227?via%3Dihub)

Analytic Framework

[Analytic Framework](#)  [PDF – 77 kB]

Summary Evidence Table

Summary Evidence Tables – Effectiveness Review

- [Studies with Greatest or Moderate Suitability of Study Design](#)  [PDF – 348 kB]
- [Studies with Least Suitable Study Design](#)  [PDF – 216 kB]
- Health Behavior Change and Additional Outcomes:
 - [Medication Adherence](#)  [PDF – 23 kB]
 - [Nutrition](#)  [PDF – 69 kB]
 - [Physical Activity](#)  [PDF – 54 kB]
 - [Smoking](#)  [PDF – 41 kB]
 - [Additional](#)  [PDF – 48 kB]

Summary Economic Evidence Table

[Summary Evidence Table - Economic Review](#)  [PDF – 306 kB]

Included Studies

The number of studies and publications do not always correspond (e.g., a publication may include several studies or one study may be explained in several publications).

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Economic Review

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Additional Materials

Webinar

- [Engaging Community Health Workers to Prevent and Manage Disease](#) (September 20, 2017)
Developed by The Community Guide

Implementation Product

- [Best Practices for Cardiovascular Disease Prevention Programs: A Guide to Effective Health Care System Interventions and Community-Clinical Links](https://www.cdc.gov/dhdsp/pubs/guides/best-practices/index.htm) (<https://www.cdc.gov/dhdsp/pubs/guides/best-practices/index.htm>) 
Developed by CDC's Division for Heart Disease and Stroke Prevention

Search Strategies

A research librarian searched for published studies in the following databases: PubMed, Cochrane, CRD–York, EconLit, GoogleScholar, NTIS (National Technical Information Service), Sociological Abstracts (ProQuest), SSRN, WorldCat, and CINAHL. Additional studies were identified via suggestions from subject matter experts and hand–searches from reference lists.

Studies published in English from beginning of database through July 2013, limited to countries with high income economies as defined by the World Bank were searched and screened for inclusion.

Search Strategy – Effectiveness Review

Database: CINAHL (EBSCOHost)

Date Searched: 8/25/2013

Results: 2375

Search Strategy:

S5 S1 and S2 and S3 and S4

S4 (TX("team-based care" OR "integrated care" OR "coordinated care" OR "collaborative care" OR "primary care team" OR "primary care teams" OR navigator* OR liaison* OR screening* OR education* OR outreach* OR "home visit" OR "home visits" OR "home visiting" OR enroll* OR "community organizer" OR "community development" OR "health advocacy" OR "counseling" OR "self-management" OR "health behavior change" OR "behavior changes" OR "changed behavior" OR "changing behavior" OR "changed behaviors" OR "changed behavior" OR "changing behavior" OR "changed behaviors" OR "changing behaviors" OR "lifestyle modification" OR "lifestyle modifications" OR "modified lifestyle" OR "modified lifestyles") OR MH "Life Style Changes" OR MH "Counseling+" OR MH "Home Visits" OR MH Education+" OR MH "Health Screening+" OR MH "Multidisciplinary Care Team+" OR MH "Health Care Delivery, Integrated")

S3 (TX("hypertension" OR "blood pressure" OR cholesterol* OR "diabetes" OR diabetic* OR "obese" OR "obesity" OR "physical activity" OR "tobacco" OR "nutrition" OR "diet" OR "diets" OR "dieting"

OR alcohol* OR "aspirin" OR adher* OR "cardiovascular disease" or "cardiovascular diseases" or "comprehensive CVD risk reduction" OR "comprehensive cardiovascular disease risk reduction" OR "chronic disease" OR "chronic diseases") OR MH "Chronic Disease" OR MH "Patient Compliance+" OR MH "Medication Compliance" OR MH "Aspirin" OR MH "Alcoholic Intoxication" OR MH "Alcoholism" OR MH "Alcohol Rehabilitation Programs+" OR MH "Ethanol+" OR MH "Alcohol-Induced Disorders, Nervous System+" OR MH "Diet+" OR MH "Geriatric Nutrition" OR MH "Infant Nutrition+" OR MH "Child Nutrition" OR MH "Adolescent Nutrition" OR MH "Nutrition+" OR MH "Smoking Cessation Programs" OR MH "Smoking Cessation" OR MH "Smoking+" OR MH "Tobacco+" OR MH "Physical Activity" OR MH "Exercise+" OR MH "Obesity, Morbid" OR MH "Obesity" OR MH "Diabetes Mellitus+" OR MH "Hypercholesterolemia" OR MH "Cholesterol+" OR MH "Hypertension+")

S2 (TX("Outcome Assessment Health Care" OR "Treatment Outcome" OR "Outcome and Process Assessment Health Care" OR "Fatal Outcome" OR "effectiveness" OR "effective" OR "evaluation" OR "evaluations") OR MH "Fatal Outcome" OR MH "Outcome Assessment" OR MH "Treatment Outcomes+" OR MH "Evaluation")

S1 (TX("community health worker" OR "community health workers" OR "health advisor" OR "health advisors" OR "health worker" OR "health workers" OR "health advocate" OR "health advocates" OR "health paraprofessional" OR "health paraprofessionals" OR "community health representative" OR "community health representatives" OR "outreach worker" OR "outreach workers" OR "lay health worker" OR "lay health workers" OR "patient navigator" OR "patient navigators" OR promotora OR promotoras OR embajadores OR "embajadora" OR "embajadoras" OR "embajador" OR consejera OR consejeras) OR MH "Community Health Workers")

Database: Cochrane

Date Searched: 8/24/2013

Results: 909

Search Strategy:

