



A Preliminary Analysis of the Effectiveness of Participation in Public Cholesterol Screenings on Behavior Recommendations and Compliance to Physical Referrals

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Background: Heart Disease and Stroke are the first and third leading causes of death in the Pennsylvania and in Chester County. Most of these deaths are due to coronary heart disease, which has several major modifiable risk factors, one being elevated blood cholesterol. Studies among people with heart disease have shown that lowering cholesterol can reduce the risk for having a heart attack, developing, and/or dying from heart disease. The National Cholesterol Education Program (2008) recommends that adults have their cholesterol levels checked at least every five years. The purpose of public cholesterol screenings is to identify individuals with elevated levels and refer them to medical providers for additional testing and treatment, especially for individuals who do not visit their physician for regular screenings or have never had their cholesterol tested.

Design/Methods: A 20 item questionnaire was distributed to 83 participants based on the following criteria: participated in a CCHD sponsored screening event in 2008, and received an elevated total cholesterol result (greater than 200 mg/dL) or abnormal HDL result (less than 40 mg/dL). Consent to participate in the follow-up survey was acquired during the registration process at the screening or upon receipt of the mailed survey. The completed surveys were scanned and the data was exported to SPSS for analysis. The questionnaire collected information on prior knowledge of cholesterol levels, physician visits, additional testing, and changes in eating habits or physical activity. All data besides the cholesterol results was considered self-reported.

Results: The response rate for the follow-up survey was 40% (n=25). More than half (60%) of respondents knew they had elevated cholesterol prior to participation in the screening. The screening identified approximately 15 participants with unknown elevated cholesterol. More than 50% of the respondents, who were referred to a physician, visited a physician and over 25% stated they were planning to see a physician. The most common reasons for failing to follow-up with a physician were managing the condition on my own, not concerned about results, or too busy. Of those that visited their physician and had a fasting lipid profile, 24% were prescribed drug therapy. This significant correlation may be obvious because an individual would be ordered to receive a fasting lipid profile or be prescribed medication only with physician intervention. More participants made changes to eating habits (76%) as opposed to changes to physical activity (44%) to modify cholesterol level. Almost half (46%) of subjects used dietary supplements such as omega three fatty acids from fish oils or cod liver oil, garlic, aspirin, and niacin. Those that modified physical activity level chose walking (40%) as the primary method.

Conclusion: The results demonstrate the absolute need for revisions to data collection forms and required follow-up information. Data instruments should collect information to help establish prevalence of CHD risk factors at baseline screening, document demographic characteristics, determine CHD risk factor modification after screening, and determine the proportion of participants newly identified with elevated cholesterol. Data reported through this analysis stated that 30% of the participants intended to manage the condition on their own, implying that education and counseling during the screening proves to be an integral part of subject compliance to a physician referral.