Predictors of Major Heart Disease Risk Factors Among South Carolina WISEWOMAN Participants

The following is a synopsis of "Determinants of Major Cardiovascular Risk Factors Among Participants of the South Carolina WISEWOMAN Program, 2009–2012," published online in September 2014 in *Preventing Chronic Disease*.

What is already known on this topic?

Cardiovascular disease (CVD) is the leading cause of death among U.S. women, accounting for approximately one quarter of all deaths in this population in 2008. Hypertension (high blood pressure), hypercholesterolemia (high cholesterol), and diabetes mellitus (diabetes) are considered major risk factors for developing CVD. Although these conditions can be treated effectively if identified early, they may not be well controlled in the U.S. population, particularly in older women. In addition, women of lower socioeconomic status have higher rates of CVD, because they may live in environments that promote high-risk behavior. To provide effective case management and prevent further development of CVD risk factors, exploration of statewide CVD distribution and treatment patterns is critical.

What is added by this article?

The authors investigated the prevalence of uncontrolled hypertension, hypercholesterolemia, and diabetes and identified predictors of these risk factors among 3,572 first-time participants in the South Carolina Well-Integrated Screening and Evaluation for WOMen Across the Nation (SC WISEWOMAN) program during 2009–2012. The SC WISEWOMAN program provides under- and uninsured

women aged 40–64 years with screening for CVD risk factors and referral to lifestyle interventions that provide counseling on healthy diets, physical activity, and smoking cessation.

At initial screening, rates for two of the three CVD risk factors were significantly higher than those reported in the general South Carolina population (see Table 1). In addition, prevalence of untreated and uncontrolled CVD risk factors was high among SC WISEWOMAN participants (see Table 2).

Table 1. CVD Risk Factor Rates of SC WISEWOMAN Participants and General South Carolina Population

	Hypertension	Hypercholesterolemia	Diabetes
SC WISEWOMAN	21%	48%	25%
General SC population	34%	41%	11%

Table 2. Prevalence of Uncontrolled and Untreated CVD Risk Factors

	Hypertension	Hypercholesterolemia	Diabetes
Uncontrolled	34.7%	9.3%	21.0%
Untreated	15.6%	8.0%	4.0%

The greatest significant predictor of hypercholesterolemia was hypertension and vice versa; for diabetes, significant predictors were obesity, family history of diabetes, and hypercholesterolemia. Being black, obese, overweight, or aged 60 years or older were significant predictors of having at least one CVD risk factor. Being black was the only significant predictor of having more than one CVD risk factor.

What are the implications of these findings?

This was the first study to examine CVD risk factors among participants of the SC WISEWOMAN program. The analysis confirms that this particular screening program is in fact reaching higher-risk women in need of interventions designed to reduce risk for CVD through lifestyle changes. The findings highlight the need for approaches for preventing major CVD risk factors and for strategies to promote a healthy lifestyle, given the high rates of untreated and uncontrolled CVD risk factors among older women in South Carolina. The results also emphasize the importance of checking for other chronic conditions when screening for CVD, particularly among high-risk populations. The SC WISEWOMAN screening program is effectively identifying women at risk for CVD. Future research studies should consider evaluating the racial/ethnic disparity in the distribution and prediction of CVD risk factors among WISEWOMAN participants and the effectiveness of the recommended lifestyle interventions over time.

Resources

Centers for Disease Control and Prevention
About the WISEWOMAN Program
www.cdc.gov/wisewoman/about.htm

Behavioral Risk Factor Surveillance System: Prevalence Data and Data Analysis Tools
www.cdc.gov/brfss/data_tools.htm

National Heart, Lung, and Blood Institute
What Is High Blood Pressure?
www.nhlbi.nih.gov/health/health-topics/topics/hbp

Citation

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