#1 community health worker or community health workers or community health aide or community health aides or health advisor or health advisors or health worker or health workers or health advocate or health advocates or health paraprofessional or health paraprofessionals or community health representative or community health representatives or outreach worker or outreach workers or patient navigator or patient navigators or promotora or promotoras or embajador or embajadores or consejera or consejeras:ti,ab,kw [Word variations have been searched]

#2 Hypertension or blood pressure or cholesterol or diabetes or obesity or physical activity or tobacco or nutrition or diet or alcohol or aspirin or adherence or comprehensive CVD risk reduction or chronic disease or cardiovascular disease or cardiovascular diseases:ti,ab,kw [Word variations have been searched]

#3 #1 and #2

#4 Team-based care or integrated care or coordinated care or collaborative care or primary care teams or navigator or liaison or screening or education or outreach or home visits or enroll or community organizer or community development or health advocacy or counseling or self-management or health behavior change or lifestyle modification or Team-based care or integrated care or coordinated care or

collaborative care or primary care teams or navigator or liaison or screening or education or outreach or home visits or enroll or community organizer or community development or health advocacy or counseling or self-management or health behavior change or lifestyle modification:ti,ab,kw [Word variations have been searched]

#5 #3 and #4

Database: CRD-York <http://www.york.ac.uk/inst/crd/>

Date Searched: 8/23/2013

Results: 118

Search Strategy:

Any Field

community health worker* or community health aide* or health advisor* or health worker* or health advocate* or health paraprofessional* or community health representative* or outreach worker* or lay health worker* or patient navigator* or promotora* or embajador* or consejer*

AND

Any Field

hypertension or blood pressure or cholesterol* or hypercholesterol* or diabet* or obes* or exercise or physical activit* or tobacco or smoking or smoker* or nutrition* or diet* or alcohol* or aspirin or adhere* or cvd or cardiovascular or chronic

Database: EconLit (EBSCOHost)

Date Searched: 8/19/2013

Results: 124

Search Strategy:

S5 s1 and s2 and s3 and s4

S4 "team-based care" OR "integrated care" OR "coordinated care" OR "collaborative care" OR "primary care team" OR "primary care teams" OR navigator* OR liaison* OR screening* OR education* OR outreach* OR "home visit" OR "home visits" OR "home visiting" OR enroll* OR "community organizer" OR "community development" OR "health advocacy" OR "counseling" OR "self-management" OR "health behavior change" OR "behavior changes" OR "changed behavior" OR "changing behavior" OR "changed behaviors" OR "changing behaviors" OR "lifestyle modification" OR "lifestyle modifications" OR "modified lifestyle" OR "modified lifestyles"

S3 "hypertension" OR "blood pressure" OR cholesterol* OR "diabetes" OR diabetic* OR "obese" OR "obesity" OR "physical activity" OR "tobacco" OR "nutrition" OR "diet" OR "diets" OR "dieting" OR alcohol* OR "aspirin" OR adher* OR "cardiovascular disease" or "cardiovascular diseases" or "comprehensive CVD risk reduction" OR "comprehensive cardiovascular disease risk reduction" OR "chronic disease" OR "chronic diseases"

S2 "Outcome Assessment Health Care" OR "Treatment Outcome" OR "Outcome and Process Assessment Health Care" OR "Fatal Outcome" OR "effectiveness" OR "effective" OR "evaluation" OR "evaluations"

S1 "community health worker" OR "community health workers" OR "health advisor" OR "health advisors" OR "health worker" AND "health workers" OR "health advocate" OR "health advocates" OR "health paraprofessional" OR "health paraprofessionals" OR "community health representative" OR "community health representatives" OR "outreach worker" OR "outreach workers" OR "lay health worker" OR "lay health workers" OR "patient navigator" OR "patient navigators" OR promotora OR promotoras OR embajadores OR "embajadoras" OR "embajador" OR consejera OR consejeras

Database: Google

Date Searched: 8/24/2013

Results: 6

Search Strategy:

"health advisors" +hypertension

"community health workers" +cardiovascular

"community health workers" +hypertension

Database: NTIS (Dialog File 6)

Date Searched: 8/20/2013

Results: 711

Search Strategy:

S1 COMMUNITY()HEALTH()WORKER? ? OR AIDE? ? OR HEALTH()ADVISOR? ? OR HEALTH()WORKER? ? OR HEALTH()ADVOCATE? ? OR HEALTH()PARAPROFESSIONAL? ? OR COMMUNITY()HEALTH()REPRESENTATIVE? ? OR OUTREACH()WORKER? ? OR PATIENT()NAVIGATOR? ? OR PROMOTORA OR PROMOTORAS OR EMBAJADOR OR EMBAJADORES OR CONSEJERA OR CONSEJERAS OR VOLUNTEER? OR HEALTH()VOLUNTEER? OR COMMUNITY()MEMBER? ? OR COMMUNITY()VOLUNTEER? ? OR HEALTH()AUXILIARIES OR COMMUNITY()CARE()COORDINATOR? ? OR LAY()HEALTH()ADVISOR? ? OR COMMUNITY()HEALTH()AIDE? ? OR HEALTH()AGENT? ? OR PEER()HEALTH()PROMOTER? ? OR PEER()COUNSELOR? ? OR PEER()HEALTH()WORKER? ? OR PEER()VOLUNTEER? ? OR COMMUNITY()HEALTH()PERSONNEL OR COMMUNITY()PROMOTER? ?

