

Maine Cardiovascular Health Program: Evaluation of a Worksite Pilot to Increase the Identification and Control of High Blood Pressure and High Cholesterol

A STORY FROM THE FIELD

Prepared for:



Maine Center for Disease Control and Prevention Maine Department of Health and Human Services

HMP is a collaborative effort among 28 local coalitions, the Maine DHHS (Maine CDC and Office of Substance Abuse) and DOE, supported primarily by the Fund for Healthy Maine with federal grants from US CDC, SAMSHA, and DOE.

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MARCH 2011

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Acknowledgements

Support for this evaluation was provided through the Maine CDC Cardiovascular Health Program and the US Centers for Disease Control and Prevention – Heart Disease and Stroke Prevention Division: Cooperative Agreement U50 DP000756-04.

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Executive Summary

Background

The Cardiovascular Health Program (MCVHP) within the Maine Center for Disease Control, Department of Health and Human Services developed a worksite pilot to improve the detection and control of high blood pressure and cholesterol. In January 2008, the MCVHP partnered with the Wellness Council of Maine to select and recruit two small, rural, manufacturing worksites already doing comprehensive worksite wellness that had a need and interest in addressing blood pressure and cholesterol control. The pilot was implemented from July 1, 2008 to June 28, 2010.

A comprehensive evaluation was developed to evaluate the interventions. Mixed methods (qualitative and quantitative) were used to conduct a process and outcome evaluation. Although outcome evaluation was beyond the scope of this two year pilot, outcome data were monitored. The primary data sources used were:

1. Key informant interviews with MCVHP and worksite staff regarding environmental changes made and facilitators and barriers to these changes.
2. Paper-based surveys with worksite employees. Areas of focus were knowledge of blood pressure and cholesterol numbers/status, actions to control high blood pressure and cholesterol, and knowledge of signs of heart attack and stroke and need to call 911.
3. Health Risk Assessment (HRA) data to monitor blood pressure and cholesterol control.

Although the pilot intervention focused more intensively on improving blood pressure control, pilot activities also addressed controlling high cholesterol and increasing knowledge of signs of heart attack and stroke. The evaluation summary that follows focuses on blood pressure control efforts and the overall pilot results are in the body of the report.

Results

Worksite Changes: Worksites participating in the pilot intervention were challenged to create a worksite culture where every employee would know their blood pressure numbers and have numerous opportunities to monitor their blood pressure. If blood pressure is high, employees would receive guidance, support and referral to control their blood pressure. The MCVHP provided technical assistance to the two worksites and assisted each employer in a yearly planning process to identify the mix of programs, policies, environmental changes, and behavior change initiatives to work toward this challenge. A brief description and the facilitators or barriers to implementing activities follows.

Educational Programs and Messages: Worksites provided monthly messaging in newsletters, bulletin boards, and pay stuffers. Many included a quiz with incentive (raffle for a \$10 gift card for a grocery store, gas or department store). Technical assistance provided by the MCVHP was critical to providing evidence-based educational messages. Worksites would not have had time or skills needed to gather or create the educational messages.

Worksite environmental changes: Worksites added on-site reliable, calibrated, appropriately sized electronic blood pressure measurement equipment. Staff at both worksites were trained in proper manual blood pressure measurement and control. Worksites promoted the availability of blood pressure monitoring for all employees, especially those at-risk for or with high blood pressure. Worksites communicated the expectation that all employees will know their blood pressure numbers and the importance of blood pressure control through:

- Regular health checkups from their primary care provider;
- Participation in Health Risk Appraisals provided by the worksite; or
- Worksite staff trained in proper blood pressure measurement.

The training provided to staff at each worksite was very important in the overall implementation of the pilot as it provided needed education in accurate high blood pressure measurement and control. Staff at both worksites said they were unaware of how much they did not know about blood pressure and that the training motivated them to implement activities and encourage staff to participate in activities.

Other facilitators to implementing environmental changes included having leadership support for introducing and maintaining environmental changes, having a history of implementing environmental changes such as walking paths at facilities and digital ticker displays with health messages, and providing worksites with specific examples of potential changes to the workplace environment.

Health Risk Appraisals (including biometric measures), Coaching and Follow-up: Worksites offered Health Risk Appraisals (HRAs) with appropriate follow-up and coaching once during the pilot. This activity was crucial to the overall implementation of the pilot. Both worksites noted that some employees were not engaged in the healthcare system. Without regular checkups with a healthcare provider, high blood pressure or high cholesterol is only picked up through the HRA. One challenge noted was that changes in HRA vendors from year to year make it difficult and sometimes impossible to compare biometric data.

Behavior Change Programs: Both worksites offered more behavior change programs (such as a blood pressure clinic, walking and healthy eating clubs, and weight loss programs). Use of incentives was essential for good participation. Working in teams increased participation and completion of programs.

The implementation of workplans was delayed due to the economic downturn and layoffs at both worksites. Some activities were cut. Despite the difficult economic environment, both worksites implemented most of the activities in their workplans and added a level of blood pressure assessment and control not seen in most employee health management programs. In addition to

onsite screening and encouragement to visit a health care provider, both worksites added automated and manual blood pressure assessment, at a very low cost.

Employee Changes: The vast majority of respondents at both worksites reported they knew their blood pressure numbers and there appears to be a slight increase in knowledge (Worksite A: 89% in 2008, 100% in 2009, and 92% in 2010; Worksite B: 94% in 2008, 95% in 2009, and 97% in 2010).

The percent of respondents reporting they were told on two or more different visits to a doctor or other health professional that they have high blood pressure was 37% in 2008, 30% in 2009, and 43% in 2010 at Worksite A, and 39% in 2008, 34% in 2009, and 33% in 2010 at Worksite B.

The vast majority of respondents with borderline or high blood pressure at both worksites reported they were taking the recommended actions based on JNC7 guidelines (The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/dash_atglance.pdf). Controlling weight, a recommended action by JNC 7 was only asked at baseline and removed for year 1 and 2 as worksites were not comfortable sharing these data as employee size decreased.

Although the numbers are small and did not reach statistical significance, there does appear to be an increase in the percent of respondents at Worksite A reporting that they are taking action to control their high blood pressure:

- Changing their eating habits (65% in 2008, 60% in 2009 and, 88% in 2010)
- Cutting down on salt (88% in 2008, 60% in 2009, and 100% in 2010)
- Reducing alcohol use to control their BP (67% in 2008, 56% in 2009, and insufficient data in 2010)
- Exercising (63% in 2008, 70% in 2009, and 88% in 2010)
- Taking prescribed medicine (59% in 2008, 70% in 2009, and insufficient data in 2010)

Although the numbers are small and did not reach statistical significance, there appears to be a slight decrease in the percent of respondents at Worksite B reporting that they are taking action to control their high blood pressure:

- Changing their eating habits (74% in 2008, 71% in 2009 and, 62% in 2010)
- Cutting down on salt (61% in 2008, 62% in 2009, and 58% in 2010)
- Reducing alcohol (67% in 2008, 39% in 2009, and 46% in 2010)
- Exercising (84% in 2008, 79% in 2009, and 67% in 2010) and
- Taking prescribed medicine (67% in 2008, 50% in 2009, and 46% in 2010)

This may be explained by the fact that through 2007, when they were self-insured, employees could earn up to 20% of the total health insurance premium (over \$1000) for managing their health risks. Only 6 months before we started collecting data, they became fully insured and removed this incentive program.

The percent of employees participating in the HRA that had blood pressure at goal (<140/90 mmHg) at Worksite A was 78% prior to the pilot and 80% at year one and at Worksite B was 87% prior to the pilot and 85% at year one.

Despite significant economic barriers that limited the potential effect of interventions, qualitative and quantitative evaluation methods suggest the MCVHP worksite pilot intervention to increase the prevention, detection and control of high blood pressure is a promising process. The interventions contributed to a cultural shift in which all employees were encouraged to know their blood pressure and cholesterol numbers and the importance of blood pressure and cholesterol control. The worksites offered a number of new initiatives that increase the likelihood that all employees are aware of their blood pressure and cholesterol, have the ability to monitor it if needed (blood pressure only), and receive support to control their high blood pressure or cholesterol. This approach is feasible for the majority of small businesses that do not have onsite occupational health, and who typically do not offer health assessments or screenings. It is recommended that the lessons learned from the pilot be spread through the Wellness Council of Maine and incorporated into Healthy Maine Works.

Program Background

Maine Cardiovascular Health Program

The Maine Cardiovascular Health Program (MCVHP) is located within the Maine Center for Disease Control and Prevention, Maine Department of Health and Human Services. The MCVHP partners with local organizations, schools, employers, health care providers, and state organizations to prevent cardiovascular disease death and disability in Maine. The MCVHP promotes a way of life that supports and includes preventing and controlling risk factors, especially high blood pressure and high blood cholesterol, and increasing timely care for heart attacks and strokes. To accomplish this, the MCVHP partners with state level organizations to provide education to Maine residents, and offer technical assistance, resources and training to community organizations, health care providers and employers.

Since 2001, the MCVHP has worked with employers and employer groups as a core strategy to improve the cardiovascular health of Maine citizens. The MCVHP has provided information and resources, offered training workshops, and developed resources and tools to guide employers in developing employee wellness programs that specifically address the prevention and management of cardiovascular disease risk factors.

In 2004, the Good Work Resource kit (<http://www.mainehearthealth.com/worksite-wellness/goodwork-resource-kit>) was developed to capture successful low or no-cost strategies used by Maine employers. Since then, more than 2000 Good Work kits have been distributed to Maine worksites. The MCVHP continues and expands its efforts with worksites to prevent heart disease and stroke risk factors through this pilot intervention that focuses specifically on improving the detection and control of high blood pressure.

Evaluation Overview

Evaluation Team

The Maine Center for Disease Control and Prevention (Maine CDC) has a multi-disciplinary, multi-year (July 1, 2010 to June 30, 2015) evaluation contract through the University of New England. (The Maine Center for Public Health was the evaluation contractor from July 1, 2005 to June 30, 2010.) The evaluation team consists of doctoral and masters prepared evaluators. The MCVHP leveraged resources by sharing this evaluation contract with other Maine CDC programs, allowing for a natural integration across programs.

Evaluation Plan

The process for developing the evaluation plan was a collaboration between the Worksite Specialist, Pilot Coordinator and Evaluator. The evaluation plan for the worksite systems

intervention followed the framework for evaluation recommended by the CDC in the publication, *Framework for Program Evaluation in Public Health* (1999). The goal of the evaluation was to conduct a comprehensive evaluation to determine whether this pilot intervention is a promising practice that should be spread throughout the state. For the purposes of this report, a promising practice is defined as an intervention exhibiting some evidence of impact or effectiveness and for which replication or transferability may be possible (US Centers for Disease Control and Prevention, Division of Heart Disease and Stroke Promising Practices Project, 2008)

The two-year evaluation plan was supplemented with the RE-AIM model for evaluating public health interventions that assesses five domains – Reach, Effectiveness, Adoption, Implementation and Maintenance (Glasgow, 2002; Glasgow et al., 1999) and evaluation work done by RTI on promising practices in heart disease and stroke prevention (Maine Center for Disease Control and Prevention, 2008). The evaluation plan was based on the intervention logic model and included evaluation questions by domain, indicators, data sources, how the data were analyzed, who conducted the analysis, and the time frame for analysis.

The evaluation included a process evaluation that focused on the quality and implementation of the intervention. The process evaluation was built upon with an outcome evaluation that assessed the achievement of expected outcomes. Failure to complete a process evaluation in conjunction with an outcome evaluation makes it difficult, if not impossible in the case of interventions that have never been evaluated, to determine whether failure to achieve desired outcomes is due to the fact that the intervention was ineffective in bringing about the desired effect or due to ineffective or incomplete implementation. Although the intervention evaluation included process and outcome evaluation, given the short, two year time-frame of the pilot, the evaluation focused more on process. Outcome data are limited to environmental and systems changes and health outcome data are only monitored. The primary purpose of the evaluation was to provide information to intervention stakeholders on whether the intervention was implemented as planned; whether the intervention was having the intended effects; ways the intervention could be improved; and which components of the intervention warranted spreading to other worksites through systems level initiatives.

The communication plan called for providing evaluation results and findings to the MCVHP by the evaluator on an ongoing basis. Evaluation results were documented at the end of each year and used to inform program planning and implementation and revisions of the evaluation plan. A draft written report was completed at the end of year 1 and updated at the end of the pilot intervention in year 2. The purpose of this evaluation report is to provide an in-depth look at the worksite pilot to implement environmental changes to improve the detection and control of high blood pressure. It is desired that the evaluation will be disseminated to national partners and counterparts and will contribute to the knowledge base of what is and is not a promising process or practice for worksite systems interventions to improve the control of high blood pressure. In addition, a summary or success story will be provided to worksites, funders and stakeholders and a presentation will be made at the MCVHP Stakeholder meeting.

Methods:

Mixed methods, qualitative and quantitative, were used to provide a comprehensive evaluation. Qualitative methods focused on process evaluation; key informant interviews conducted with MCVHP and worksite staff were the primary data source. These were conducted at baseline, the end of year one, and end of year two to gather information on how and in what ways the intervention was implemented, what were the facilitators and challenges of implementation, and perceived successes of the intervention.

Quantitative methods focused on process and outcome evaluation; employee surveys were the primary data source. Employee surveys were administered to gather information on health status; actions, self-efficacy and consumer engagement to control high blood pressure and high cholesterol; and awareness of signs of heart attack and stroke and need to call 911. Each survey was tailored to fit the worksites needs and were slightly different for each worksite. The worksites administered the surveys in 2008 to gather a baseline and were administered again at the end of year one, and end of year two to determine whether changes in knowledge, attitudes and practices occurred.

The evaluation involved the following six steps, shown in Table 1. A complete description of the evaluation plan including evaluation questions, indicators, data sources, responsibility and time frame for completion was developed with and reviewed by the MCVHP Worksite Specialist (Appendix A). The evaluation plan was updated as needed and used to guide the evaluation throughout the pilot.

Table 1. Key Steps in Evaluating the Maine Worksite High Blood Pressure and Cholesterol Pilot

Step ⁱ	Why It Is Important ⁱⁱ	What Was Done for the Worksite Pilot
1. Engage stakeholders	<p>Stakeholders must be engaged in the evaluation to ensure that their perspectives are understood. When stakeholders are not engaged, an evaluation might not address important elements of a program's objectives, operations, and outcomes. Meeting with key stakeholders to plan the evaluation is essential for determining what kind of evaluation (process and/or outcome) is feasible and for identifying all available data sources.</p> <p>Stakeholders include:</p> <ul style="list-style-type: none"> • Individuals and groups involved in program operations. • Individuals and groups served or affected by the program. • Primary users of the evaluation. 	<p>The evaluation began with meetings with MCPH evaluator and MCVHP CVH Specialist-Worksite to explain the evaluation and expectations for participation and learn about the Worksite Pilot (Jan 08).</p> <p>MCVHP Worksite Specialist, Coordinator and Evaluator met with pilot worksites to discuss work plan development and evaluation (July & Aug 2008, 2009 and 2010)</p>
2. Describe the program	<p>Program descriptions convey the mission and objectives of the program being evaluated. One method used to describe a program—a logic model—depicts the series of actions and causes expected to lead to desired outcomes.</p>	<p>A program logic model was drafted and shared with MCVHP staff to review and revise it for accuracy. The program logic model outlined the various steps for implementation and expected short-term, intermediate, and long-term</p>

Step ⁱ	Why It Is Important ⁱⁱ	What Was Done for the Worksite Pilot
		<p>outcomes. It was updated as needed.</p> <p>MCVHP Spec-W and Pilot Coordinator determined promising activities and strategies to achieve short - long-term objectives. These were presented to worksites to choose which to include in their workplan and implement. (Sept-Nov 2008 & 2009)</p>
<p>3. Focus the evaluation</p> <p>a. Design—develop key evaluation questions</p>	<p>Developing key evaluation questions provides a framework for the evaluation’s focus. Given time and resource constraints, prioritizing tasks that will be feasible to evaluate is important.</p>	<p>The evaluator met with the MCVHP CVH Spec-W to determine a list of key evaluation questions.</p> <p>Key evaluation questions were:</p> <ul style="list-style-type: none"> • What systemic and/or programmatic changes occurred as a result of pilot to increase the prevention and control of high blood pressure and cholesterol? • To what extent were employees being reached at each worksite by the pilot?
<p>3. (cont.)</p> <p>b. Develop an evaluation plan</p>	<p>An evaluation plan helps organize the evaluation by outlining the key evaluation questions, indicators by which to assess the questions, data sources to use, responsibilities for data collection, and timeline for data collection.</p>	<p>An evaluation plan was developed and served as a guide throughout the evaluation. The plan outlined evaluation questions by RE-AIM domain and included indicators, data sources, responsibility for data collection, and timeline for completion. Evaluation questions were reviewed and prioritized based on relevance and usefulness.</p>
<p>3. (cont.)</p> <p>c. Develop data collection instruments</p>	<p>Data collection instruments guide how data will be collected. They should be developed with and/or reviewed by the organization whose program is being evaluated to ensure feasibility. Types of instruments include surveys, interview guides, observation forms, and data tracking forms.</p>	<p>Data collection instruments for the evaluation included:</p> <ul style="list-style-type: none"> • Key Informant Interview guides for Worksite and MCVHP staff • Employee surveys
<p>4. Gather credible evidence</p>	<p>Data collection, quantitative or qualitative, provides a means to describe and assess the program. The type of data collection conducted depends on the data sources available. Sources of evidence in an evaluation are the persons, documents, or observations that provide information for the inquiry.</p>	<p>Data collection consisted of:</p> <ul style="list-style-type: none"> • Interviews with key worksite and MCVHP staff; • Employee paper-based surveys; and • Obtaining aggregate HRA data and summary data from program materials/publications.
<p>Justify conclusions</p>	<p>The evaluation conclusions are justified when they are linked to the evidence gathered and judged against agreed-upon values or standards set by the stakeholders. Data analysis, quantitative or qualitative, provides a means to assess and provide answers to the key evaluation questions.</p>	<p>The data collection instruments included the means to collect both quantitative and qualitative data.</p>

Step ⁱ	Why It Is Important ⁱⁱ	What Was Done for the Worksite Pilot
Ensure use and share lessons learned	Lessons learned in the course of an evaluation do not automatically translate into appropriate action. Reporting findings provides a way to describe the program, disseminate evaluation results, and provide recommendations to key stakeholders about future implementation and evaluation.	The evaluation was used by the MCVHP to inform planning and implementation efforts and by the Maine Council for Worksite Wellness to spread lessons learned to other worksites.

