

Web-Based, Patient-Centered Approach to Cardiovascular Disease Risk Factor Management and Reduction

Cardiovascular disease is a leading cause of death and disability among American Indians. A major risk factor for cardiovascular disease is type 2 diabetes, which is two to four times more common among American Indians than White Americans. In addition, poor dietary and physical activity habits, non-adherence with prescribed therapies, and inadequate chronic disease management skills are behaviors that increase the risk for cardiovascular disease. However, few behavioral interventions have been implemented among Native populations to reduce the risk of cardiovascular disease. Recent innovations in home-based care can help people effectively manage risk factors for cardiovascular disease.

This project provides American Indian participants with a web-based chronic disease management program that is culturally tailored and based in their homes. Participants receive computer hardware, software, and training to help them to adhere to therapies prescribed to manage their diabetes, blood pressure, and cholesterol, improve their diet and exercise, and stop smoking. The program is managed remotely by a nurse trained in diabetes self-care.

To assess if this program works, we will examine how well participants' blood glucose levels are controlled. The cost-effectiveness of this intervention will be compared to other programs and strategies used to improve diabetes self-management and to prevent the onset of cardiovascular disease. If proven effective, this unique intervention can be a model for home-based care and cardiovascular disease prevention in other Native and non-Native rural settings.

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