S2 HYPERTENSION OR BLOOD()PRESSURE OR CHOLESTEROL OR DIABETES OR OBESITY OR PHYSICAL()ACTIVITY OR TOBACCO OR NUTRITION OR DIET OR ALCOHOL OR ASPIRIN OR ADHERENCE OR COMPREHENSIVE()CVD()RISK()REDUCTION? ? OR CHRONIC()DISEASE? ? OR CARDIOVASCULAR()DISEASE? ? OR CORONARY()HEART()DISEASE? ? OR ISCHEMIC OR CORONARY()ARTERY()DISEASE? ? OR HEART()DISEASE? ? OR HEART()ATTACK? ? OR MYOCARDIAL()INFARCTION? ? OR STROKE OR STROKES OR HEART()FAILURE OR CEREBROVASCULAR()DISEASE? ? OR ANGINA

S3 S1 AND S2

Database: PubMed (NLM)**Date Searched: 8/26/2013****Results: 5263****Search Strategy:**

("Hypertension"[Mesh] OR "Blood Pressure"[Mesh] OR "Hypercholesterolemia"[Mesh] OR "Cholesterol"[Mesh] OR "Diabetes Mellitus"[Mesh] OR "Diabetes Complications"[Mesh] OR "Obesity"[Mesh] OR "Tobacco Use Cessation Products"[Mesh] OR "Tobacco"[Mesh] OR "Tobacco Products"[Mesh] OR "Tobacco Use Cessation"[Mesh] OR "Tobacco, Smokeless"[Mesh] OR "Tobacco Use Disorder"[Mesh] OR "Tobacco Smoke Pollution"[Mesh] OR "Smoking"[Mesh] OR "Nutrition Policy"[Mesh] OR "Nutrition Therapy"[Mesh] OR "Nutritional Status"[Mesh] OR "Nutritional Sciences"[Mesh] OR "Elder Nutritional Physiological Phenomena"[Mesh] OR "Diet"[Mesh] OR "Alcohol Drinking"[Mesh] OR "Alcoholic Beverages"[Mesh] OR "Alcoholism"[Mesh] OR "Ethanol"[Mesh] OR "Aspirin"[Mesh] OR "Guideline Adherence"[Mesh] OR "Medication Adherence"[Mesh] OR "Patient Compliance"[Mesh] OR "Chronic Disease"[Mesh] OR "hypertension"[Title/Abstract]

OR

"blood pressure"[Title/Abstract] OR "cholesterol"[Title/Abstract] OR "hypercholesterol"[Title/Abstract] OR "hypercholesterolemia"[Title/Abstract] OR "diabetes"[Title/Abstract] OR diabetic[Title/Abstract] OR "diabetics"[Title/Abstract] OR "obese"[Title/Abstract] OR "obesity"[Title/Abstract] OR "physical activity" OR "tobacco" OR "nutrition"[Title/Abstract] OR "diet"[Title/Abstract] OR "diets"[Title/Abstract] OR "dieting"[Title/Abstract] OR "alcohol"[Title/Abstract] OR "aspirin"[Title/Abstract] OR adherence[Title/Abstract] OR "cardiovascular disease"[Title/Abstract] OR "cardiovascular diseases"[Title/Abstract] OR "comprehensive CVD risk reduction"[Title/Abstract] OR "comprehensive cardiovascular disease risk reduction"[Title/Abstract] OR "chronic disease"[Title/Abstract] OR "chronic diseases"[Title/Abstract] OR "coronary heart disease"[Title/Abstract] OR "coronary heart diseases"[Title/Abstract] OR "ischemic"[Title/Abstract] OR "coronary artery disease"[Title/Abstract] OR "coronary artery diseases"[Title/Abstract] OR "heart disease"[Title/Abstract] OR "heart diseases"[Title/Abstract] OR "heart attack"[Title/Abstract] OR "heart attacks"[Title/Abstract] OR "myocardial infarction"[Title/Abstract] OR "myocardial infarctions"[Title/Abstract] OR "stroke"[Title/Abstract] OR "strokes"[Title/Abstract] OR "heart failure"[Title/Abstract] OR "cerebrovascular disease"[Title/Abstract] OR "cerebrovascular diseases"[Title/Abstract] OR "cerebrovascular event"[Title/Abstract] OR "cerebrovascular events"[Title/Abstract] OR "angina"[Title/Abstract] OR "Coronary Artery Disease"[Mesh] OR "Coronary Disease"[Mesh] OR "Ischemia"[Mesh] OR "Ischemic Preconditioning, Myocardial"[Mesh] OR "Ischemic Attack, Transient"[Mesh] OR "Hypoxia-Ischemia, Brain"[Mesh] OR "Myocardial Ischemia"[Mesh] OR "Heart Diseases"[Mesh] OR "Myocardial Infarction"[Mesh] OR "Stroke"[Mesh] OR "Cerebrovascular Disorders"[Mesh] OR "Basal Ganglia Cerebrovascular Disease"[Mesh] OR "Angina Pectoris"[Mesh] OR "Hypercholesterolemia"[Mesh])

AND

("Community Health Workers"[Mesh] OR "community health worker"[Title/Abstract] OR "community health workers"[Title/Abstract] OR "health advisor"[Title/Abstract] OR "health advisors"[Title/Abstract] OR "health worker"[Title/Abstract] OR "health workers"[Title/Abstract] OR "health advocate"[Title/Abstract] OR "health advocates"[Title/Abstract] OR "health paraprofessional"