Pilot Intervention Description

Need

A meta-analysis of worksite interventions to improve employee cardiovascular health found that employers can yield a \$3 to \$6 return on investment for each dollar invested over a two to five year period. The most effective interventions provide sustained individual follow-up risk factor education and counseling and other interventions within the context of a comprehensive health-promotion program including 1) screening, health risk assessments, and referrals; 2) environmental supports for behavior change; 3) financial and other incentives; 4) policies that support healthy lifestyles, and 5) health education classes, workshops, medical self-care and support groups with goal setting.ⁱⁱⁱ

Another comprehensive review of the literature found that results from randomized trials suggest that providing individual risk reduction counseling for employees at high risk for cardiovascular disease as part of a comprehensive worksite health promotion program may be the critical component of these interventions.^{iv}

A worksite study in New York State found that worksite size was an independent predictor of health promotion supports with small (85-99 employees) and medium-small (100-199 employees) worksite reporting significantly fewer policy and environmental supports.^v

Development

Although much of the work done by the MCVHP contributed to the prevention of high blood pressure and high cholesterol, specific interventions and strategies to improve the detection and control of these cardiovascular disease risk factors appeared to be less frequently utilized. MCVHP specifically wanted to develop an intervention that focused on more convenient, frequent and accurate blood pressure measurement; consumer engagement and self-management; and consistent and frequent educational messaging to improve detection and control of high blood pressure and cholesterol.

Given the finding of New York State above, combined with the fact that 90% of Maine companies have fewer than 20 employees, 9% have between 20 and 99 employees and 1% has 100 or more employees (Critical Insights, 2009) and that Maine is a rural, low-income state, the MCVHP wanted to pilot the intervention in a small, rural, low-income worksite.

Logic Model

Logic models typically contain program inputs, activities, outputs and anticipated outcomes at three levels: short-term, intermediate and long-term. An intervention logic model was developed to reflect the intervention elements and to graphically show the relationship between activities and intended effects and depict the theory of change. (Appendix B.)

Goals, Objectives

The proposed pilot intervention goals, objectives are listed below, followed by the planned activities.

Overarching MCVHP Long-Term Objective: By June 2012, engage consumers to improve control of high blood pressure and cholesterol and increase the awareness of the signs and symptoms of heart attack and stroke, call 911 (CDC HDSP Indicators 1.3.3; 1.3.6; 1.6.2; 1.7.1 or 1.8.1; 2.3.2; 2.3.4; 2.6.1; 2.6.2; 2.6.3; 2.6.7; 2.8.1, 2.8.2 or 2.8.4; 3.1.5; 3.1.6; 3.4.1; 3.4.2)

Worksite Pilot Intervention Long-Term Objective: By June 2011, spread lessons learned through Wellness Council of Maine to other worksites to increase control of high blood pressure and cholesterol.

Worksite Pilot Intervention Long-Term Objective: By June 2010, increase the percentage of employees that are taking an active role in controlling blood pressure and cholesterol.

Worksite Pilot Intervention Supporting Objective: By June, 2009, implement at least one environmental change and four enhanced education programs at each worksite.

Worksite Pilot Intervention Supporting Objective: By June, 2008, partner with at least one employer group to develop, implement and evaluate a pilot intervention to improve the detection and control of high blood pressure and cholesterol at 2 to 5 worksites.

Activities

- Enhanced programs and educational materials and messaging
 - Provide consumer engagement, detection and control of high blood pressure and cholesterol, and signs & symptoms of a heart attack and stroke and need to call 911 in their employee education

- Professional training in proper blood pressure measurement and control
 - Human resources or safety and wellness staff trained by Blood Pressure Master Trainers

- Environmental changes
 - On-site calibrated and appropriately sized blood pressure measurement equipment
 - Emergency action plan
 - Workplace culture where everyone will know their blood pressure and cholesterol numbers either through their primary care practice, Health Risk Assessment (HRA) or worksite self-monitoring
 - Workplace culture where everyone will be encouraged to prevent and control high blood pressure and high cholesterol

- Risk factor screening, counseling and follow-up
 - Health Risk Assessment (HRA), biometric screening, coaching and referral as appropriate with a focus on blood pressure and cholesterol control, goal setting, and how to communicate with your health care provider

- Behavior change programs
 - Focus on therapeutic lifestyle changes and medication management to control high blood pressure and high cholesterol.

- Benefits
 - “Checklist of Successful Health Plan Approaches to Heart Disease and Stroke Prevention”

Evaluation Results for the Pilot Intervention

Inputs

The MCVHP partnered with the Wellness Council of Maine, a statewide organization that, since 2002, has provided small and large businesses with the tools necessary to change behaviours within their worksites to promote health and prevent disease. A membership with the Wellness Council of Maine gives worksites easy access to valuable health promotion resources, and guidance for implementing and sustaining a results-oriented worksite wellness program (<http://www.wellnesscouncilofmaine.org/>). The Wellness Council of Maine has over one hundred worksites as members and was well suited to assist the MCVHP to recruit two worksites underrepresented in public health efforts, yet with demonstrated success with worksite wellness. Two small, rural, manufacturing worksites were selected (names omitted to ensure privacy).

It was planned from the beginning of the pilot intervention that successful strategies and activities and the lessons learned from the pilot would be spread to other worksites through the Wellness Council of Maine. Additionally, promising strategies and lessons learned would be

incorporated into Healthy Maine Works, a statewide worksite initiative that uses the local public health infrastructure (Healthy Maine Partnerships) to assist worksites in implementing evidence-based strategies to improve employee health and prevent and control chronic disease.

Both worksites signed a Letter of Agreement listing the existing worksite wellness capacity needed and elements and requirements of the pilot intervention (Appendix C). The MCVHP provided technical assistance to the worksites to develop yearly workplans to address the pilot intervention requirements. Each worksite was able to tailor the workplan to fit the needs of their worksite.

Table 2 illustrates the steps taken regarding inputs needed to implement a worksite pilot to increase the detection and control of high blood pressure and cholesterol in two Maine worksites. The table explains why each step was important for program implementation and provides specific examples of how the MCVHP used these steps to successfully implement the Worksite Blood Pressure and Cholesterol Detection and Control Pilot.

Table 2. Inputs for Implementation

Step	Why It Is Important & How It Was Done	Lessons Learned
Identify key partners	<p>Partnerships are essential in working at the systems level or highest level possible of the social ecological model.</p> <p>The first step was determining the right business group to partner with to make a system change. After discussions with two potential partners, it was decided that the Wellness Council of Maine would be the best partner. A Letter of Agreement (LOA) was signed with the Council delineated responsibilities of the Council regarding the pilot.</p> <p>Partnerships are essential for choosing appropriate worksites, implementing the pilot, and sharing the findings with other worksites.</p> <p>The second step was to develop a list of possible worksites to participate in the pilot. This was based on the MCVHP's passed experience with worksite CVH interventions. A key criterion was that worksites needed to have essential elements of worksite wellness solidly in place. Two worksites stood out when this criterion was applied. The Council validated the choice of worksites.</p>	<p>Partnership models can vary depending on what is feasible in each state. For example, other states may partner with their Chamber of Commerce. Maine found its partnership with the Wellness Council of Maine to be a critical asset in ensuring intervention support and spread of lessons learned.</p>
Identify key staff and resources	<p>Having a designated person(s) to coordinate the intervention is essential for implementation.</p> <p>The Worksite Pilot required minimal staff time to implement; however, with worksites having limited time available, the designated Pilot Coordinator was vital to assisting worksites with implementation, such as assisting with the development of a work plan; providing resources and materials to worksites; and promoting and monitoring the activities through phone calls, e-mails, and in-person visits.</p>	<p>Develop a sustainability plan that outlines steps to maintain the intervention after the pilot has ended.</p> <p>Worksites commented that external support (e.g., technical assistance, financial, in-kind) is crucial to expand employee wellness. At this time, with the current economic downturn, it is unclear whether worksites will be able to continue their efforts after the Pilot.</p>

The Worksite Blood Pressure and Cholesterol Detection and Control Pilot was implemented with staff from the Cardiovascular Health Program within the Maine Center for Disease Control and Prevention, DHHS, the Maine Worksite Wellness Council and staff at the two worksite pilot sites. Table 3 lists the staff responsibilities and time requirements to complete this pilot. The costs of the program consist of MCVHP staff time and a \$3,750 stipend that was given to the two pilot worksites for the two years of the program.

Table 3. Staff Responsibilities Maine Worksite High Blood Pressure and Cholesterol Detection and Control Pilot

Team Member	Percent Time [Time/ Month]	Responsibilities
Program Manager*	1-2%	<ul style="list-style-type: none"> • Manage program implementation, program staff, and budget • Establish program goals and objectives for Worksite Blood Pressure and Cholesterol Pilot • Identify how Worksite Pilot can be utilized to help meet MCVHP goals and Healthy Maine Partnerships goals • Facilitate the partnership with the Wellness Council of Maine
CVH Specialist Worksite*	<5% [20 hrs/wk during development and 6 hrs/wk during implementation]	<ul style="list-style-type: none"> • Develop initial draft protocol and scope of work for pilot project • Meet with potential business group partners and identify pilot sites • Assist in development of tools and clarification of expectations to pilot sites • Supervise work of Pilot Coordinator to carryout implementation of project
Pilot Coordinator*	<10% [35 hrs/wk during development and 16 hrs/wk during implementation]	<ul style="list-style-type: none"> • Point of contact for worksites • Develop and distribute worksite resources/materials • Day-to-day program implementation • Track program implementation
Evaluator*	1-2%	<ul style="list-style-type: none"> • Program evaluation and data analysis • Annual draft evaluation report and final report
Worksite Leadership** (Operations Manager and HR Director)	1%	<ul style="list-style-type: none"> • Review/approve participation in project • Monitor status of project at quarterly intervals including attendance at meetings with Cardiovascular Health Program staff
Worksite Employee Wellness**	2-5% (1-2hrs/wk)	<ul style="list-style-type: none"> • Responsible for implementing activities on worksite action plan • Coordinates with Pilot Coordinator regarding data collection and technical assistance

* Maine Cardiovascular Health Program staff

** Worksite Staff

Methods:

Baseline in-person interviews were conducted with worksites participating in the pilot intervention to ensure knowledge and awareness of the interventions mission and objectives. Interviews were conducted again at the mid-point and end of the pilot to determine what inputs worksites felt were most critical to completion of the intervention. Interviews were conducted with the MCVHP Worksite Specialist at the mid-point and end of the pilot.

Results:

Key worksite staff was asked what most influenced their participation in the pilot project. Both worksites stated that recent national downturn in the economic environment is their businesses and their worksite wellness efforts. The financial incentive of the small grant associated with the pilot (\$7,500.00 for the two year funding period) was an important reason for both worksites to participate in the pilot. For one worksite, the pilot tied in very nicely with the worksite’s goals and health focus (blood pressure and cholesterol). For the other worksite, the pilot provided an opportunity for the worksite to revisit their wellness program that had recently become non-existent when their health insurance status changed. Table 4 provides results for evaluation questions related to inputs.

Table 4: Evaluation results for inputs

Evaluation Question	Results/Key Findings
What are the costs associated with implementing a pilot worksite BP and cholesterol control initiative?	It was felt by the MCVHP that the amount of money provided to the worksites was appropriate. The worksites felt the amount of funding was sufficient given the amount of work that was required to participate in the pilot.
What percent time does worksite staff spend on pilot activities?	One worksite felt that the amount of time staff spent on the pilot was appropriate. The other worksite felt that there was not enough time to work on pilot activities.

Additionally, the worksites were asked what they wanted to get out of the pilot to ensure that the MCVHP was aware of and would be able to meet their needs. Their responses included:

- Opportunity to figure out and pilot a wellness program that focuses on blood pressure and cholesterol
- Lower measurements for BP & Cholesterol
- Better health for employees
- Decrease in cost of health insurance premiums

Responses for how the worksite will know that the Pilot has been successful included:

- Timeframe of pilot (two years) will allow time to determine if have a solid ongoing wellness program is sustainable
- Will see improvement in BP & cholesterol
- Employee survey results will show improvements from baseline to mid-point to end of pilot
- Improved communication between employees and their health care providers

Activities and Implementation

Methods:

Implementation of the worksites workplans was monitored on a quarterly basis by the Pilot Coordinator and MCVHP Worksite Specialist. In addition, the Evaluator conducted annual in-person interviews with worksite staff. The interviews included questions on progress toward

workplans as well as additional questions on key successes, facilitators and barriers, potential confounders, and overall satisfaction with the pilot.

Results:

Overall, implementation of workplans was delayed due to the economic downturn and some activities were cut. Both worksites were required to lay off employees, one significantly (Worksite A). Additionally, this worksite had a mandatory shutdown for two months in year one and six months in year 2, halting all work on this pilot during the shutdown.

Despite the difficult economic environment, both worksites implemented most of the activities in their workplans. The activities implemented focused on employee education programs, worksite staff training, employee Health Risk Appraisals, employee behavior change programs, and worksite environmental changes. Each is described in more detail below along with the employee reach for each activity. Facilitators and barriers to implementation are listed if any were mentioned by the MCVHP or worksite staff during interviews.

Reach:

The number of employees at the time of recruitment (January 2008) was approximately 120 employees at Worksite A and 140 at Worksite B. At the beginning of the pilot (July 2008), the number of employees at Worksite A decreased to 88 and the number of employees at Worksite B had remained about the same. The economy took a considerable downturn in the fall of 2008. Both worksites, being in manufacturing, were impacted by the economic downturn and had fluctuations in the number of employees due to layoffs, one significantly. At the end of year one of the pilot (July 2009) Worksite A had decreased to 36 employees and Worksite B had 126 employees. During the winter months of 2010, Worksite A was down to 13 employees. At the end of the pilot (year two, July 2010) Worksite A had 25 and Worksite B had 132 employees (Table 5).

Table 5: Number of employees at baseline, end of year 1 and end of year 2

	Worksite A	Worksite B
Baseline (2008)	88	140
End of year 1 (2009)	36	126
End of year 2 (2010)	25	132

Table 6 illustrates the steps taken regarding activities and implementation of the pilot. The table explains why each step was important and provides specific examples of how the MCVHP used these steps to successfully implement the Worksite Blood Pressure and Cholesterol Detection and Control Pilot.

