

## The Impact of Community Health Workers on Cardiovascular Risk Reduction

The following is a synopsis of “Effectiveness of a Community Health Worker Cardiovascular Risk Reduction Program in Public Health and Health Care Settings,” published in the January 2013 issue of the *American Journal of Public Health*.



### What is already known on this topic?

A community health worker (CHW) is a public health worker who is trained to carry out health interventions in a community setting. A CHW serves as a liaison between the community and health care or social service system to facilitate access to care and improve the quality of care by incorporating the cultural values of the community. A CHW also may provide outreach, community education, informal counseling, social support, and advocacy.

Considerable evidence indicates that CHWs have a positive impact on the health of populations with high blood pressure—a leading risk factor for coronary heart disease (CHD)—and other chronic diseases. However, few studies have examined the effectiveness of CHW programs pertaining to CHD, the leading cause of death in the United States.

### What is added by this document?

The Colorado Department of Public Health and Environment implemented the Colorado Heart Healthy Solutions CHW

program in clinical and community settings with the goal of reducing risk for CHD among residents in 34 Colorado counties.

- 1. CHW Intervention:** 22 CHWs performed health screenings and assessed CHD risk factors and participants' health status during initial and follow-up visits; assessed participants' readiness to change and subsequently provided appropriate counseling and an action plan to promote healthy behaviors; and provided medical referrals and information about lifestyle resources.
- 2. Outreach Screening and Referral (OSCAR) Data System:** The OSCAR system stored individual and community data, guided the CHWs through the participant interview process, provided decision support to the CHWs, and included educational tools for participants.

3. **Health Care Provider Educational Detailing:** Each community had a designated physician champion to accept referrals from the CHW. These physicians received monthly updates about the program, which included brief CHD case studies interspersed with “fast facts” on recent developments in CHD preventive care.

At the follow-up screening (at least 3 months after initial screening), the program found significant improvements in the 10-year Framingham Risk Score (a predictor of cardiovascular events) as well as diet, weight, blood pressure, and cholesterol—especially among those with uncontrolled risk factors at baseline. Additionally, successful phone interaction with a CHW was associated with improvements in the 10-year Framingham Risk Score, especially for older men.

### What are the applications for these findings?

The success of this program illustrates that a statewide CHW intervention can:

- Feasibly be implemented, especially if it is centrally managed by local public health and health care professionals.

- Successfully operate within a community yet emphasize close ties to the health care system by integrating physicians as stakeholders for ongoing community-clinical linkages.
- Benefit from health information technology, such as the OSCAR system, that combines public health and primary care to provide administrative and point-of-service decision support.

### What are the implications for public health practice?

The findings from this study suggest that a CHW program incorporating both public health and the health care system can reduce overall CHD risk and individual CHD risk factors. Linking a decision-support tool like OSCAR to existing electronic health records systems at clinics can further facilitate the integration between public health and health care delivery.

Finally, incorporating CHWs as part of the health care team to provide self-management training to chronic disease patients where they live and work can help community health centers improve care delivery and become accredited patient-centered medical homes.

### Resources

Centers for Disease Control and Prevention

*Addressing Chronic Disease through Community Health Workers: A Policy and Systems-Level Approach*

[www.cdc.gov/dhdsdp/docs/chw\\_brief.pdf](http://www.cdc.gov/dhdsdp/docs/chw_brief.pdf)

*Fast Stats: Leading Causes of Death*

[www.cdc.gov/nchs/fastats/lcod.htm](http://www.cdc.gov/nchs/fastats/lcod.htm)

American Public Health Association

*Community Health Workers*

[www.apha.org/membergroups/sections/aphasections/chw](http://www.apha.org/membergroups/sections/aphasections/chw)

Framingham Heart Study

*Risk Score Profiles*

[www.framinghamheartstudy.org/risk/index.html](http://www.framinghamheartstudy.org/risk/index.html)

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*The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.*

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