[Title/Abstract] OR "health paraprofessionals"[Title/Abstract] OR "community health representative"[Title/Abstract] OR "community health representatives"[Title/Abstract] OR "outreach worker"[Title/Abstract] OR "outreach workers"[Title/Abstract] OR "lay health worker"[Title/Abstract] OR "lay health workers"[Title/Abstract] OR "patient navigator"[Title/Abstract] OR "patient navigators"[Title/Abstract] OR "promotora"[Title/Abstract] OR "promotoras"[Title/Abstract] OR "embajadores"[Title/Abstract] OR "embajadora"[Title/Abstract] OR "embajadoras"[Title/Abstract] OR "embajador"[Title/Abstract] OR "consejera"[Title/Abstract] OR "consejeras"[Title/Abstract])) OR ("lady health workers"[Title/Abstract] OR "lady health worker"[Title/Abstract] OR "peer health promoter"[Title/Abstract] OR "peer health promoters"[Title/Abstract] OR "community care coordinator"[Title/Abstract] OR "community care coordinators"[Title/Abstract] OR "community health personnel"[Title/Abstract] OR "community promoter"[Title/Abstract] OR "community promoters"[Title/Abstract] OR "community member"[Title/Abstract] OR "community members"[Title/Abstract] OR "health volunteer"[Title/Abstract] OR "health volunteers"[Title/Abstract] OR "health volunteering"[Title/Abstract] OR "community volunteer"[Title/Abstract] OR "community volunteers"[Title/Abstract] OR "health auxiliaries"[Title/Abstract] OR "lay health advisor"[Title/Abstract] OR "lay health advisors"[Title/Abstract])) OR ("community health aide"[Title/Abstract] OR "community health aides"[Title/Abstract] OR "health agent"[Title/Abstract] OR "health agents"[Title/Abstract] OR "peer health promoter"[Title/Abstract] OR "peer health promoters"[Title/Abstract] OR "peer counselor"[Title/Abstract] OR "peer counselors"[Title/Abstract] OR "peer health"[Title/Abstract] OR "peer health worker"[Title/Abstract] OR "peer health workers"[Title/Abstract] OR "peer volunteer"[Title/Abstract] OR "peer volunteers"[Title/Abstract] OR "barefoot doctor"[Title/Abstract] OR "barefoot doctors"[Title/Abstract] OR "Voluntary Workers"[Mesh] OR (((("care team"[title/abstract] OR "community health service"[title/abstract] or "community health services"[title/abstract] OR "adherence support"[title/abstract] OR "compliance support"[title/abstract] OR "community capacity"[title/abstract] OR "community development"[title/abstract] OR "community organizer"[title/abstract] OR "community organizers"[title/abstract] OR "cultural mediation"[title/abstract] OR "culturally appropriate information"[title/abstract] OR "supporting compliance"[title/abstract]) OR "culturally appropriate"[title/abstract]) OR ("culturally sensitive"[title/abstract] or "cultural sensitivity"[title/abstract]))

AND

(English[lang])

Database: Sociological Abstracts (ProQuest)

Date Searched: 8/20/2013

Results: 624

Search Strategy:

S1 (community health worker OR community health workers OR community health aide OR community health aides OR health advisor OR health advisors OR health worker OR health workers OR health advocate OR health advocates OR health paraprofessional OR health paraprofessionals OR community health representative OR community health representatives or outreach worker OR outreach workers OR patient navigator OR patient navigators OR promotora OR promotoras OR embajador OR embajadores OR consejera OR consejeras) AND (Hypertension OR blood pressure OR cholesterol OR diabetes OR obesity OR physical activity OR tobacco OR nutrition OR diet OR alcohol OR

aspirin OR adherence OR comprehensive CVD risk reduction OR chronic disease OR cardiovascular disease OR cardiovascular diseases)

S2 (Hypertension OR blood pressure OR cholesterol OR diabetes OR obesity OR physical activity OR tobacco OR nutrition OR diet OR alcohol OR aspirin OR adherence OR comprehensive CVD risk reduction OR chronic disease OR cardiovascular disease OR cardiovascular diseases) AND (Team-based care OR integrated care OR coordinated care OR collaborative care OR primary care teams OR primary care team OR navigator OR liaison OR screening OR education OR outreach OR home visits OR enroll OR community organizer OR community development OR health advocacy OR counseling OR self-management OR health behavior change OR lifestyle modification)

S3 (Team-based care OR integrated care OR coordinated care OR collaborative care OR primary care teams OR primary care team OR navigator OR liaison OR screening OR education OR outreach OR home visits OR enroll OR community organizer OR community development OR health advocacy OR counseling OR self-management OR health behavior change OR lifestyle modification)

S4 (Outcome Assessment* OR Treatment Outcome* OR Process Assessment* OR Fatal Outcome* OR effectiveness* OR evaluation*)

S5 S1 AND S2 AND S3 AND S4

Name of Database: SSRN; 2 Results

Date Searched: 8/24/2013

Search Strategy:

"Community Health Workers" hypertension

"Community Health Workers" "cardiovascular disease"

Name of Database: WorldCat; 30 Results

Date Searched: 8/24/2013

Search Strategy:

"Community Health Workers" hypertension

"Community Health Workers" "cardiovascular disease"

Search Strategy - Economic Review

This literature search was performed to find studies on the economics of interventions engaging community health workers for the prevention of cardiovascular disease, prevention of diabetes, and management of diabetes.

Ten bibliographic databases were searched during August 2016, using the terms listed below. The databases searched were: CINAHL, Cochrane, the Centre for Reviews and Dissemination (CRD-York), EconLit, Google Scholar, NTIS, PubMed, Sociological Abstracts, SSRN, and WorldCat. Publications listed from inception of databases to August, 2016 were covered, and the types of documents retrieved by the search included journal articles, books, book chapters, reports, and conference papers. In

addition, reference lists of included studies were screened and subject matter experts were consulted for additional studies that may have been missed.

Search terms and strategies were adjusted for each database, based on controlled and uncontrolled vocabularies and software.