Table 6. Activities and Implementation

Step	Why It Is Important & How It Was Done	Lessons Learned
<p>Establish program goals and objectives</p>	<p>Clear goals and objectives will help outline how the program is developed and implemented and provide indicators for determining program effectiveness. Goals and objectives should be SMART: Specific, Measurable, Attainable, Realistic, and Timely.</p> <p>The MCVHP implemented the Worksite Pilot as one of several interventions or strategies to meet the following MCVHP objective:</p> <ul style="list-style-type: none"> • By June 2012, engage consumers to improve control of high blood pressure and cholesterol <p>The pilot specific objectives are:</p> <ul style="list-style-type: none"> • By June 2010, increase the percentage of employees that are taking an active role in controlling their high blood pressure and cholesterol. • By June, 2009, implement at least one environmental change and four enhanced education programs at each worksite. • By June, 2008, partner with at least one employer group to implement and evaluate a pilot intervention to improve the detection and control of high blood pressure and cholesterol at 2 to 5 worksites. <p>Worksite specific objectives were stated in the form of required elements and focused on implementing specific activities and adhering to the agreed upon workplan.</p>	<p>Outline SMART short-term and intermediate program objectives to help assess if the program is on target or if modifications may be necessary.</p> <p>Worksite A had significant experience writing SMART CVH objectives, the other less so. Many worksites will need assistance in writing SMART objectives. Both worksites had significant experience using Health Risk Appraisal (HRA) data to track progress towards health improvements. Many worksites will have neither the experience with nor the resources to conduct HRAs.</p>
<p>Develop workplan</p>	<p>Tailoring a workplan to the worksite is essential for implementation. What works in one worksite may not work in another.</p> <ul style="list-style-type: none"> • Sample worksite workplans were drafted based on current evidence-based worksite cardiovascular health practice: Toolkit of Successful Business Strategies to Prevent Heart Disease and Stroke, Division for Heart Disease and Stroke Prevention, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, US Department of Health and Human Services. • MCVHP staff met with worksites to discuss the workplans and assure that they met a minimum set of criteria before finalizing the annual work plan. 	<ul style="list-style-type: none"> • Staff must remain flexible in suggesting strategies based on best practice and how those strategies fit in to the “real world” of small business. • Staff needs to be in constant communication with the employer as there are multiple demands on their time and they need “friendly reminders” to keep the process moving forward. Allow 6-8 weeks from initial meeting to final approval of the work plan.

Educational Programs and Messages

Implementation/Progress: Both worksites were able to implement more educational programs and awareness messages than they were prior to the pilot. Both worksites provided monthly

messaging in newsletters, bulletin boards, and pay stuffers. Many education messages included a quiz on the topic for employees to complete and return for a raffle for a \$10 gift card for a grocery store, gas or department store). Topics covered in educational programs and messages included:

- How to talk w/your health care provider
- Cholesterol –what it is, how our bodies get it and what cholesterol does in the body, talk w/doctor about the information and how it applies to the employee
- Cholesterol - how to lower my cholesterol when it is high
- Blood pressure - what it is, and how blood pressure affects our bodies, talk with doctor about the information and how it applies to the employee
- Reducing sodium in your diet
- Exercising in the summer
- Signs & symptoms of a heart attack and need to call 911
- Signs & symptoms of a stroke and need to call 911

Reach: In theory, all employees received or were exposed to educational programs and activities. The reach was equal to the number of employees at the time of the program or activity, discussed above.

Facilitators: Worksite A listed the technical assistance provided by the MCVHP as critical to providing evidence-based educational messages. The worksite would not have had the time or skills necessary to gather or create the educational messages.

Worksite environmental changes

Implementation/Progress: Both worksites were trained by a Blood Pressure Master Trainer on proper blood pressure measurement and control. This was a new activity for both worksites. Both worksites reported that a cultural change occurred within the worksite over the course of the pilot. The cultural norm at the end of the pilot was that all employees will know their blood pressure numbers and know how to control their blood pressure. Prior to the pilot, the worksites had not given blood pressure control this level of focus. Following is a list of the types of the environmental changes that occurred.

- Reliable, calibrated, appropriately sized electronic blood pressure measurement equipment available at the worksite
- Staff trained in proper blood pressure measurement and control (3 staff at Worksite A and 4 staff at Worksite B)
- Promotion of the availability of blood pressure monitoring for all employees, especially those at-risk for or with high blood pressure.
- Expectation that all employees will know their blood pressure and cholesterol numbers and the importance of control through:
 - Regular health checkups from their primary care provider;
 - Participation in Health Risk Appraisals provided by the worksite; or
 - Worksite staff trained in proper blood pressure measurement.

Reach: In theory, all employees received or were exposed to worksite environmental changes. The reach was equal to the number of employees at the time of the program or activity, discussed above.

Facilitators: Both worksites mentioned that this training was very important in the overall implementation of the pilot as it provided needed education in accurate high blood pressure measurement and control. Staff at both worksites was unaware of how much they did not know about blood pressure. Staff felt the training increased their awareness of importance of controlling blood pressure. Both worksites mentioned that having leadership support is critical for introducing and maintaining environmental changes.

Health Risk Appraisals (including biometric measures), Coaching and Follow-up

Implementation/Progress: Worksites offered Health Risk Appraisals (HRAs) with appropriate follow-up during the pilot and provided coaching to decrease risks and control high blood pressure and high cholesterol.

Reach: Almost all employees participated in the HRAs, employees' spouses and dependents were also able to, and often did, participate in the HRAs.

Facilitators: Both worksites felt this activity was crucial to the overall implementation of the pilot. Both worksites noted that some employees were not as engaged in the health care system as they could be. Often health conditions such as high blood pressure and high cholesterol were only picked up through HRA. Worksite B also noted that there was a shortage of primary care providers in their region prior to the start of the pilot and for the first year of the pilot.

Barrier: One challenge that was noted was that HRA vendors are often changed from year to year to get the most cost effective vendor. This makes it difficult and sometimes impossible to compare biometric data from year to year.

Behavior Change Programs

Implementation/Progress: Both worksites were able to implement additional behavior change program than they were prior to the pilot. Most programs were eight to ten weeks in length and supported therapeutic lifestyle changes to prevent and control high blood pressure and high cholesterol such as dietary changes, increased physical activity, and weight control. Many of the behavior change programs provided incentives such as allowing employees to earn behavioral credit by turning in surveys and activity sheets at the end of the program. Both worksites had successfully offered smoking cessation programs prior to the pilot. Tobacco use was addressed in the HRAs. Behavior change programs completed included:

- “Why Weight” (weight loss or control)
- “Move & Improve” (increasing activity)
- “Warm Weather Wellness” (increasing activity in summer months)

- “Walking for a Healthier Heart” (using pedometer to increase walking)
- “Healthy Helpings” (eating 5 helpings of fruit/vegetables per day)
- “Tune Into Your Health” [medical self-care/disease management, Wellness Council of America (WELCOA) program, includes a pre and post assessment on high blood pressure, high cholesterol, managing medications, visiting your health care provider, calling 911 and what to do in an emergency]
- “Journey to Health” (healthy eating and physical activity)

Reach: Participation in the behavior change programs at Worksite A was between approximately 70% and 100%. Employees were often enrolled on teams to encourage and support one another in their behavior changes. Participation in the behavior change programs at Worksite B was between approximately 20% and 70%. Both male and female employees participated in behavior change programs – a change for Worksite B as men have not historically attended. One of the programs was so successful that it continued on for another 10 weeks. After that, people in the program formed their own peer support group and eat lunch together and walk together.

Facilitators: Both worksites mentioned that the use of incentives was essential for good participation in behavior change programs. Both worksites also found that working in teams increased participation in and, more importantly, increased employee completion of these programs. They also felt that it contributed to increased behavior change and created a healthy competition to engage in desired behaviors.

Table 7 provides results for evaluation questions related to implementation and activities.

Table 7: Evaluation results for implementation and activities

Evaluation Question	Results/Key Findings
What effect does the worksite CEO or President have on pilot participation?	On a scale of one to ten with one being “not at all important” and ten being “extremely important,” the support of the CEO for worksite wellness is seen as an eight and very important. At both worksites participating in the pilot, the CEOs had showed themselves to be very progressive in valuing employee health and the positive effect that employee health has on company function and profitability.
What effect does other key worksite staff have on pilot participation?	On a scale of one to ten with one being “not at all important” and ten being “extremely important,” the support of key worksite staff for worksite wellness is seen as a six or seven and important. At both worksites participating in the pilot, there was key staff with experience in employee health. Both worksites did not have an “Employee Wellness Director” and the staff person working on the pilot had many other responsibilities in addition to employee wellness. In hindsight, choosing a worksite that had a dedicated staff person for employee wellness may have improved the impact of the program. Unfortunately, very few worksites in Maine have the resources to have such a staff person.
What influenced the worksite(s) to participate in the pilot?	<p>The compensation provided by the MCVHP to offset the costs of participating in the pilot was a very important factor in influencing the worksites to participate in the pilot. Two other essential factors that influenced the worksite to participate were that the pilot was focusing on a health area (BP & cholesterol) that was of great importance to the worksite and that the strategies used were exemplary practice for worksite wellness.</p> <p>Both worksites stressed that the small financial stipend was a key influencing factor in participating in the pilot.</p>
How have worksites increased their capacity for prevention and control of BP and chol over the course of participating in the pilot?	<p>Both worksites developed a workplace culture where everyone was expected to know their blood pressure and cholesterol numbers either through their primary care provider, HRAs or worksite self-monitoring. One worksite has an on-site blood pressure clinic.</p> <p>Both worksites significantly increased their capacity, by virtue of creating environments that make it easy and convenient to get an accurate blood pressure measurement taken. Both sites have been challenged by the economic downturn, and thus have relatively low staff capacity, so the changes they have made are all that much more powerful.</p>
What were some of the successes your worksite had as a result of participating in the pilot?	<p>“I think it’s amazing that in the past year 100% of employee with high blood pressure have reduced their sodium intake to control their blood pressure.”</p> <p>“Since the blood pressure clinic, our employees with high blood pressure have gotten their blood pressure consistently down to less than 140/90. And for some of these employees it was really out of control.”</p> <p>“Since we’ve been focusing on blood pressure, one person made some big changes and was able to go off their blood pressure medication.”</p>

Outcomes

Methods:

Employee Surveys were developed to gather information on health status, actions to control high blood pressure and high cholesterol, self-efficacy, consumer engagement, and awareness of signs of heart attack and stroke and need to call 911. Each survey was tailored to fit the worksites needs. Therefore, surveys were slightly different for each worksite (see Appendix D and E).

The surveys were determined to be for public health practice and evaluation and did not have to go through an Internal Review Board process. No identifiers were used on the surveys and all attempts were made to ensure employee privacy.

The worksites administered the surveys in 2008 to gather a baseline and were administered again at the end of year one (2009), and end of year two (2010) to determine whether changes in knowledge, attitudes and practices occurred. The analysis of employee survey data is limited by a decrease in the number of employees at Worksite A and low response rates at worksite B (Table 8).

Worksite A administered the baseline survey in September 2008. Forty-seven of 88 employees completed the survey; 53% response rate. Worksite A administered the year one survey in August 2009. Thirty-three of 36 employees completed the survey; 92% response rate. Worksite A administered the year two survey in July 2010. Fourteen of 25 employees completed the survey; 56% response rate.

Worksite B administered the baseline survey in October 2008. Fifty-five of 140 employees completed the survey; 39% response rate. Worksite B administered the year one survey in September 2009. Sixty-one of 126 employees completed the survey; 48% response rate. The year two survey was administered in August 2010. Thirty-seven of Worksite B’s 132 employees completed the survey; 28% response rate.

Table 8: Employee survey response rates

	Baseline (2008)	Year 1 (2009)	Year 2 (2010)
	Number of respondents/Number of employees (Percent)		
Worksite A	47/88 (53%)	33/36 (92%)	14/25 (56%)
Worksite B	55/140 (39%)	61/126 (48%)	37/132 (28%)

The subsequent tables present the results from the various surveys for the two worksites. Some questions had two or fewer responses for some response categories. When this occurred, the data are collapsed among response categories for privacy reasons even though this is not desired evaluation practice.

Both worksites were located in rural, lower-income areas. Prior to participating in the pilot intervention, worksites provided the MCVHP with their Wellness Council of America (WELCOA) applications. Information regarding the worksites’ demographic characteristics (Table 9) was compiled from this information.

Table 9: Demographics of worksites participating in the pilot (January 2008)

	Worksite A	Worksite B
Number of employees	120	140
Median annual wages of hourly employees	\$28,500	\$22,880
Percentage of employees paid an hourly wage	95%	78%

Results:

Demographics

In all survey years:

- More than half of the respondents at Worksite A were ≥ 50 years old (52.3% in 2008, 59.4% in 2009, and 69.2% in 2010; Table 10a). Over 90% of respondents were male (Table 11a).
- The largest percent of the respondents at Worksite B were 35 to 49 years old (47.2% in 2008, 42.4% in 2009, and 47.2% in 2010; Table 10b). Over 50% of respondents were male (Table 11b).
- Based on 95% confidence intervals, there were no significant differences in age or gender between baseline and years one and two for either of the worksites.

Table 10a: Worksite A - Age distribution

	Worksite A (2008) n=44	Worksite A (2009) n=32	Worksite A (2010) n=13
Answer Options			
18-49 years old	47.7%	40.6%	30.8%
≥ 50 years old	52.3%	59.4%	69.2%

Table 10b: Worksite B: Age distribution

	Worksite B (2008) n=53	Worksite B (2009) n=59	Worksite B (2010) n=37
Answer Options			
18-34 years old	18.9%	18.6%	8.3%
35-49	47.2%	42.4%	47.2%
≥ 50 years old	34.0%	39.0%	44.4%

Table 11a: Worksite A - Sex distribution

	Worksite A (2008) n=43	Worksite A (2009) n=32	Worksite A (2010) n=13
Answer Options			
Male	90.7%	93.8%	Missing
Female	9.3%	6.3%	Missing

Table 11b: Worksite B - Sex distribution

Answer Options	Worksite B (2008) n=53	Worksite B (2009) n=59	Worksite B (2010) n=37
Male	54.7%	59.3%	51.5%
Female	45.3%	40.7%	48.5%

Health Status

In all survey years:

- Over 95% of the respondents at Worksite A reported their health to be either “excellent,” “very good” or “good,” (95.7% in 2008, 97.0% in 2009, and 100% in 2010; Table 12a). Over 55% of respondents reported their health was “About the same” compared to one year ago (54.4% in 2008, 54.5% in 2009, and 78.6% in 2010; Table 13a).
- Over 93% of the respondents at Worksite B reported their health to be either “excellent,” “very good” or “good,” (92.7% in 2008, 91.8% in 2009, and 97.3% in 2010; Table 12b). Over 64% of respondents reported their health was “about the same” compared to one year ago (74.5% in 2008, 63.9% in 2009, and 67.6% in 2010; Table 13b).

Table 12a: Worksite A - Self-reported health status

Answer Options	Worksite A (2008) n=47	Worksite A (2009) n=33	Worksite A (2010) n=14
Excellent, Very Good, Good	95.7%	97.0%	100.0
Fair, Poor	4.3%	3.0%	0.0

Table 12b: Worksite B - Self-reported health status

Answer Options	Worksite B (2008) n=55	Worksite B (2009) n=61	Worksite B (2010) n=37
Excellent, Very Good, Good	92.7%	91.8%	97.3%
Fair, Poor	7.3%	8.2%	2.7%

Table 13a: Worksite A - Self-reported health status (as compared to one year ago)

Answer Options	Worksite A (2008) n=47	Worksite A (2009) n=33	Worksite A (2010) n=14
Much better or somewhat better than one year ago	42.6%	45.5%	21.4%
About the same	57.4%	54.5%	78.6%
Somewhat worse or much worse than one year ago	0.0%	0.0%	0.0%

Table 13b: Worksite B - Self-reported health status (as compared to one year ago)

Answer Options	Worksite B (2008) n=55	Worksite B (2009) n=61	Worksite B (2010) n=37
Much better or somewhat better than one year ago	23.6%	27.9%	32.4%
About the same	74.5%	63.9%	67.6%
Somewhat worse or much worse than one year ago	1.8%	0.0%	0.0%

Blood Pressure

In all survey years, over 89% of Worksite A respondents reported they knew their blood pressure numbers (89.4% in 2008, 100% in 2009, and 92.3% in 2010; Table 14a) Sixty percent reported their blood pressure was normal.

In all survey years, over 94% of Worksite B respondents reported they knew their blood pressure numbers. Although the percent of respondents reporting they knew their numbers increased over the course of the pilot (94% in 2008, 95% in 2009, and 97% in 2010; Table 14b), this did not reach statistical significance. Seventy-two percent reported their blood pressure was normal.

Table 14a: Worksite A - knowledge of blood pressure numbers

Answer Options	Worksite A (2008) n=47	Worksite A (2009) n=33	Worksite A (2010) n=13
Yes, it's normal	59.6%	60.6%	61.5%
Yes, it is borderline high or high*	29.8%	39.4%	30.8%
No, I don't know	10.6%	0.0%	7.7%

*Response categories combined due to small numbers

Table 14b: Worksite B – Knowledge of blood pressure numbers

Answer Options	Worksite B (2008) n=54	Worksite B (2009) n=61	Worksite B (2010) n=36
Yes, it's normal	66.7%	73.8%	72.2%
Yes, it is borderline high or high*	27.8%	21.3%	25.0%
No, I don't know	5.6%	4.9%	2.8%

*Response categories combined due to small numbers

When Worksite A respondents were then asked if they were told on two or more different visits to a doctor or other health professional that they had high blood pressure, again, over 96% reported they knew their blood pressure numbers (96% in 2008, 97% in 2009, and 100% in 2010; Table 15a). Fifty-seven percent reported their blood pressure was normal. These percents varied slightly from the previous question.

When Worksite B respondents were then asked if they were told on two or more different visits to a doctor or other health professional that they had high blood pressure, over 97% reported they knew their blood pressure numbers (98% in 2008, 100% in 2009, and 97% in 2010; Table 15b). Sixty-four percent reported their blood pressure was normal. These percents varied slightly from the previous question. In general, Worksite B respondents were slightly less likely to report that their blood pressure was high when asked about their numbers than when asked if they were told by a health provider that it is high, although this was not a statistically significant difference.

Table 15a: Worksite A - Told on two or more different visits to a doctor or other health professional that they have high blood pressure

Answer Options	Worksite A (2008) n=46	Worksite A (2009) n=33	Worksite A (2010) n=13
Yes, high or borderline high*	36.9%	30.4%	42.9%
No	58.7%	66.7%	57.1%
Don't know / Not sure	4.3%	3.0%	0.0%

*Response categories combined due to small numbers.

Table 15b: Worksite B - Told on two or more different visits to a doctor or other health professional that they have high blood pressure

Answer Options	Worksite B (2008) n=54	Worksite B (2009) n=58	Worksite B (2010) n=36
Yes, high or borderline high*	39.0%	34.4%	33.4%
No	59.3%	65.5%	63.9%
Don't know / Not sure	1.9%	0.0%	2.8%

*Response categories combined due to small numbers.

In all survey years, the vast majority of Worksite A respondents with borderline or high blood pressure reported they were taking the recommended action based on JNC7 guidelines (The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/dash_atglance.pdf).

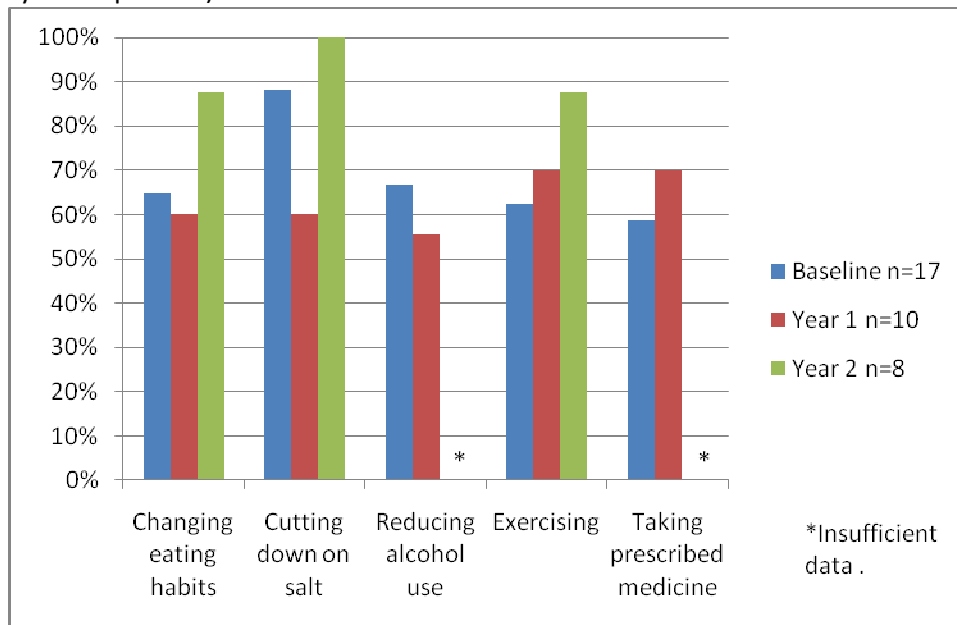
Worksite A respondents reported taking the following actions to control their high blood pressure:

- Changing eating habits (65% in 2008, 60% in 2009, and 88% in 2010)
- Cutting down on salt (88% in 2008, 60% in 2009, and 100% in 2010)
- Reducing alcohol (67% in 2008, 56% in 2009, and in sufficient numbers in 2010)
- Exercising (63% in 2008, 70% in 2009, and 88% in 2010)
- Taking prescribed medicine (59% in 2008, 70% in 2009, and in sufficient numbers in 2010)

Controlling weight, a recommended action by JNC 7 was only asked at baseline and removed for year 1 and 2 as Worksite A was not comfortable sharing these data as employee size decreased.

Although the numbers are small and there is some fluctuation, there does appear to be an increase in the percent of respondents reporting most actions, especially exercising to control their high blood pressure (Figure 1a). This was not a statistically significant increase, however. All of these actions to control high blood pressure were addressed in various educational materials and behavior change programs.

Figure1a: Worksite A - Actions taken to lower or control high blood pressure (Asked only of those told on two or more visits to a doctor or health professional that they had high blood pressure. Only includes “yes” responses.)



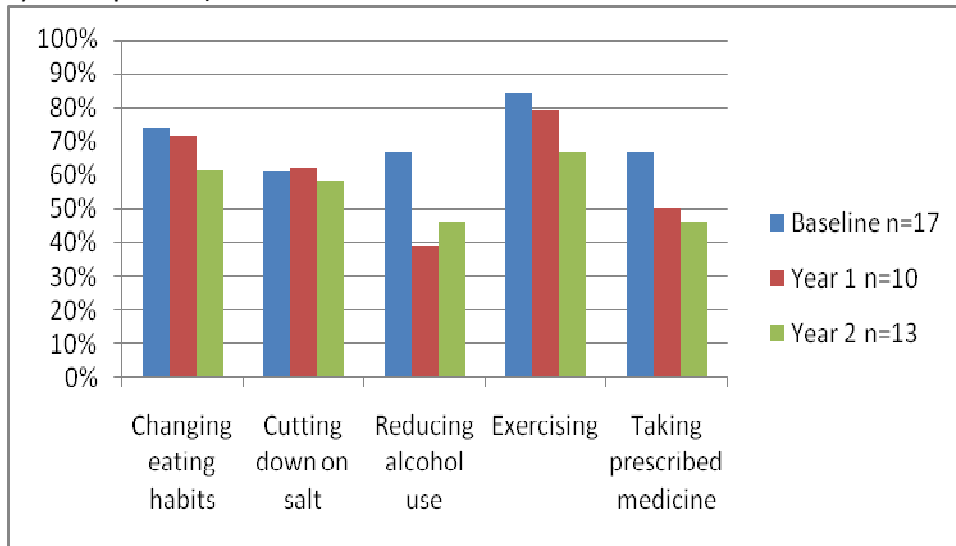
Worksite B respondents reported taking the following actions to control their high blood pressure:

- Changing eating habits (74% in 2008, 71% in 2009, and 62% in 2010)
- Cutting down on salt (61% in 2008, 62% in 2009, and 58% in 2010)
- Reducing alcohol (67% in 2008, 39% in 2009, and 46% in 2010)
- Exercising (84% in 2008, 79% in 2009, and 67% in 2010)
- Taking prescribed medicine (67% in 2008, 50% in 2009, and 46% in 2010)

Although in all survey years, the vast majority of Worksite B respondents with borderline or high blood pressure reported they were taking the recommended JNC7 actions, there does appear to be a slight decrease in most actions to control high blood pressure, however, this was not a statistically significant decrease (Figure 1b). This may be explained by the fact that through 2007, when they were self-insured, employees could earn up to 20% of the total health insurance premium (over \$1000) for managing their health risks. Only 6 months before we started collecting data, they became fully insured and removed this incentive program. Although all of these actions to control high blood pressure were addressed in various educational materials and behavior change programs, the removal of the health insurance premium may have negated some

of the intervention components. It should be noted that the qualitative evaluation revealed that some employees were able to go off medication for high blood pressure as a result of making therapeutic lifestyle changes.

Figure 1b: Worksite B - Actions taken to lower or control high blood pressure (Asked only of those told on two or more visits to a doctor or health professional that they had high blood pressure. Only includes “yes” responses.)



Self-Efficacy in Blood Pressure Management

In all survey years, the vast majority of Worksite A respondents with high blood pressure reported that they had confidence that they could do all the things needed to manage their high blood pressure on a daily basis. Although not a statistically significant difference, the percent reporting they were “confident” or “totally confident” decreased over the course of the pilot (82% in 2008, 80% in 2009, and 75% in 2010; Table 16a). Also in all survey years, the vast majority of Worksite A respondents with high blood pressure reported that they had confidence that they could do things other than just taking medication to control their high blood pressure (71% in 2008, 90% in 2009, and 83% in 2010; Table 16a).

Table 16a: Worksite A - Efficacy in high blood pressure self-management

	How confident are you that you can do all the things needed to manage your high blood pressure on a daily basis?			How confident are you that you can do things other than just taking medication to control your high blood pressure?		
	Worksite A (2008) n=17	Worksite A (2009) n=10	Worksite A (2010) n=8	Worksite A (2008) n=17	Worksite A (2009) n=10	Worksite A (2010) n=8
Not at all confident or Not confident or	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%
Neither confident or not confident	17.6%	20.0%	25.0%	23.5%	10.0%	16.7%
Confident or Totally confident	82.3%	80.0%	75.0%	70.5%	90.0%	83.3%

In all survey years, the vast majority of Worksite B respondents reported that they had confidence that they could do all the things needed to manage their high blood pressure on a daily basis. Although not a statistically significant difference, the percent reporting they were “confident” or “totally confident” decreased over the course of the pilot (75% in 2008, 80% in 2009, and 69.2% in 2010; Table 16b). Also in all survey years, the vast majority of Worksite B respondents with high blood pressure reported that they had confidence that they could do things other than just taking medication to control their high blood pressure (75% in 2008, 75% in 2009, and 69.3% in 2010; Table 16b).

Table 16b: Worksite B - efficacy in high blood pressure self-management

	How confident are you that you can do all the things needed to manage your high blood pressure on a daily basis?			How confident are you that you can do things other than just taking medication to control your high blood pressure?		
	Worksite B (2008) n=20	Worksite B (2009) n=20	Worksite B (2010) n=13	Worksite B (2008) n=20	Worksite B (2009) n=20	Worksite B (2010) n=13
Not at all confident or Not confident or	10.0%	0.0%	15.4%	5.0%	0.0%	7.7%
Neither confident or not confident	15.0%	20.0%	15.4%	20.0%	25.0%	23.1%
Confident or Totally confident	75.0%	80.0%	69.2%	75.0%	75.0%	69.3%

Cholesterol

In all survey years, over 92% of Worksite A respondents reported they knew their blood cholesterol numbers (91.5% in 2008, 96.9% in 2009, and 92.3% in 2010; Table 17a). The percent reporting their cholesterol is normal decreased over the course of the pilot, however, this was not statistically significant (72.3% in 2008, 68.8% in 2009, and 61.5% in 2010; Table 17a).

In all survey years, over 86% of Worksite B respondents reported they knew their blood cholesterol numbers (88.7% in 2008, 94.9% in 2009, and 86.1% in 2010; Table 17b). The percent of respondents reporting their cholesterol is normal was 54.7% in 2008, 62.7% in 2009, and 55.6% in 2010.

When respondents were then asked if they were EVER told by a doctor or other health professional that they had high cholesterol, over 50% of Worksite A respondents reported having normal cholesterol (50.0% in 2008, 60.6% in 2009, and 64.3% in 2010; Table 18a).

About half of Worksite B respondents reported their doctor told them their cholesterol was normal (50.9% in 2008, 49.2% in 2009, and 50.0% in 2010; Table 17b).

Although it did not reach statistical significance, both Worksite A and Worksite B respondents' general recall of whether they have borderline high or high cholesterol was lower than the percent reporting their doctor or health professional told them their cholesterol was borderline high or high (Figure 2a and 2b).

Table 17a: Worksite A - Knowledge of total cholesterol numbers

Answer Options	Worksite A (2008) n=47	Worksite A (2009) n=32	Worksite A (2010) n=13
Yes, it's normal	72.3%	68.8%	61.5%
Yes, it is borderline high or high*	19.2%	28.2%	30.8%
No, I don't know	8.5%	3.1%	7.7%

*Responses combined due to small numbers.

Table 17b: Worksite B - Knowledge of total cholesterol numbers

Answer Options	Worksite B (2008) n=53	Worksite B (2009) n=59	Worksite B (2010) n=36
Yes, it's normal	54.7%	62.7%	55.6%
Yes, it is borderline high or high*	33.9%	32.2%	30.5%
No, I don't know	11.3%	5.1%	13.9%

*Responses combined due to small numbers.

Table 18a: Worksite A - EVER told by a doctor or other health professional that they had high cholesterol

Answer Options	Worksite A (2008) n=46	Worksite A (2009) n=33	Worksite A (2010) n=13
Yes, borderline high or high*	47.9%	39.4%	35.7%
No	50.0%	60.6%	64.3%
Don't know / Not sure	2.2%	0.0%	0.0%

*Responses combined due to small numbers.

Table 18b: Worksite B - EVER told by a doctor or other health professional that they had high cholesterol

Answer Options	Worksite B (2008) n=53	Worksite B (2009) n=59	Worksite B (2010) n=36
Yes, borderline high or high*	49.1%	50.8%	50.0%
No	50.9%	49.2%	50.0%
Don't know / Not sure	0.0%	0.0%	0.0%

*Responses combined due to small numbers.

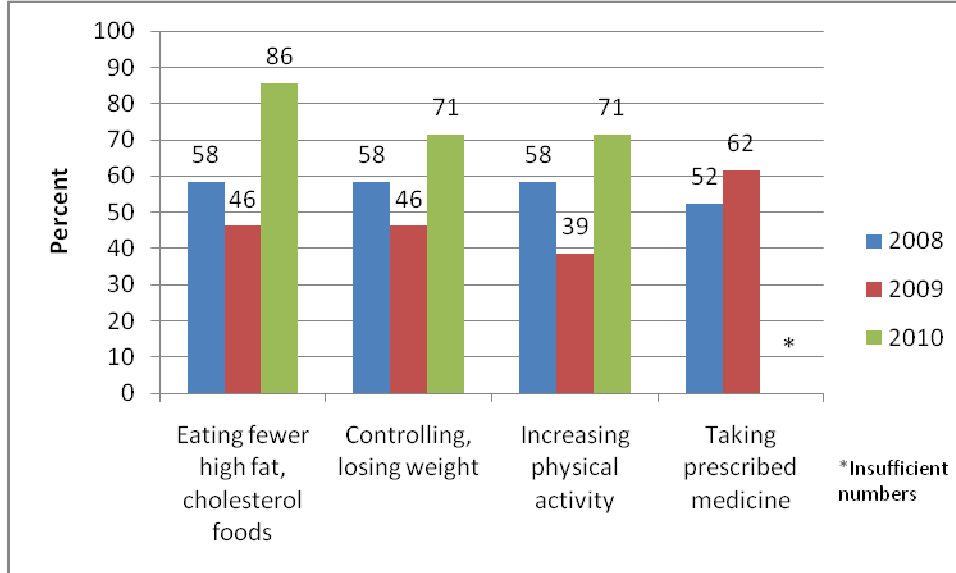
Respondents with high or borderline high cholesterol were asked whether they were taking actions to control their high cholesterol (based on JNC 7 Guidelines). The desired impact of the intervention was to see an increase in the percent of employees that reported taking action to control their high cholesterol.

Worksite A respondents reported taking the following actions to control their high cholesterol:

- Eating fewer high fat or high cholesterol foods (58.3% in 2008, 46.2% in 2009, and 85.7% in 2010)
- Controlling or losing weight (58.3% in 2008, 46.2% in 2009, and 71.4% in 2010)
- Increasing physical activity (58.3% in 2008, 38.5% in 2009, and 71.4 in 2010)
- Taking prescribed medicine (52.4% in 2008, 61.5% in 2009, and in sufficient numbers in 2010)

Although the numbers are small and therefore did not reach statistical significance, after a decrease in year one, there does appear to be an increase in the percent of Worksite A employees reporting that they are taking most of the recommended actions to control their high cholesterol (Figure 3a). All of these actions to control high cholesterol were addressed in various educational materials and behavior change programs.