Community Guide: Cardiovascular Diseases – Community Health Workers

Database: CINAHL (EBSCOHost)

Date Searched : 8/8/2016

Results: 2463

Search Strategy:

S5 S1 and S2 and S3 and S4

S4 (TX("team-based care" OR "integrated care" OR "coordinated care" OR "collaborative care" OR "primary care team" OR "primary care teams" OR navigator* OR liaison* OR screening* OR education* OR outreach* OR "home visit" OR "home visits" OR "home visiting" OR enroll* OR "community organizer" OR "community development" OR "health advocacy" OR "counseling" OR "self-management" OR "health behavior change" OR "behavior changes" OR "changed behavior" OR "changing behavior" OR "changed behaviors" OR "changed behavior" OR "changing behavior" OR "changed behaviors" OR "changing behaviors" OR "lifestyle modification" OR "lifestyle modifications" OR "modified lifestyle" OR "modified lifestyles") OR MH "Life Style Changes" OR MH "Counseling+" OR MH "Home Visits" OR MH Education+" OR MH "Health Screening+" OR MH "Multidisciplinary Care Team+" OR MH "Health Care Delivery, Integrated")

S3 (TX("hypertension" OR "blood pressure" OR cholesterol* OR "diabetes" OR diabetic* OR "obese" OR "obesity" OR "physical activity" OR "tobacco" OR "nutrition" OR "diet" OR "diets" OR "dieting" OR alcohol* OR "aspirin" OR adher* OR "cardiovascular disease" or "cardiovascular diseases" or "comprehensive CVD risk reduction" OR "comprehensive cardiovascular disease risk reduction" OR "chronic disease" OR "chronic diseases") OR MH "Chronic Disease" OR MH "Patient Compliance+" OR MH "Medication Compliance" OR MH "Aspirin" OR MH "Alcoholic Intoxication" OR MH "Alcoholism" OR MH "Alcohol Rehabilitation Programs+" OR MH "Ethanol+" OR MH "Alcohol-Induced Disorders, Nervous System+" OR MH "Diet+" OR MH "Geriatric Nutrition" OR MH "Infant Nutrition+" OR MH "Child Nutrition" OR MH "Adolescent Nutrition" OR MH "Nutrition+" OR MH "Smoking Cessation Programs" OR MH "Smoking Cessation" OR MH "Smoking+" OR MH "Tobacco+" OR MH "Physical Activity" OR MH "Exercise+" OR MH "Obesity, Morbid" OR MH "Obesity" OR MH "Diabetes Mellitus+" OR MH Hypercholesterolemia" OR MH "Cholesterol+" OR MH "Hypertension+")

S2 (TX("Outcome Assessment Health Care" OR "Treatment Outcome" OR "Outcome and Process Assessment Health Care" OR "Fatal Outcome" OR "effectiveness" OR "effective" OR "evaluation" OR "evaluations") OR MH "Fatal Outcome" OR MH "Outcome Assessment" OR MH "Treatment Outcomes+" OR MH "Evaluation")

S1 (TX("community health worker" OR "community health workers" OR "health advisor" OR "health advisors" OR "health worker" OR "health workers" OR "health advocate" OR "health advocates" OR "health paraprofessional" OR "health paraprofessionals" OR "community health representative" OR

"community health representatives" OR "outreach worker" OR "outreach workers" OR "lay health worker" OR "lay health workers" OR "patient navigator" OR "patient navigators" OR promotora OR promotoras OR embajadores OR "embajadora" OR "embajadoras" OR "embajador" OR consejera OR consejeras) OR MH "Community Health Workers"

Database: Cochrane

Date Searched: 8/5/2016

Results: 1862

Search Strategy:

#1 community health worker or community health workers or community health aide or community health aides or health advisor or health advisors or health worker or health workers or health advocate or health advocates or health paraprofessional or health paraprofessionals or community health representative or community health representatives or outreach worker or outreach workers or patient navigator or patient navigators or promotora or promotoras or embajador or embajadores or consejera or consejeras:ti,ab,kw [Word variations have been searched]

#2 Hypertension or blood pressure or cholesterol or diabetes or obesity or physical activity or tobacco or nutrition or diet or alcohol or aspirin or adherence or comprehensive CVD risk reduction or chronic disease or cardiovascular disease or cardiovascular diseases:ti,ab,kw [Word variations have been searched]

#3 #1 and #2

#4 Team-based care or integrated care or coordinated care or collaborative care or primary care teams or navigator or liaison or screening or education or outreach or home visits or enroll or community organizer or community development or health advocacy or counseling or self-management or health behavior change or lifestyle modification or Team-based care or integrated care or coordinated care or collaborative care or primary care teams or navigator or liaison or screening or education or outreach or home visits or enroll or community organizer or community development or health advocacy or counseling or self-management or health behavior change or lifestyle modification:ti,ab,kw [Word variations have been searched]

#5 #3 and #4

Database: CRD-York <http://www.york.ac.uk/inst/crd/>

Date Searched: 5/27/2015

Results: 131

Search Strategy:

Any Field

community health worker* or community health aide* or health advisor* or health worker* or health advocate* or health paraprofessional* or community health representative* or outreach worker* or lay health worker* or patient navigator* or promotora* or embajador* or consejer*

AND

Any Field

hypertension or blood pressure or cholesterol* or hypercholesterol* or diabet* or obes* or exercise or physical activit* or tobacco or smoking or smoker* or nutrition* or diet* or alcohol* or aspirin or adhere* or cvd or cardiovascular or chronic

Database: EconLit (EBSCOHost)

Date searched: 8/5/2016

Results: 125

Search Strategy:

S5 s1 and s2 and s3 and s4

S4 "team-based care" OR "integrated care" OR "coordinated care" OR "collaborative care" OR "primary care team" OR "primary care teams" OR navigator* OR liaison* OR screening* OR education* OR outreach* OR "home visit" OR "home visits" OR "home visiting" OR enroll* OR "community organizer" OR "community development" OR "health advocacy" OR "counseling" OR "self-management" OR "health behavior change" OR "behavior changes" OR "changed behavior" OR "changing behavior" OR "changed behaviors" OR "changing behaviors" OR "lifestyle modification" OR "lifestyle modifications" OR "modified lifestyle" OR "modified lifestyles"

S3 "hypertension" OR "blood pressure" OR cholesterol* OR "diabetes" OR diabetic* OR "obese" OR "obesity" OR "physical activity" OR "tobacco" OR "nutrition" OR "diet" OR "diets" OR "dieting" OR alcohol* OR "aspirin" OR adher* OR "cardiovascular disease" OR "cardiovascular diseases" OR "comprehensive CVD risk reduction" OR "comprehensive cardiovascular disease risk reduction" OR "chronic disease" OR "chronic diseases"

S2 "Outcome Assessment Health Care" OR "Treatment Outcome" OR "Outcome and Process Assessment Health Care" OR "Fatal Outcome" OR "effectiveness" OR "effective" OR "evaluation" OR "evaluations"

S1 "community health worker" OR "community health workers" OR "health advisor" OR "health advisors" OR "health worker" AND "health workers" OR "health advocate" OR "health advocates" OR "health paraprofessional" OR "health paraprofessionals" OR "community health representative" OR "community health representatives" OR "outreach worker" OR "outreach workers" OR "lay health worker" OR "lay health workers" OR "patient navigator" OR "patient navigators" OR promotora OR promotoras OR embajadores OR "embajadoras" OR "embajador" OR consejera OR consejeras

Database: Google

Date Searched: 8/9/2016

Results: 28

Search Strategy:

"health advisors" +hypertension

“community health workers” +cardiovascular

“community health workers” +hypertension

Database: NTIS (Dialog File 6)

Date Searched: 8/8/2016

Results: 716

Search Strategy:

S1 COMMUNITY()HEALTH()WORKER? ? OR AIDE? ? OR HEALTH()ADVISOR? ? OR HEALTH()WORKER? ? OR HEALTH()ADVOCATE? ? OR HEALTH()PARAPROFESSIONAL? ? OR COMMUNITY()HEALTH()REPRESENTATIVE? ? OR OUTREACH()WORKER? ? OR PATIENT()NAVIGATOR? ? OR PROMOTORA OR PROMOTORAS OR EMBAJADOR OR EMBAJADORES OR CONSEJERA OR CONSEJERAS OR VOLUNTEER? OR HEALTH()VOLUNTEER? OR COMMUNITY()MEMBER? ? OR COMMUNITY()VOLUNTEER? ? OR HEALTH()AUXILIARIES OR COMMUNITY()CARE()COORDINATOR? ? OR LAY()HEALTH()ADVISOR? ? OR COMMUNITY()HEALTH()AIDE? ? OR HEALTH()AGENT? ? OR PEER()HEALTH()PROMOTER? ? OR PEER()COUNSELOR? ? OR PEER()HEALTH()WORKER? ? OR PEER()VOLUNTEER? ? OR COMMUNITY()HEALTH()PERSONNEL OR COMMUNITY()PROMOTER? ?

S2 HYPERTENSION OR BLOOD()PRESSURE OR CHOLESTEROL OR DIABETES OR OBESITY OR PHYSICAL()ACTIVITY OR TOBACCO OR NUTRITION OR DIET OR ALCOHOL OR ASPIRIN OR ADHERENCE OR COMPREHENSIVE()CVD()RISK()REDUCTION? ? OR CHRONIC()DISEASE? ? OR CARDIOVASCULAR()DISEASE? ? OR CORONARY()HEART()DISEASE? ? OR ISCHEMIC OR CORONARY()ARTERY()DISEASE? ? OR HEART()DISEASE? ? OR HEART()ATTACK? ? OR MYOCARDIAL()INFARCTION? ? OR STROKE OR STROKES OR HEART()FAILURE OR CEREBROVASCULAR()DISEASE? ? OR ANGINA

S3 S1 AND S2

Database: PubMed (NLM)

Date Searched: 8/5/2016

Results: 8480

Search Strategy:

("Hypertension"[Mesh] OR "Blood Pressure"[Mesh] OR "Hypercholesterolemia"[Mesh] OR "Cholesterol"[Mesh] OR "Diabetes Mellitus"[Mesh] OR "Diabetes Complications"[Mesh] OR "Obesity"[Mesh] OR "Tobacco Use Cessation Products"[Mesh] OR "Tobacco"[Mesh] OR "Tobacco Products"[Mesh] OR "Tobacco Use Cessation"[Mesh] OR "Tobacco, Smokeless"[Mesh] OR "Tobacco Use Disorder"[Mesh] OR "Tobacco Smoke Pollution"[Mesh] OR "Smoking"[Mesh] OR "Nutrition Policy"[Mesh] OR "Nutrition Therapy"[Mesh] OR "Nutritional Status"[Mesh] OR "Nutritional Sciences"[Mesh] OR "Elder Nutritional Physiological Phenomena"[Mesh] OR "Diet"[Mesh] OR "Alcohol Drinking"[Mesh] OR "Alcoholic Beverages"[Mesh] OR "Alcoholism"[Mesh] OR "Ethanol"[Mesh] OR "Aspirin"[Mesh] OR "Guideline Adherence"[Mesh] OR "Medication Adherence"[Mesh] OR "Patient Compliance"[Mesh] OR "Chronic Disease"[Mesh] OR "hypertension"[Title/Abstract] OR "blood pressure"[Title/Abstract] OR "cholesterol"[Title/Abstract] OR "hypercholesterol"