Figure 3a: Worksite A - Respondents reporting taking action to lower or control high cholesterol (only includes “yes” responses)

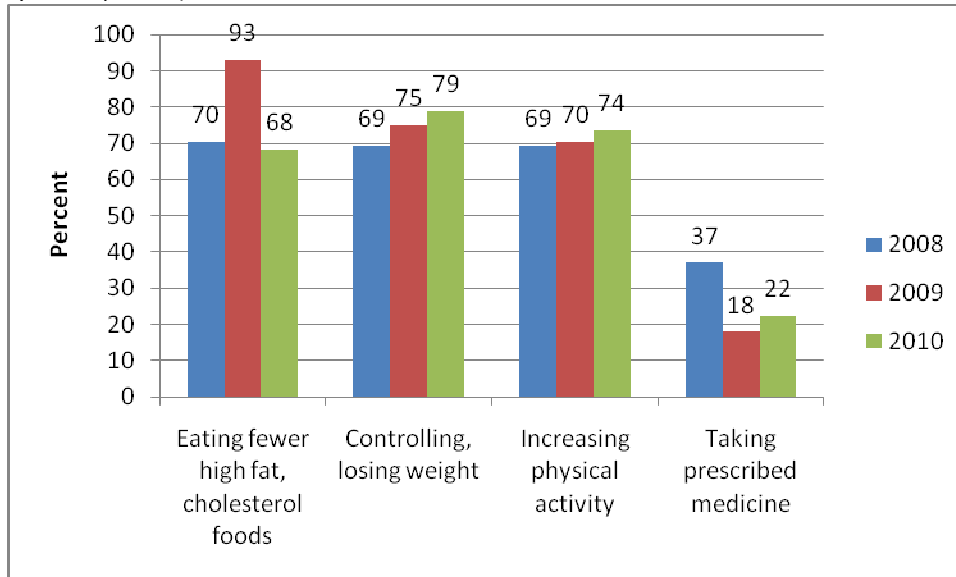


Worksite B respondents reported taking the following actions to control their high cholesterol:

- Eating fewer high fat or high cholesterol foods (70.4% in 2008, 93.1% in 2009, and 68.4% in 2010)
- Controlling or losing weight (59.2% in 2008, 75.0% in 2009, and 78.9% in 2010)
- Increasing physical activity (69.2% in 2008, 70.4% in 2009, and 73.7 in 2010)
- Taking prescribed medicine (37.0% in 2008, 17.9% in 2009, and 22.2% 2010)

Although the numbers are small and therefore did not reach statistical significance and there is some fluctuation over the course of the pilot, there does appear to be an increase in the percent of Worksite B employees reporting that they are controlling or losing weight and increasing physical activity to control their high cholesterol (Figure 3b). Although all of these actions to control high cholesterol were addressed in various educational materials and behavior change programs, controlling and losing weight and increasing physical activity were focused extensively in both years of the pilot. A strategy that focused on healthy eating to control high cholesterol was implemented in only in the first year and may explain the improvement in this area. The decline in 2010 suggests that continued focus is necessary to maintain changes.

Figure 3b: Worksite B – Respondents reporting taking action to lower or control high cholesterol (only includes “yes” responses)



Self-Efficacy in Cholesterol Management

In all survey years, over 69% of Worksite A respondents with high cholesterol reported that they had confidence that they could do all the things needed to manage their high cholesterol on a daily basis. Although not a statistically significant difference, the percent reporting they were “confident” or “totally confident” decreased over the course of the pilot (82% in 2008, 69% in 2009, and 75% in 2010; Table 19a). Also in all survey years, the vast majority of Worksite A respondents with high cholesterol reported that they had confidence that they could do things other than just taking medication to control their high blood pressure. There was an increase in confidence that Worksite A respondents could do things other than taking prescribed medication to control their high cholesterol between baseline and year 2; however this improvement decreased from year 1 to year 2 and almost returned to baseline levels (81% in 2008, 90% in 2009, and 83% in 2010; Table 19a).

Table 19a: Worksite A – Efficacy in high cholesterol self-management

	How confident are you that you can do all the things needed to manage your high cholesterol on a daily basis?			How confident are you that you can do things other than just taking medication to control your high cholesterol?		
	Worksite A (2008) n=17	Worksite A (2009) n=10	Worksite A (2010) n=8	Worksite A (2008) n=17	Worksite A (2009) n=10	Worksite A (2010) n=8
Not at all confident or Not confident or	0.0%	7.7%	0.0%	14.3%	0.0%	0.0%
Neither confident or not confident	17.6	23.1%	25.0%	4.8%	10.0%	16.7%
Confident or Totally confident	82.3%	69.2%	75.0%	81.0%	90.0%	83.3%

In all survey years, over 69% of Worksite B respondents with high cholesterol reported that they had confidence that they could do all the things needed to manage their high cholesterol on a daily basis. Although not a statistically significant difference, the percent reporting they were “confident” or “totally confident” decreased over the course of the pilot (82% in 2008, 79% in 2009, and 69% in 2010; Table 19b). Also in all survey years, the vast majority of Worksite B respondents with high cholesterol reported that they had confidence that they could do things other than just taking medication to control their high cholesterol. Although the numbers are small and therefore did not reach statistical significance, there appears to be an increase in confidence that Worksite B respondents could do things other than taking prescribed medication to control their high cholesterol (71% in 2008, 79% in 2009, and 79% in 2010; Table 19b).

Table 19b: Worksite B – Efficacy in high cholesterol self-management

	How confident are you that you can do all the things needed to manage your high cholesterol on a daily basis?			How confident are you that you can do things other than just taking medication to control your high cholesterol?		
	Worksite B (2008) n=28	Worksite B (2009) n=28	Worksite B (2010) n=19	Worksite B (2008) n=28	Worksite B (2009) n=28	Worksite B (2010) n=19
Not at all confident or Not confident or	3.6% (-3.3, 10.5)	0.0% (-4.8, 15.4)	5.3%	3.6% (-3.3, 10.5)	0.0%	0.0%
Neither confident or Not confident	14.3% (1.3, 27.3)	21.4% (6.5, 46.1)	25.0% (-5, 35.7)	25.0% (9.0, 41.0)	21.4% (6.5, 36.3)	21.1% (2.8, 39.4)
Confident or Totally confident	82.1% (67.9, 96.3)	78.5% (47.6, 89.4)	68.5% (45.0, 105.0)	71.4% (54.7, 88.1)	78.5% (63.4, 93.8)	78.9% (60.6, 97.2)

Knowledge of signs or symptoms of heart attack

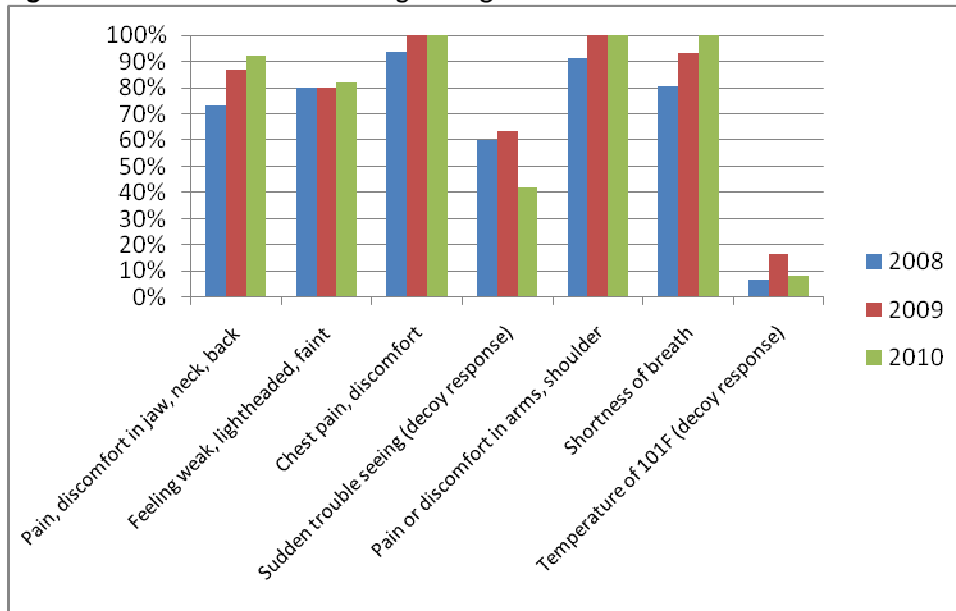
The desired impact of the intervention was to see an increase in the percent of employees correctly identifying the signs or symptoms of heart attack. The percent of Worksite A respondents correctly identifying one of the signs of heart attack ranged from 43% to 100% (Table 20a). Typically a decoy question is asked to more accurately determine whether people really know the symptom of heart attack or stroke and are not just answering “yes” to all the questions. The percent of respondents incorrectly identifying a decoy sign of a heart attack that was very different from a real sign of heart attack was 6.7% in 2008, 16.7% in 2009 and 8.3% in 2010. Although the numbers are small, confidence intervals suggest that there was a statistically significant difference for two of the signs of heart attack (pain or discomfort in the arms or shoulder; and shortness of breath) and there appears to be an increase that did not reach statistical significance in knowledge in two of the signs of heart attack (pain or discomfort in the jaw, neck or back; chest pain or discomfort; Figure 4a). One of the signs showed little change (feeling weak, lightheaded or faint).

Table 20a: Worksite A – Respondents identified the following as symptoms of a heart attack

Answer Options	Worksite A (2008) n=46 (95% CI)	Worksite A (2009) n=32 (95% CI)	Worksite A (2010) n=13 (95% CI)
a) Pain or discomfort in the jaw, neck or back?	73.3% (60.5, 86.1)	87.1% (75.5, 98.7)	92.3% (77.8, 106.8)
b) Feeling weak, lightheaded or faint?	80.0% (68.4, 91.6)	80.0% (66.1, 93.9)	81.8% (60.8, 102.8)
c) Chest pain or discomfort?	93.5% (86.4, 100.6)	100.0%	100.0%
d) Sudden trouble seeing in one or both eyes? (decoy response)	60.0% (45.8, 74.2)	63.3% (46.6, 80.0)	41.7% (14.9, 68.5)
e) Pain or discomfort in the arms or shoulder?	91.3% (83.2, 99.4)	100.0%*	100.0%*
f) Shortness of breath?	80.4% (68.9, 91.9)	93.3% (84.6, 102.0)	100.0%*
g) Pain or discomfort in the legs? (decoy response)	47.7% (33.3, 62.1)	53.3% (36.0, 70.6)	50.0% (22.8, 77.2)
h) Temperature of 101F? (decoy response)	6.7% (-0.5, 13.9)	16.7% (3.8, 29.6)	8.3% (-6.7, 23.3)

*Statistically significant difference at the 95% level.

Figure 4a: Worksite A – Knowledge of signs of heart attack

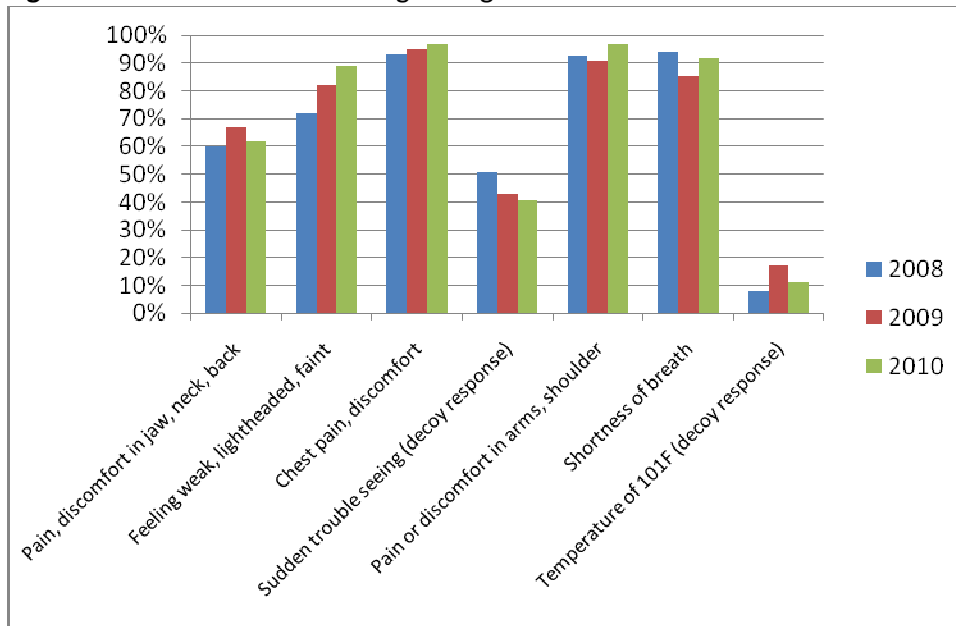


The percent of Worksite B respondents correctly identifying one of the signs of heart attack ranged from 60% to 97% (Table 20b). The percent of respondents incorrectly identifying a decoy sign of a heart attack that was very different from a real sign of heart attack was 8% in 2008, 17% in 2009 and 11% in 2010. Although the numbers are small and did not reach statistical significance, there appears to be an increase in knowledge in two of the signs of heart attack (feeling weak, lightheaded or faint; and pain or discomfort in arms or shoulders; Figure 4b).

Table 20b: Worksite B - Respondents identified the following as signs of a heart attack

Answer Options	Worksite B (2008) (95% CI) n=53	Worksite B (2009) (95% CI) n=54	Worksite B (2010) n=37 (unless otherwise noted) (95% CI)
a) Pain or discomfort in the jaw, neck or back?	60.4% (47.2, 73.6) n=53	66.7% (54.1, 79.3) n=54	62.2% (46.6, 77.8)
b) Feeling weak, lightheaded or faint?	72.0% (59.6, 84.4) n=50	81.8% (71.6, 92.0) n=55	89.2% (79.2, 99.2)
c) Chest pain or discomfort?	96.3% (91.3, 101.3) n=54	94.7% (88.9, 100.5) n=57	97.3% (92.1, 102.5)
d) Sudden trouble seeing in one or both eyes? (decoy response)	51.0% (37.0, 65.0) n=49	42.6% (29.4, 55.8) n=54	40.5% (24.7, 56.3)
e) Pain or discomfort in the arms or shoulder?	92.5% (85.4, 99.6) n=53	91.2% (83.8, 98.6) n=57	97.3% (92.1, 102.5)
f) Shortness of breath?	94.3% (88.1, 100.5) n=53	85.5% (76.2, 94.8) n=55	91.9% (83.1, 100.7)
g) Pain or discomfort in the legs? (decoy response)	49.0% (35.3, 62.7) n=51	51.9% (38.6, 65.2) n=54	33.3% (17.9, 48.7) n=36
h) Temperature of 101F? (decoy response)	8.2% (0.5, 15.9) n=49	17.0% (6.9, 27.1) n=53	10.8% (0.8, 20.8)

Figure 4b: Worksite B – Knowledge of signs of heart attack



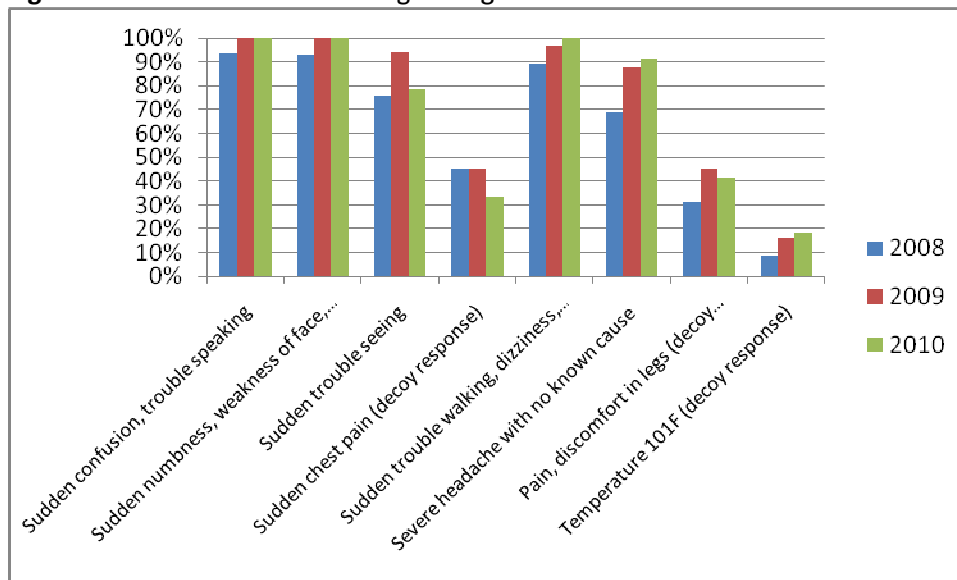
Knowledge of signs or symptoms of stroke

The desired impact of the intervention was to see an increase in the percent of employees correctly identifying the signs or symptoms of stroke. The percent of Worksite A respondents correctly identifying one of the signs of heart attack ranged from 70% to 100% (Table 21). Typically a decoy question is asked to more accurately determine whether people really know the symptoms of stroke and are not just answering “yes” to all the questions. The percent of respondents incorrectly identifying a decoy sign of a stroke that was very different from a real sign of heart attack was 9% in 2008, 16% in 2009 and 18% in 2010. Although the numbers are small and differences did not reach statistical significance, there appears to be an increase in knowledge of the signs of stroke (Figure 5a). The percent of Worksite A respondents that correctly identified the signs or symptoms of heart attack increased from baseline to year 1 to year 2 for four of the signs (sudden confusion or trouble speaking; sudden numbness or weakness of face, arm or leg, especially on one side; sudden trouble walking, dizziness or loss of balance; and severe headache with no known cause). One of the signs showed an increase from baseline to year 1, but then decreased from year 1 to 2 and returned almost to baseline (sudden trouble seeing in one or both eyes). None of these changes were statistically significant.

Table 21a: Worksite A - Respondents identified the following as symptoms of a stroke

Answer Options	Worksite A (2008) n=46 (95% CI)	Worksite A (2009) n=33 (95% CI)	Worksite A (2010) n=14 (95% CI)
a) Sudden confusion or trouble speaking?	93.5% (86.4, 100.6)	100.0%	100.0%
b) Sudden numbness or weakness of face, arm or leg, especially on one side?	93.3% (86.1, 100.5)	100.0%	100.0%
c) Sudden trouble seeing in one or both eyes?	76.1% (63.8, 88.4)	93.9% (85.7, 102.1)	78.6% (57.1, 100.1)
d) Sudden chest pain or discomfort? (decoy response)	45.5% (31.1, 59.9)	45.2% (28.2, 62.2)	33.3% (8.6, 58.0)
e) Sudden trouble walking, dizziness or loss of balance?	89.1% (80.1, 98.1)	97.0% (91.2, 102.8)	100%
f) Severe headache with no known cause?	68.9% (55.5, 82.3)	87.5% (76.2, 98.8)	91.7% (77.2, 106.2)
g) Pain or discomfort in the legs? (decoy response)	31.1% (17.7, 44.5)	45.2% (28.2, 62.2)	41.7% (15.9, 67.5)
h) Temperature of 101F? (decoy response)	8.9% (0.7, 17.1)	16.1% (3.6, 28.6)	18.2% (-2.0, 38.4)

Figure 5a: Worksite A – Knowledge of signs of stroke



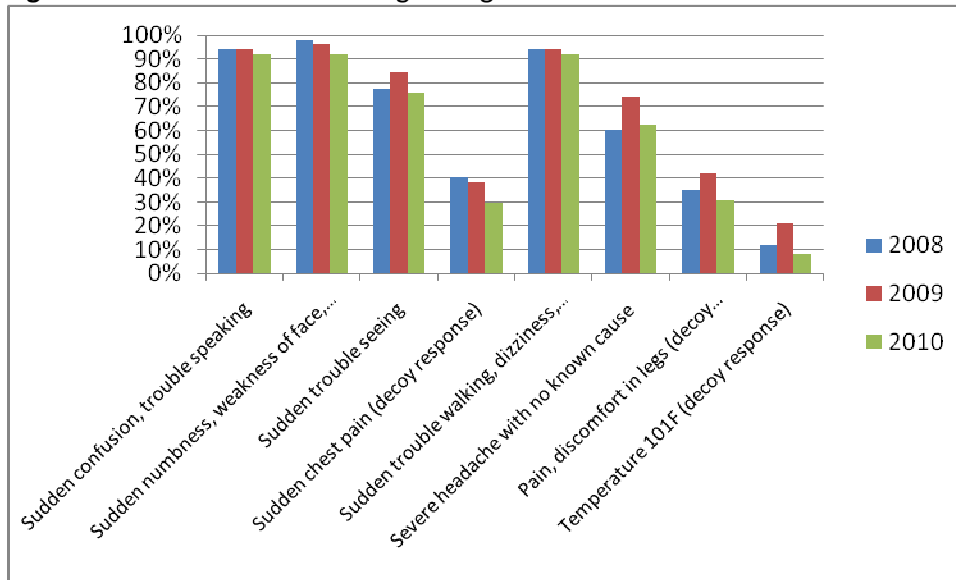
The desired impact of the intervention was to see an increase in the percent of employees correctly identifying the signs or symptoms of stroke. The percent of Worksite B respondents correctly identifying one of the signs of heart attack ranged from 60% to 98% (Table 21b). Typically a decoy question is asked to more accurately determine whether people really know

the symptom of stroke and are not just answering “yes” to all the questions. The percent of respondents incorrectly identifying a decoy sign of a heart attack that was very different from a real sign of stroke was 12% in 2008, 21% in 2009 and 8% in 2010. There appears to be very little change in knowledge in one of the signs of stroke (severe headache with no known cause) and for some signs there was a decrease (sudden confusion or trouble speaking; sudden numbness or weakness of face, arm or leg; sudden trouble seeing, and dizziness or loss of balance; Figure 5b).

Table 21b: Worksite B - Respondents identified the following as symptoms of a stroke

Answer Options	Worksite B (2008) (95% CI)	Worksite B (2009) (95% CI)	Worksite B (2010) n=37 (unless otherwise noted) (95% CI)
a) Sudden confusion or trouble speaking?	94.4% (88.3, 100.5) n=54	94.3% (88.3, 100.5) n=53	91.9% (88.1, 100.7)
b) Sudden numbness or weakness of face, arm or leg, especially on one side?	98.1% (94.5, 101.7) n=54	96.3% (91.4, 101.2) n=54	91.9% (88.1, 100.7)
c) Sudden trouble seeing in one or both eyes?	77.4% (66.1, 88.7) n=53	84.3% (74.3, 94.3) n=51	75.7% (61.9, 89.5)
d) Sudden chest pain or discomfort? (decoy response)	40.4% (26.4, 54.4) n=47	38.0% (24.5, 51.5) n=50	29.7% (15.0, 44.4)
e) Sudden trouble walking, dizziness or loss of balance?	94.3% (88.1, 100.5) n=53	94.2% (87.8, 100.6) n=52	91.9% (88.1, 100.7)
f) Severe headache with no known cause?	60.4% (47.4, 73.4) n=53	74.5% (62.5, 86.5) n=51	62.2% (46.6, 77.8)
g) Pain or discomfort in the legs? (decoy response)	35.3% (22.2, 48.4) n=51	42.0% (28.3, 55.7) n=50	30.6% (15.5, 45.7) n=36
h) Temperature of 101F? (decoy response)	12.0% (3.0, 21.0) n=50	20.8% (9.3, 32.3) n=48	8.3% (-0.7, 17.3) n=36

Figure 5b: Worksite B – Knowledge of signs of stroke



At the end of the pilot intervention, questions were added to the employee survey to find out whether respondents were aware of the policy and environmental changes that were put in place in their worksite.

The majority (69%) of Worksite A respondents reported that their worksite had an electronic blood pressure monitoring device onsite. A smaller percentage, but still a majority (58%) reported their worksite had trained staff members who can measure their blood pressure. A larger percentage (92%) reported their worksite encouraged employees to have their blood pressure checked by their physician. Fewer, but still the majority (54%) reported their worksite offers resources related to prescription drug assistance to control high blood pressure.

Five of the six of Worksite A respondents with borderline or high blood pressure reported they had used the onsite blood pressure equipment to measure their blood pressure. Four of these respondents reported they had their blood pressure checked by a staff member trained to take blood pressure measurement, and all reported having their blood pressure checked by a nurse or health coach.

The majority (69%) of Worksite B respondents reported that their worksite had an electronic blood pressure monitoring device onsite. A larger percentage (89%) reported their worksite had trained staff members who can measure their blood pressure. An even larger percentage (97%) reported their worksite encouraged employees to have their blood pressure checked by their physician. Fewer, but still the majority (57%) reported their worksite offers resources related to prescription drug assistance to control high blood pressure.

Two of the twelve Worksite B respondents with borderline or high blood pressure reported they had used the onsite blood pressure equipment to measure their blood pressure. All twelve of these respondents reported they had their blood pressure checked by a staff member trained to

take blood pressure measurement, and eleven reported having their blood pressure checked by a nurse or health coach.

Health Risk Appraisal (HRA) Data

Worksites provided previous Health Risk Appraisal aggregate data and administered HRAs during the pilot intervention. These were conducted by different vendors and therefore each worksite used a slightly different approach to complete the HRAs. These data include spouses and dependents of employees.

The percent at goal for Worksite A for blood pressure (<140/90mmHg) improved slightly over the course of the pilot intervention (78% in 2008 vs. 80% in 2009). The percent at goal for total cholesterol (<200mg/DL) also improved over the course of the pilot intervention (62% in 2008 vs., 78% in 2009, Table 22). The average values for blood pressure and cholesterol also increased from when HRAs were first conducted at Worksite A in 2002 and 2009 with the exception of HDL values (Table 23).

Table 22: Worksite A- Blood Pressure and Cholesterol Goal Status

	Report Period 1/7/2002-1/29/2008		Report Period 1/7/2002-8/04/2009	
	Number of Employees or Dependents	Percent	Number of Employees or Dependents	Percent
At Goal - blood pressure < 140/90	179 (n=229)	78%	33 (n=41)	80%
At Goal - cholesterol <200	143 (n=227)	62%	31 (n=41)	78%

Table 23: Worksite A - Average Blood Pressure and Cholesterol

Measurement	2002	2009
BP-Systolic (n=41)	128	123
BP- Diastolic (n=41)	79	74
Cholesterol (n=40)	212	173
HDL (n=40)	55	45

The percent at goal for Worksite B for blood pressure (<140/90mmHg) decreased slightly between the most recent HRA data before and at the end of year 1 the pilot intervention (87% in 2007 vs. 85% in 2009). The percent at goal for total cholesterol (<200mg/DL) increased slightly (66% in 2007 vs., 67% in 2009). The percent at goal for LDL cholesterol (<130mg/DL) improved (65% in 2007 vs., 74% in 2009, Table 24). HDL cholesterol was not measured in 2009.

Table 24: Worksite B - Blood Pressure and Cholesterol Goal Status

Goal Achievement	Aug-07 n=141	Oct-09 n=107
Blood pressure < 140/90	87%	85%
Total cholesterol <200	66%	67%
HDL Cholesterol ≥ 40	69%	NA
LDL cholesterol <130	65%	74%

Worksite B HRA included information on cardiovascular disease risk factors. Between the time periods, overweight decreased (63% in 2007 vs. 67% in 2009) and tobacco use decreased (25% in 2005 vs. 18% in 2009). The percent reported they do not exercise the recommended three or more times per week increased from 44% in 2007 to 75% in 2009 (Table 25).

Table 25: Worksite B - Cardiovascular disease risk factors

Risk Factor	Aug-07 n=141	Oct-09 n=107	Oct-09 Goal setting among those at risk
BMI > 25	89 (63%)	72 (67%)	68 (94%)
Tobacco users	35 (25%)	19 (18%)	17 (92%)
Do not exercise 3 or more times per week	62 (44%)	80 (75%)	71 (89%)
Not eating recommended fruits, vegetables & grains	NA	72 (67%)	72 (78%)
Not eating low fat foods	NA	34 (32%)	

Limitations

The low response rates for some years of the employee survey and the small numbers for one worksite limit the usefulness of quantitative data and statistical testing. The small number of employees and short duration of the pilot poses a challenge when attempting to show impact of the intervention.

Conclusions

The MCVHP challenged pilot worksites to create a culture where every employee would know their blood pressure and cholesterol numbers and have numerous opportunities to monitor (blood pressure only), and, if it is high, receive guidance, support and referral to control their high blood pressure or cholesterol. Each employer participated in a yearly planning process to identify the mix of programs, policies, environmental changes, and behavior change initiatives to work toward this challenge.

Despite significant barriers that limited the potential effect of interventions, both pilot sites added a level of blood pressure and cholesterol assessment and control not seen in most employee health management programs. In addition to onsite screening and encouragement to visit a health care provider, during the pilot both sites added automated and manual blood pressure assessment, at a very low cost. This approach is feasible for the majority of small businesses that do not have onsite occupational health, and who typically do not offer health assessments or screenings. Working with pilot sites to focus on blood pressure and cholesterol resulted in a number of new initiatives that increase the likelihood that all employees know their blood pressure and cholesterol numbers, have the ability to monitor it if needed (blood pressure only), and receive support related to control.

The qualitative and quantitative evaluation methods suggest that the MCVHP worksite pilot intervention to increase the prevention, detection and control of high blood pressure and cholesterol is a strong candidate for a promising process. A promising process is a successful intervention process that appears to support or lead to achievement of short, intermediate, or long-term outcomes when the achievement of outcomes has not been documented (CDC HDSP Promising Practice Project, 2008). In order to be considered a promising practice, the pilot would need to show direct impact on most of its intended short-term outcomes.

Following are conclusions by domain areas [Adoption, Reach, Implementation, Effectiveness and Maintenance (Glasgow et al)]. Appendix F provides answers to various evaluation questions, by domain.

Adoption: Worksites adopted approximately three-quarters of the intervention components. The economic challenges likely prevented worksites from fully adopting the intervention.

Reach: Within the worksites the employee reach ranged from 20% to 100% for the various activities of the intervention. For Worksite A where the employee size decreased significantly over the course of the pilot, this resulted in a small number of employees being reached. This worksite, however, that started out as large by Maine standards but became very small by national standards, is representative of the majority of worksites in Maine. Ninety percent of Maine companies have fewer than 20 employees, 9% have 20-99 employees, and 1% has 100 or more employees (Critical Insights, 2009).

Implementation: The majority of the intervention activities were implemented at the two worksites. One of the two systems level activities was completed. The other activity could not be completed until after the pilot was completed (share lessons learned and spread pilot activities to other worksites).

Effectiveness: Data collection and analyses occurred but changes in the broader economic climate and at the worksites limited usefulness of quantitative data. Qualitative data paint a positive picture overall since both worksites had some successes and improvements in short-term outcomes.

- Improved CVH policies and environments
- Some increase in knowledge among employees of signs and symptoms of heart attack and stroke
- Some increase in employees reporting lifestyle behavior change to control high blood pressure and high cholesterol
- Some improvements in high blood pressure and cholesterol control

Maintenance: The intervention activities are relatively low-cost and easy to put in place as they do not require a full-time wellness staff person to manage. However, both worksites said that they did need some assistance from the public health community to implement these activities.

Recommendations

Given that the pilot intervention activities showed some success, it is recommended that the lessons learned from the pilot be spread through the Wellness Council of Maine and incorporated into Healthy Maine Works (HMW). Pilot worksites listed the technical assistance provided by the MCVHP as crucial to their success in implementing environmental changes. They also stated that this technical assistance would likely increase the likelihood that other worksites would implement these strategies to improve the detection and control of high blood pressure and cholesterol. The Healthy Maine Partnerships could be trained to provide this technical assistance to worksites selecting these strategies in HMW.

Specifically,

1. Share brief stories of the pilot intervention by the Council to its members. Refer members that are interested in implementing similar activities to HMW.

2. Instruct HMPs on how to assist worksites to disseminate the evidence-based educational messages used by the pilot worksites.
3. Inform worksites with at risk employee populations that technical assistance is available from HMPs and MCVHP.
4. Explore the feasibility of an application process for scholarship or financial assistance for worksites with completed HMW strategies in preventing chronic disease and demonstrate need for blood pressure on-site monitoring equipment to reduce the financial barrier for worksites in low-income, rural areas in purchasing this equipment.