[Title/Abstract] OR "hypercholesterolemia"[Title/Abstract] OR "diabetes"[Title/Abstract] OR diabetic[Title/Abstract] OR "diabetics"[Title/Abstract] OR "obese"[Title/Abstract] OR "obesity"[Title/Abstract] OR "physical activity" OR "tobacco" OR "nutrition"[Title/Abstract] OR "diet"[Title/Abstract] OR "diets"[Title/Abstract] OR "dieting"[Title/Abstract] OR "alcohol"[Title/Abstract] OR "aspirin"[Title/Abstract] OR adherence[Title/Abstract] OR "cardiovascular disease"[Title/Abstract] OR "cardiovascular diseases"[Title/Abstract] OR "comprehensive CVD risk reduction"[Title/Abstract] OR "comprehensive cardiovascular disease risk reduction"[Title/Abstract] OR "chronic disease"[Title/Abstract] OR "chronic diseases"[Title/Abstract] OR "coronary heart disease"[Title/Abstract] OR "coronary heart diseases"[Title/Abstract] OR "ischemic"[Title/Abstract] OR "coronary artery disease"[Title/Abstract] OR "coronary artery diseases"[Title/Abstract] OR "heart disease"[Title/Abstract] OR "heart diseases"[Title/Abstract] OR "heart attack"[Title/Abstract] OR "heart attacks"[Title/Abstract] OR "myocardial infarction"[Title/Abstract] OR "myocardial infarctions"[Title/Abstract] OR "stroke"[Title/Abstract] OR "strokes"[Title/Abstract] OR "heart failure"[Title/Abstract] OR "cerebrovascular disease"[Title/Abstract] OR "cerebrovascular diseases"[Title/Abstract] OR "cerebrovascular event"[Title/Abstract] OR "cerebrovascular events"[Title/Abstract] OR "angina"[Title/Abstract] OR "Coronary Artery Disease"[Mesh] OR "Coronary Disease"[Mesh] OR "Ischemia"[Mesh] OR "Ischemic Preconditioning, Myocardial"[Mesh] OR "Ischemic Attack, Transient"[Mesh] OR "Hypoxia-Ischemia, Brain"[Mesh] OR "Myocardial Ischemia"[Mesh] OR "Heart Diseases"[Mesh] OR "Myocardial Infarction"[Mesh] OR "Stroke"[Mesh] OR "Cerebrovascular Disorders"[Mesh] OR "Basal Ganglia Cerebrovascular Disease"[Mesh] OR "Angina Pectoris"[Mesh] OR "Hypercholesterolemia"[Mesh])

AND

("Community Health Workers"[Mesh] OR "community health worker"[Title/Abstract] OR "community health workers"[Title/Abstract] OR "health advisor"[Title/Abstract] OR "health advisors"[Title/Abstract] OR "health worker"[Title/Abstract] OR "health workers"[Title/Abstract] OR "health advocate"[Title/Abstract] OR "health advocates"[Title/Abstract] OR "health paraprofessional"[Title/Abstract] OR "health paraprofessionals"[Title/Abstract] OR "community health representative"[Title/Abstract] OR "community health representatives"[Title/Abstract] OR "outreach worker"[Title/Abstract] OR "outreach workers"[Title/Abstract] OR "lay health worker"[Title/Abstract] OR "lay health workers"[Title/Abstract] OR "patient navigator"[Title/Abstract] OR "patient navigators"[Title/Abstract] OR "promotora"[Title/Abstract] OR "promotoras"[Title/Abstract] OR "embajadores"[Title/Abstract] OR "embajadora"[Title/Abstract] OR "embajadoras"[Title/Abstract] OR "embajador"[Title/Abstract] OR "consejera"[Title/Abstract] OR "consejeras"[Title/Abstract])) OR ("lady health workers"[Title/Abstract] OR "lady health worker"[Title/Abstract] OR "peer health promoter"[Title/Abstract] OR "peer health promoters"[Title/Abstract] OR "community care coordinator"[Title/Abstract] OR "community care coordinators"[Title/Abstract] OR "community health personnel"[Title/Abstract] OR "community promoter"[Title/Abstract] OR "community promoters"[Title/Abstract] OR "community member"[Title/Abstract] OR "community members"[Title/Abstract] OR "health volunteer"[Title/Abstract] OR "health volunteers"[Title/Abstract] OR "health volunteering"[Title/Abstract] OR "community volunteer"[Title/Abstract] OR "community volunteers"[Title/Abstract] OR "health auxiliaries"[Title/Abstract] OR "lay health advisor"[Title/Abstract] OR "lay health advisors"[Title/Abstract])) OR ("community health aide"[Title/Abstract] OR "community health aides"[Title/Abstract] OR "health agent"[Title/Abstract] OR "health agents"[Title/Abstract] OR "peer health promoter"[Title/Abstract] OR "peer health promoters"[Title/Abstract] OR "peer counselor"[Title/Abstract] OR "peer counselors"[Title/Abstract] OR "peer health"[Title/Abstract] OR "peer health worker"[Title/Abstract] OR "peer health workers"[Title/Abstract] OR "peer volunteer"

[Title/Abstract] OR "peer volunteers"[Title/Abstract] OR "barefoot doctor"[Title/Abstract] OR "barefoot doctors"[Title/Abstract] OR "Voluntary Workers"[Mesh] OR (((("care team"[title/abstract] OR "community health service"[title/abstract] or "community health services"[title/abstract] OR "adherence support"[title/abstract] OR "compliance support"[title/abstract] OR "community capacity"[title/abstract] OR "community development"[title/abstract] OR "community organizer"[title/abstract] OR "community organizers"[title/abstract] OR "cultural mediation"[title/abstract] OR "culturally appropriate information"[title/abstract] OR "supporting compliance"[title/abstract]) OR "culturally appropriate"[title/abstract]) OR ("culturally sensitive"[title/abstract] or "cultural sensitivity"[title/abstract]))