Appendix A

Evaluation plan

Question Type	Evaluation Question(s)	Indicator(s)	Data Sources	Responsibility/ Data Analysis	Time Frame
Adoption					
Participation	How are pilot worksites chosen?	Description	Interviews with CVHP and worksite staff	Evaluator (Eval)	7/08-9/08
	What effect does the worksite CEO or President have on pilot participation?	Description	Interviews with CVHP and worksite staff	Eval	7/08-9/08
	What effect does other key worksite staff have on program participation?	Description	Interviews with CVHP and worksite staff	Eval	7/08-9/08
Staff	How many FTEs are involved in implementing the worksite pilot at the state level?	# of FTEs working on Worksite BP initiative	Interviews with CVHP staff/ Program files	CVH Specialist-Worksite (CVH Spec-W), Eval	7/08-9/08; 7/10-9/10
	What percent of time does state staff dedicate to the intervention?	% time each FTE spends on program	Interviews with CVHP staff/ Program files	CVH Spec-W, Eval	7/08-9/08; 7/10-9/10
	What worksite staff is responsible implementation of pilot (e.g., systematic/programmatic changes)?	Description	Interview with worksite staff	Eval	7/09-9/09; 7/10-9/10

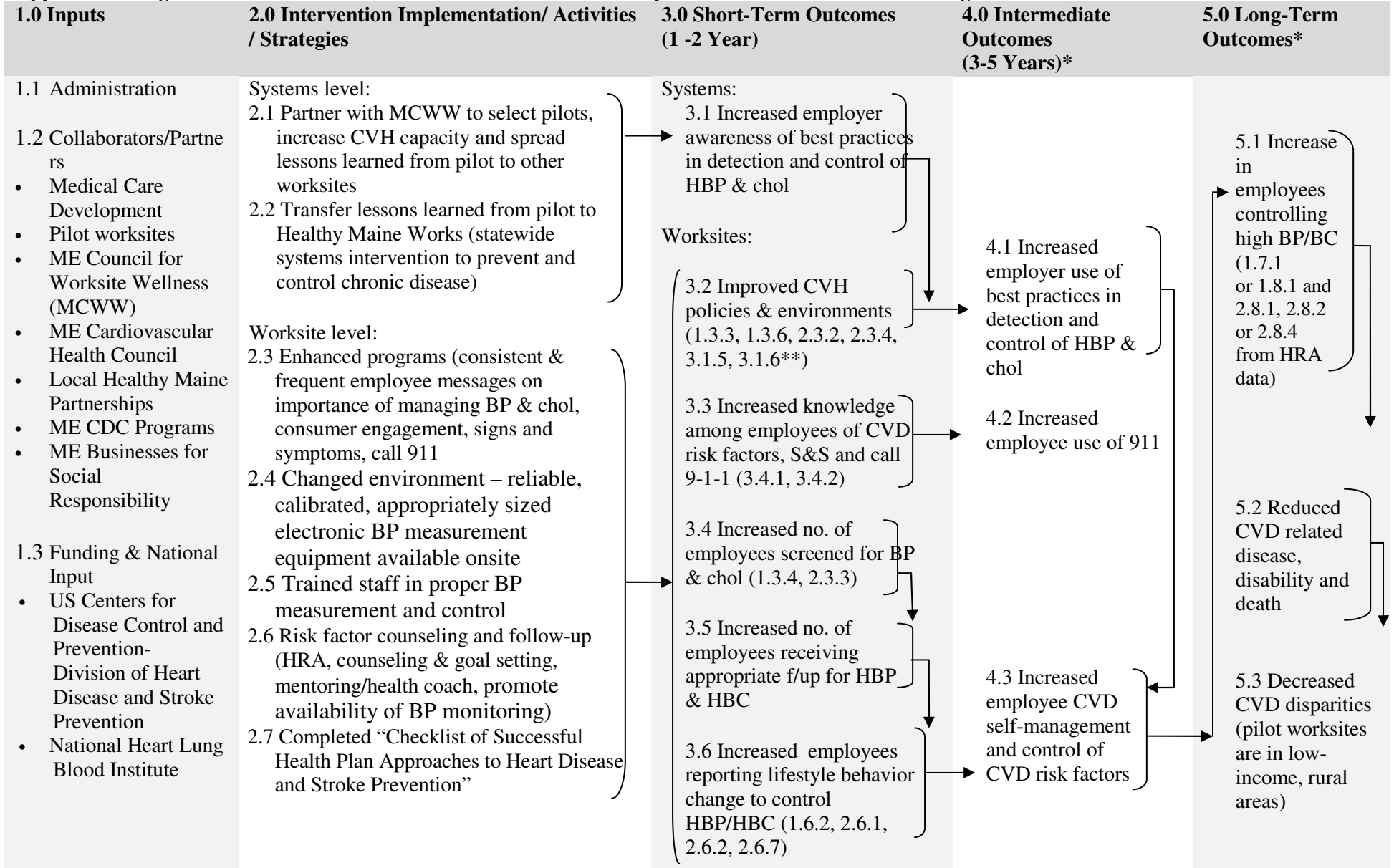
Question Type	Evaluation Question(s)	Indicator(s)	Data Sources	Responsibility/ Data Analysis	Time Frame
	What percent time does worksite staff spend on pilot activities?	Title/position of staff and description of role	Interview with worksite staff	Eval	7/09-9/09; 7/10-9/10
Resources	What are the costs associated with implementing a pilot worksite BP control initiative?	Budget amount for worksite BP initiative	Program budget	CVH Spec-W, Prog Mgr	7/09-9/09; 7/10-9/10
Capacity building	To what extent have pilot worksites increased their capacity for prevention and control of BP and chol over the course of participating in the pilot?	Description	Interviews with CVHP and worksite staff	Eval	7/09-9/09; 7/10-9/10
Implementation					
Intervention description	What elements are necessary to implement a worksite BP/chol pilot?	Description	Interviews with CVHP and worksite staff	Eval	7/09-9/09; 7/10-9/10
Methods/ strategies	What is the process for implementing a worksite BP/chol pilot?	Description	Interviews with CVHP and worksite staff	Eval	7/09-9/09; 7/10-9/10
	What state-provided technical assistance is necessary to aid worksites in participating in the pilot?	Description	Interviews with CVHP and worksite staff	Eval	7/09-9/09; 7/10-9/10
	To what extent do participating pilot worksites utilize technical assistance?	Frequency and type of TA used	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10

Question Type	Evaluation Question(s)	Indicator(s)	Data Sources	Responsibility/ Data Analysis	Time Frame
Facilitators/ obstacles	What facilitators and obstacles occurred while implementing the worksite BP/chol pilot?	Description	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10
Time/schedule	Was the timeframe sufficient and realistic?	Description	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10
Fidelity	To what extent are participating worksites implementing pilot as intended?	Completion of strategies/ activities during specified timeframe	Quarterly mtg or call	CVH Spec-W	On-going
Contact and participation	Is there a relationship between the size or type of a worksite and number of employees that participate?	Description	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10
	Is there a relationship between the amount of TA a worksite receives and the number of employees that participate?	Description	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10
Target population characteristics	What are the characteristics of worksites that participate in the pilot?	Size, location (e.g. urban/rural), type of industry	WLCME application or interviews with worksite staff	CVH Spec-W, Eval	7/08-8/08
	What are the characteristics of employees that participate in the pilot?	Worksite demographics	Employee survey	Eval	7/09-9/09; 7/10-9/10
Disparity	To what extent are worksites with populations at higher risk for heart disease and stroke participating in the pilot?	Worksite demographics & statistics	Employee survey or interviews with worksite staff	CVH Spec-W, Eval	7/8/2008

Question Type	Evaluation Question(s)	Indicator(s)	Data Sources	Responsibility/ Data Analysis	Time Frame
Reach					
	How many worksites are reached through the pilot? How many employees are reached at each pilot worksite?	Number of pilot worksites. Number of employees participating at each pilot worksite.	Program report, Quarterly mtg or call	CVH Spec-W	Ongoing
	What factors influence worksite participation in the pilot? What factors influence employee participation in the pilot activities/elements?	Description	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10
	What worksite barriers exist to participation in the pilot? What employee barriers exist to participation in the pilot activities/elements?	Description	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10
Effectiveness/ Efficacy					
<i>Short-term outcomes</i>					
System/policy changes	What systemic and/or programmatic changes have been made in worksites as a result of the pilot?	Completion of strategies/ activities during specified timeframe. CDC HDSP indicator 1.3.3, 1.3.6, 2.3.4, 3.1.5, 3.1.6.	Interviews with CVHP & worksite staff	Eval	7/09-9/09; 7/10-9/10

Question Type	Evaluation Question(s)	Indicator(s)	Data Sources	Responsibility/ Data Analysis	Time Frame
Participant knowledge and attitudes	What changes in knowledge and attitudes have been made in the employees of participating worksites?	Number/percentage of employees who know their blood pressure and cholesterol levels	Pre-, mid & Post-surveys	Eval	7/08-9/08; 7/10-9/10
		Number/percentage of employees with high BP and/or cholesterol who are confident in their ability to self-manage.	Pre-, mid & Post-surveys	Eval	7/08-9/08; 7/10-9/10
		Number/percentage of employees who know signs & symptoms. CDC HDSP indicator 3.4.1, 3.4.2	Pre-, mid & Post-surveys	Eval	7/08-9/08; 7/10-9/10
<i>Intermediate outcomes</i>					
Participant behavior	What changes in behavior have been made by employees participating in pilot worksites regarding actions to control blood pressure and cholesterol?	Number/percentage of employees who are taking actions to control BP and chol. CDC HDSP indicator 1.6.2, 2.6.1, 2.6.2, 2.6.3, 2.6.7.	Pre-, mid & Post-surveys	Eval	7/08-9/08; 7/10-9/10
Maintenance					
Sustainability	How replicable and sustainable is the worksite BP & chol pilot?	Description	Interviews with CVHP and worksite staff	Eval	7/09-9/09; 7/10-9/10

Appendix B: Logic Model – MCVHP Worksite Pilot Intervention to Improve Detection and Control of High Blood Pressure & Cholesterol 2008-2010



*Pilot and evaluation are for two years. Intermediate and long-term outcomes based on theory of change and promising if worksites continue with intervention.

**CDC HDSP policy and systems change indicator.

Appendix C

Letter of Agreement

Description of Pilot Project Essential Elements & Interventions

Each employer pilot site will participate in an introductory meeting with Maine CDC/DHHS Cardiovascular Health Program (MCVHP) staff to review the pilot project purpose and goals, and complete a checklist of interventions in place prior to the initiation of the 24 month pilot project. MCVHP staff will meet with each pilot site at the end of year 1 and year 2 to discuss and review progress made toward the implementation of the interventions described below. MCVHP staff will check-in at quarterly intervals to offer technical assistance and support to pilot sites throughout the pilot project.

Essential Elements (commitments) of Pilot Project:

- Signed letter of agreement
- Participate in an introductory meeting with MCVHP program staff to review the essential interventions listed in this section. Additional meetings will include:
 - Quarterly interview to review progress to date
 - Annual interview to discuss what is working, what is not
 - Interview at the end of the 24 month pilot to discuss progress and lessons learned
 - Review final written report and case study of pilot findings prior to publication
- Baseline, 12 month, and 24 month employee assessments to determine employee's awareness and knowledge of issues related to blood pressure and cholesterol management, signs and symptoms of a heart attack or stroke and how to activate 9-1-1 and emergency medical services
 - Baseline surveys conducted September 2008
- Willingness to share a copy of your award winning WELCOA application with our program evaluator so that they can better understand what you have accomplished with your program
 - Aggregate reports for:
 - HRA participation
 - Risk stratification
 - Biometric data for BP and Cholesterol: at goal, not at goal, percent change
 - Lifestyle risks: at goal, not at goal, percent change
 - Needs and interests survey

Interventions in Place prior to Pilot Project Participation

The MCVHP is interested in working with WELCOA award winning companies as they have shown their commitment to establishing "best practice" employee wellness programs. Selected worksites will have in place the interventions listed below prior to participation.

- Evidence of senior and middle management support of employee wellness
 - Financially – wellness money in business budget
 - Attendance at employee events
 - Frequent and regular communication w/employees via memos, newsletter, e-mail that supports healthy lifestyles
 - Celebration of employee successes in making healthy lifestyle changes
 - Policy development i.e., tobacco-free, healthy snacks, physical activity
 - Incentives for employee participation in the employee wellness program

- Evidence of an active employee wellness committee
 - Cross section of membership (8-15 people)
 - Meet consistently (monthly recommended)
 - A team leader/chairperson/facilitator of the employee wellness committee
- Evidence of an annual completed employee health risk assessment
- Evidence of an annual employee health screening with appropriate referrals based on employee's health risk
- Evidence of an annual employee needs and interest survey
- Evidence of a quarterly wellness interaction with employees (At least one of the following in past quarter)
 - newsletter – feature an employee who has made successful heart-healthy lifestyle changes
 - health fair
 - health promotion/education classes (i.e., physical activity, tobacco cessation, nutrition)
 - use of web-based tools
- Evidence of a Tobacco-free policy in place
- Evidence of access to low-cost heart-healthy foods and beverages (At least one of the following in past 12 months)
 - Vending machines
 - Information on calories, fat, sodium, etc.
 - Fruit bowls in break rooms
 - Food served at employee meetings
- Evidence of on-going wellness program evaluation
- Evaluation of programs offered
 - Participation per intervention
 - Participant satisfaction
 - Communication channels

Interventions to be implemented during the 24 month Pilot Project

MCVHP staff will work with pilot sites to implement the interventions listed below throughout the 24 month pilot project. In addition to the quarterly meetings, the MCVHP staff will provide technical assistance and support as needed by phone and/or e-mail throughout the 24 month pilot project. Additionally, grant funding may be used on items listed below in **bold** font.

- Enhance existing programs and policies related to the prevention and management of blood pressure and cholesterol in order to reduce their employee's risk of developing a heart attack and/or stroke:
 - **Consistent and frequent messages to employees about the importance of managing blood pressure and cholesterol for the prevention of heart attacks and stroke, (at least once per month during the 24 month pilot project)**
 - Posters, memos, newsletters, e-mail, websites
- **Offer cardiovascular health promotion education programs to employees that will address:**
 - Blood pressure control
 - Blood cholesterol control
 - Conversations employees can have with their health care provider to assess and manage their BP & Cholesterol (MCVHP will assist pilot worksites in general consumer engagement activities, followed by more specific BP/cholesterol topics)
 - Knowing when to call 911
- Policies related to the following: (implement at least one of the following during the pilot project)

- Flex-time or company time for physical activity
- Reimbursement for health and/or fitness related expenses
- Mandatory attendance at on-site health promotion programs
- Development of an emergency action plan with mandatory training for all employees
- Implement a mentoring program with employees who have made successful heart-healthy lifestyle changes to meet and discuss their achievements with those employees who need additional support
- At least twice per year – offer risk factor counseling and follow-up to include:
 - Counseling provided by a nurse or health educator, on site or by telephone, with at risk employees, based on the results of the health screening and health risk appraisal
 - Individual goal setting
 Offer incentives to engage employees in healthy behavior change
 - Gift cards, lower health insurance premiums, tuition reimbursement to attend community classes, pedometers, or other
 - **Grant money can be used on incentives that will benefit a majority of the employee population, i.e., door prize for attending an educational program, distribution of educational materials, social activity for all who participate**
- Identify and promote community resources to employees to sustain interventions over the long-term
- Complete the “Checklist of Successful Health Plan Approaches to Heart Disease and Stroke Prevention” (MCVHP staff has a tool to help employers choose and negotiate a health benefits package that fits their business and workforce. The tool is based on the US Preventative Services Task Force guidelines.) MCVHP staff will assist pilot site by reviewing the results and discussing options for follow-up and implementation.

Optional Interventions

The interventions listed below have been shown to reinforce an employee’s healthy behavior changes but are not mandatory for implementation in this pilot project. An employer may or may not choose to implement the following interventions.

- Provide worksite environmental supports for regular blood pressure monitoring
 - **Onsite blood pressure monitors**
 - Time and space for employees to self-monitor
- Explore need and feasibility for purchasing an *Automated External Defibrillator (AED) and offering additional employee training – **up to \$500 of grant money may be used toward the purchase of an AED**
 - If purchasing an AED, a policy needs to be in place for employee training on the use of the AED and maintenance of the AED
- Offer programs that address the signs and symptoms of a heart attack and stroke, proper use of 911 and how to activate emergency medical services
- Ensure access to CPR trained staff by providing training to key staff members

Appendix D

Worksite A: 2008 Confidential Needs & Interest Survey

This annual survey is a requirement as part of your HLS enrollment. Please complete the survey and return to the confidential drop box, and sign the sheet in the office. Call Mary Waite @ 884-6517 if you have any questions. -----

For each question below, please indicate how likely you would be to participate in each of the following programs if they were offered at work during the next year? Please check the box that corresponds to your answer.