AND

(English[lang])

Database: Sociological Abstracts (ProQuest)

Date Searched: 8/8/2016

Results: 767

Search Strategy:

S1 (community health worker OR community health workers OR community health aide OR community health aides OR health advisor OR health advisors OR health worker OR health workers OR health advocate OR health advocates OR health paraprofessional OR health paraprofessionals OR community health representative OR community health representatives or outreach worker OR outreach workers OR patient navigator OR patient navigators OR promotora OR promotoras OR embajador OR embajadores OR consejera OR consejeras) AND (Hypertension OR blood pressure OR cholesterol OR diabetes OR obesity OR physical activity OR tobacco OR nutrition OR diet OR alcohol OR aspirin OR adherence OR comprehensive CVD risk reduction OR chronic disease OR cardiovascular disease OR cardiovascular diseases)

S2 (Hypertension OR blood pressure OR cholesterol OR diabetes OR obesity OR physical activity OR tobacco OR nutrition OR diet OR alcohol OR aspirin OR adherence OR comprehensive CVD risk reduction OR chronic disease OR cardiovascular disease OR cardiovascular diseases) AND (Team-based care OR integrated care OR coordinated care OR collaborative care OR primary care teams OR primary care team OR navigator OR liaison OR screening OR education OR outreach OR home visits OR enroll OR community organizer OR community development OR health advocacy OR counseling OR self-management OR health behavior change OR lifestyle modification)

S3 (Team-based care OR integrated care OR coordinated care OR collaborative care OR primary care teams OR primary care team OR navigator OR liaison OR screening OR education OR outreach OR home visits OR enroll OR community organizer OR community development OR health advocacy OR counseling OR self-management OR health behavior change OR lifestyle modification)

S4 (Outcome Assessment* OR Treatment Outcome* OR Process Assessment* OR Fatal Outcome* OR effectiv* OR evaluat*)

S5 S1 AND S2 AND S3 AND S4

Name of Database: SSRN

Date Searched: 8/5/2016

Results: 4

Search Strategy:

"Community Health Workers" hypertension

"Community Health Workers" "cardiovascular disease"

Name of Database: WorldCat

Date Searched: 8/9/2016

Results: 42

Search Strategy:

"Community Health Workers" hypertension

"Community Health Workers" "cardiovascular disease"

Review References

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Considerations for Implementation

The following considerations are drawn from studies included in the evidence review, the broader literature, and expert opinion. The Community Guide does not conduct systematic reviews of implementation.

- The 2013 ruling by the Centers for Medicaid Services (CMS) allows states to provide Medicaid reimbursement for USPSTF recommended preventive services when "recommended by a physician or other licensed practitioner" and delivered by a broad array of health professionals, including CHWs. Implementers of CHW interventions should consider state-specific regulations in accordance with this ruling when making decisions about CHW engagement in their organizations.
- The type of education and training provided to CHWs is important and should address collaboration with other healthcare providers.
- Supervision, performance feedback, and coaching should be provided for CHWs.
- Included studies suggested the following approaches to address implementation barriers:
 - Achieve community buy-in during the planning phase
 - Address issues related to gender and culture
 - Conduct periodic quality assurance checks to make sure interventions have been appropriately implemented and adapted to different cultures
- The [Community Health Worker Toolkit](#)  includes information state health departments can use to train and further build capacity for CHWs. It also provides resources CHWs can use in their communities. The site is maintained by CDC's Division for Heart Disease and Stroke Prevention.

CDC's Division for Heart Disease and Stroke Prevention developed [Best Practices for Cardiovascular Disease Prevention Programs: A Guide to Effective Health Care System Interventions and Community-Clinical Links](#) (<https://www.cdc.gov/dhdsp/pubs/guides/best-practices/index.htm>)  to help communities select and implement successful interventions. The guide summarizes the effectiveness and economic evidence behind eight strategies to prevent cardiovascular disease, including interventions engaging community health workers. For each strategy, the guide offers information on implementation, such as settings where the strategies have been successful, resources available to support implementation, and policy considerations. "Stories from the Field" feature specific settings where strategies have been successfully implemented.





Crosswalks

Healthy People 2020

 Healthy People 2020 includes the following objectives related to this CPSTF recommendation.

- [Access to Health Services, Objective 7 \(AHS-7\): \(Developmental\) Increase the proportion of persons who receive appropriate evidence-based clinical preventive services](#) (<https://www.healthypeople.gov/2020/topics->

[objectives/topic/Access-to-Health-Services/objectives#3986](#) 

- [Heart Disease and Stroke, Objective 5 \(HDS-5\): Reduce the proportion of persons in the population with hypertension \(https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke/objectives#4595\)](#) 
- [Heart Disease and Stroke, Objective 10 \(HDS-10\): Increase the proportion of adults with hypertension who meet the recommended guidelines \(https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke/objectives#4548\)](#) 
- [Heart Disease and Stroke, Objective 11 \(HDS-11\): Increase the proportion of adults with hypertension who are taking the prescribed medications to lower their blood pressure \(https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke/objectives#4554\)](#) 
- [Heart Disease and Stroke, Objective 12 \(HDS-12\): Increase the proportion of adults with hypertension whose blood pressure is under control \(https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke/objectives#4555\)](#) 

The Community Guide

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Important Disclosures

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Disclaimer: The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining

which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

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