1. Educational Programs

	Extremely Likely	Likely	Unlikely	Very Unlikely
a) Back safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cancer prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Heart disease prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Stroke prevention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Cholesterol reduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Home safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Substance abuse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Smoking Cessation Programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Stress Reduction Programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Time Management Programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Visiting on-site health coach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Fitness Programs

	Extremely Likely	Likely	Unlikely	Very Unlikely
a) Walk-fit programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Summer & winter activity programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Nutrition Education Programs

	Extremely Likely	Likely	Unlikely	Very Unlikely
a) Healthy Cooking (meals/snacks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Healthy Eating (do's & don'ts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Weight management programs (diet & exercise)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) On-site vending machines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(w/more healthy options)

4. Screening and Testing

	Extremely Likely	Likely	Unlikely	Very Unlikely
a) Body Fat Testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Blood pressure checks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Blood sugar (diabetes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Cholesterol levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Blood screening/assessment (such as blood counts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Heart Disease (EKG's)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Colonoscopy (cancer)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Prostate checks (PSA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Mammograms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Other specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. I Would Participate in Health Promotion Programs:

	Extremely Likely	Likely	Unlikely	Very Unlikely
a) Before work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) During lunch or at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) After work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. In general what would you say your health is?

Excellent Very Good Good Fair Poor

7. Compared to one year ago, how would you rate your health in general now?

- Much better than one year ago
 Somewhat better than one year ago
 About the same

- Somewhat worse than one year ago
- Much worse than one year ago

COMMUNICATION WITH DOCTORS

8. When you visit your doctor, how often do you do the following?

	Almost Never	Sometimes	Often	Almost Always
a) Prepare a list of questions for your doctor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Ask questions about the things you want to know about and the things you don't understand about your treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Discuss any personal problems that may be related to your illness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Blood Pressure and Cholesterol Awareness and Confidence in Managing your Health

9. Do you know your blood pressure numbers?

- Yes, it's normal
- Yes, it is borderline high
- Yes, it is high
- No, I don't know

10. Were you told on two or more different visits to a doctor or other health professional that you had high blood pressure?

- Yes
- Yes, but female and told only during pregnancy
- Told borderline high or pre-hypertensive
- No (Skip to Question 14)
- Don't know/ Not sure (Skip to Question 14)

11. Are you now doing any of the following to help lower or control your high blood pressure?

	Yes	Sometimes	No
a) Changing my eating habits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cutting down on salt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Reducing alcohol use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Exercising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Taking prescribed medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Has a doctor or other health professional ever advised you to do any of the following to help lower or control your high blood pressure?

- | Yes | No | I do not use salt
and/or I do not
drink | Don't know |
|-----|----|---|------------|
|-----|----|---|------------|

- | | | | | |
|------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| a) Change your eating habits | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cutting down on salt | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Reduce alcohol use | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Exercise | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Take prescribed medicine | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

13. Having high blood pressure means doing different tasks and activities to control your condition.

- | | Not at all confident | Not confident | Neither confident or not confident | Confident | Totally confident |
|--|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|
| a) How confident are you that you can do all the things needed to manage your high blood pressure on a daily basis? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) How confident are you that you can do things other than just taking medication to control your high blood pressure? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

14. Do you know your total cholesterol number?

- Yes, it's normal
- Yes, it is borderline high
- Yes, it is high
- No, I don't know

15. Have you EVER been told by a doctor, nurse or other health professional that your blood cholesterol is high?

- Yes
- Told borderline high
- No (Skip to Question 19)
- Don't know/Not sure (Skip to Question 19)

16. Are you now doing any of the following to help lower or control your high blood cholesterol?

- | | Yes | Sometimes | No |
|--|--------------------------|--------------------------|--------------------------|
| a) Eating fewer high fat or high cholesterol foods | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Controlling my weight or losing weight | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Increasing my physical activity or exercise | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Taking prescribed medicine | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

17. Has a doctor or other health professional ever advised you to do any of the following to help lower or control your high blood cholesterol?

	Yes	No	Don't Know
a) Eat fewer high fat or high cholesterol foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Control your weight or lose weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Increase your physical activity or exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Take prescribed medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Having high cholesterol means doing different tasks and activities to manage your condition.

	Not at all confident	Not confident	Neither confident or not confident	Confident	Totally confident
a) How confident are you that you can do all the things needed to manage your high cholesterol on a daily basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) How confident are you that you can do things other than just taking medication to control your high cholesterol?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signs and Symptoms of Heart Attack & Stroke

19. Which of the following do you think is a symptom of a heart attack?

	Yes	No	Don't Know
a) Pain or discomfort in the jaw, neck or back?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Feeling weak, lightheaded or faint?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Chest pain or discomfort?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Sudden trouble seeing in one or both eyes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Pain or discomfort in the arms or shoulder?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Shortness of breath?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Pain or discomfort in the legs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Temperature of 101?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. Which of the following do you think is a symptom of a stroke?

	Yes	No	Don't Know
a) Sudden confusion or trouble speaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Sudden numbness or weakness of face, arm or leg, especially on one side?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Sudden trouble seeing in one or both eyes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Sudden chest pain or discomfort?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Sudden trouble walking, dizziness or loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

of balance?

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| f) Severe headache with no known cause? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Pain or discomfort in the legs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Temperature of 101? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

21. If you thought someone was having a heart attack or a stroke, what is the first thing you would do? (Check all that apply.)

- Take them to the hospital
- Tell them to call their doctor
- Call 911
- Call their spouse or a family member
- Do something else, please specify, _____
- Don't know

Demographics

22. What is your age?

- 18-34 35-49 50-64 65+

23. What is your gender?

- Male Female

24. How much do you weight without shoes? (in pounds)

25. About how tall are you without shoes? (feet/inches)

26. Cultural Wellness Perception Assessment

Please check (✓) the box that best answers each of the following questions.

	Yes	No
Our company is creative and finds new ways to do things.	<input type="checkbox"/>	<input type="checkbox"/>
Senior management takes reasonable "risks" with new ideas.	<input type="checkbox"/>	<input type="checkbox"/>
The community sees our company as a leader in workplace wellness.	<input type="checkbox"/>	<input type="checkbox"/>
Our company recognizes the importance of employees in its success.	<input type="checkbox"/>	<input type="checkbox"/>
Employees believe that management is concerned about health issues.	<input type="checkbox"/>	<input type="checkbox"/>
There is a reasonable amount of trust between employees and management.	<input type="checkbox"/>	<input type="checkbox"/>
Management follows up on new Healthy Lifestyles Programs reasonably well.	<input type="checkbox"/>	<input type="checkbox"/>
Employees usually react well to company incentives.	<input type="checkbox"/>	<input type="checkbox"/>
Incentives offered by the company increase participation in wellness programs.	<input type="checkbox"/>	<input type="checkbox"/>
"New" programs are usually well received by employees.	<input type="checkbox"/>	<input type="checkbox"/>
Employees sometimes bring up health issues and make suggestions to help.	<input type="checkbox"/>	<input type="checkbox"/>
Employees are encouraged to take part in decision-making in some workplace areas.	<input type="checkbox"/>	<input type="checkbox"/>
Our company expects employees to express support and caring for each other.	<input type="checkbox"/>	<input type="checkbox"/>
Money, by itself, is not the only major factor used to make management decisions.	<input type="checkbox"/>	<input type="checkbox"/>
Supervisors are good personal models for wellness issues.	<input type="checkbox"/>	<input type="checkbox"/>
Management frequently does things that show that they value employees.	<input type="checkbox"/>	<input type="checkbox"/>
Management tends to do things that "empower" employees.	<input type="checkbox"/>	<input type="checkbox"/>
The company consistently states concern for employees' health & wellbeing.	<input type="checkbox"/>	<input type="checkbox"/>
Our safety program is more than just a "compliance-oriented" program.	<input type="checkbox"/>	<input type="checkbox"/>
Other employees tend to support the healthy lifestyle practices of their co-workers.	<input type="checkbox"/>	<input type="checkbox"/>

Appendix E

Worksite B: 2008 Confidential Needs & Interest Survey (Fall)

This survey is part of our participation in the Maine CDC/DHHS Cardiovascular Health, Blood Pressure and Cholesterol Pilot program. Please complete the survey and return to the confidential drop box.

For each question below, please indicate how likely you would be to participate in each of the following programs if they were offered at work during the next year? Please check the box that corresponds to your answer.

1. In general what would you say your health is?

- Excellent Very Good Good Fair Poor

2. Compared to one year ago, how would you rate your health in general now?

- Much better than one year ago
 Somewhat better than one year ago
 About the same
 Somewhat worse than one year ago
 Much worse than one year ago

COMMUNICATION WITH DOCTORS

3. When you visit your doctor, how often do you do the following?

	Almost Never	Sometimes	Often	Almost Always
a) Prepare a list of questions for your doctor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Ask questions about the things you want to know about and the things you don't understand about your treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Discuss any personal problems that may be related to your illness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Blood Pressure and Cholesterol Awareness and Confidence in Managing your Health

4. Do you know your blood pressure numbers?

- Yes, it's normal Yes, it is borderline high Yes, it is high No, I don't know

5. Were you told on two or more different visits to a doctor or other health professional that you had high blood pressure?

- Yes
 Yes, but female and told only during pregnancy
 Told borderline high or pre-hypertensive
 No (Skip to Question 9)

Don't know/ Not sure (Skip to Question 9)

6. Are you now doing any of the following to help lower or control your high blood pressure?

	Yes	No	Don't Know
a) Changing my eating habits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cutting down on salt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Reducing alcohol use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Exercising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Taking prescribed medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Has a doctor or other health professional ever advised you to do any of the following to help lower or control your high blood pressure?

	Yes	No	I do not use salt and/or I do not drink	Don't know
a) Change your eating habits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cutting down on salt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Reduce alcohol use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Take prescribed medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Having high blood pressure means doing different tasks and activities to control your condition.

	Not at all confident	Not confident	Neither confident or not confident	Confident	Totally confident
c) How confident are you that you can do all the things needed to manage your high blood pressure on a daily basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) How confident are you that you can do things other than just taking medication to control your high blood pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Do you know your total cholesterol number?

- Yes, it's normal
- Yes, it is borderline high
- Yes, it is high
- No, I don't know

10. Have you EVER been told by a doctor, nurse or other health professional that your blood cholesterol is high?

- Yes
- Told borderline high
- No (Skip to Question 14)
- Don't know/Not sure (Skip to Question 14)

11. Are you now doing any of the following to help lower or control your high blood cholesterol?

	Yes	No	Don't Know
a) Eating fewer high fat or high cholesterol foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Controlling my weight or losing weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Increasing my physical activity or exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Taking prescribed medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Has a doctor or other health professional ever advised you to do any of the following to help lower or control your high blood cholesterol?

	Yes	No	Don't Know
a) Eat fewer high fat or high cholesterol foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Control your weight or lose weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Increase your physical activity or exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Take prescribed medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Having high cholesterol means doing different tasks and activities to manage your condition.

	Not at all confident	Not confident	Neither confident or not confident	Confident	Totally confident
c) How confident are you that you can do all the things needed to manage your high cholesterol on a daily basis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) How confident are you that you can do things other than just taking medication to control your high cholesterol?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signs and Symptoms of Heart Attack & Stroke

14. Which of the following do you think is a symptom of a heart attack?

	Yes	No	Don't Know
a) Pain or discomfort in the jaw, neck or back?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Feeling weak, lightheaded or faint?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Chest pain or discomfort?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| d) Sudden trouble seeing in one or both eyes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Pain or discomfort in the arms or shoulder? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Shortness of breath? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Pain or discomfort in the legs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Temperature of 101? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

15. Which of the following do you think is a symptom of a stroke?

- | | Yes | No | Don't Know |
|---|--------------------------|--------------------------|--------------------------|
| a) Sudden confusion or trouble speaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Sudden numbness or weakness of face, arm or leg, especially on one side? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Sudden trouble seeing in one or both eyes? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Sudden chest pain or discomfort? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Sudden trouble walking, dizziness or loss of balance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Severe headache with no known cause? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Pain or discomfort in the legs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Temperature of 101? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

16. If you thought someone was having a heart attack or a stroke, what is the first thing you would do? (Check all that apply.)

- Take them to the hospital
- Tell them to call their doctor
- Call 911
- Call their spouse or a family member
- Do something else, please specify, _____
- Don't know

Demographics

17. What is your age?

- 18-34 35-49 50-64 65+

18. What is your gender?

- Male Female

19. How much do you weight without shoes? (in pounds)

20. About how tall are you without shoes? (feet/inches)

Appendix F

Evaluation Results Matrix

Question Type	Evaluation Question(s)	Results
	Adoption	
	What percent time does worksite staff spend on pilot activities?	One worksite felt that the amount of time staff spent on pilot activities was appropriate. The other worksite felt that there was not enough time to work on pilot activities.
	What are the costs associated with implementing a pilot worksite BP control initiative?	It was felt that the amount of money provided to the worksites was appropriate and the worksites felt it was sufficient given the amount of work that was required to participate in the pilot.
	Implementation 2.3-2.7	
Intervention description	What elements are necessary to implement a worksite BP/chol pilot?	<p>After the worksites agreed to the requirements stated in the Letter of Agreement, the MCVHP staff met with worksite staff to explain how best to meet the requirements and develop strategies and activities that were thorough and comprehensive. The MCVHP staff provided a significant amount of technical assistance to the worksites, developing a sample pilot work plan that was based on promising practices and included evidence-based resources. MCVHP staff met with worksite staff to tailor and adapt the sample work plan to fit the needs of the worksite.</p> <p>The pilot focused on increasing awareness and implementing changes in policy in the first year and expanding these strategies and activities to self-management and consumer engagement in the second year of the pilot.</p>
Methods/strategies	What is the process for implementing a worksite BP/chol pilot?	<p>Each year the worksites developed an action plan for what they would do related to the prevention, detection and control of HBP. The change that will likely take place after the pilot is that these strategies will not be the sole focus of the employer; rather, they will be part of a larger wellness plan. Both sites have as a central, long-term focus that they will work to make sure that all employees know their blood pressure numbers, either through taking it on their own with an electronic device, having it measured by a trained staff using an appropriate sized cuff, or by participating in a screening. And beyond this, both sites will continue to help those with existing high blood pressure to monitor and control it.</p>
	What state-provided technical assistance is necessary to aid worksites in participating in the pilot?	<p>The MCVHP provided technical assistance (TA) in the form of email communication, telephone calls and in-person visits. TA was provided or offered at least two times per month.</p> <p>Training on accurate blood pressure measurement. This is an important training, and one that gets key staff at the worksite to take blood pressure measurement seriously.</p>

Question Type	Evaluation Question(s)	Results
Facilitators/ obstacles	What facilitators and obstacles occurred while implementing the worksite BP/chol pilot?	<p>The most important facilitator for this pilot is have a dedicated staff person to engage the worksites and facilitate the development and implementation of the work plan. The funds provided were a significant facilitator, as they assisted in the purchase of electronic BP devices, multiple sized cuffs, and related supports.</p> <p>The most important barrier is the economic downturn that is affecting every state in the nation. The budget restraints affect worksite staff time. Worksite staff time if very limited. "People are spread thin. Because of economy employees are doing so much, but they're offering and participating in behavior change programs."</p>
Time/ schedule	Was the timeframe sufficient and realistic?	The two-year timeframe is realistic to make meaningful changes.
Fidelity	To what extent are participating worksites implementing pilot as intended?	To a good extent, maybe 70% of what could have been hoped for. They implemented the easier things like education and awareness raising activities, and did a nice job on the environmental change components, but did not do some of the recommended self-management interventions
	What factors influence worksite participation in the pilot? What factors influence employee participation in the pilot activities/elements?	<p>The Wellness Council of America (WELCOA) was the primary influencing factor for one worksite to participate in the pilot. Top management buy-in is necessary and WELCOA helps to create that.</p> <p>The worksite is really important in influencing employees to participate in pilot activities. They need to promote the activities. Also, since both worksites are manufacturing, it is critical to find ways for employees to participate while they are on the clock, where possible. This is difficult to balance, as there's a concern about negatively impacting productivity. Financial incentives, especially related to off-setting health insurance costs, seem to bring participation up near 100%.</p>
Capacity building 1.0 and 2.3-2.7	To what extent have pilot worksites increased their capacity for prevention and control of BP and chol over the course of participating in the pilot?	Developed a workplace culture where everyone should know their blood pressure and cholesterol numbers either through PCP, HRAs or worksite self-monitoring. One worksite has on-site blood pressure clinic. Both have significantly increased their capacity, by virtue of creating environments that make it easy and convenient to get an accurate BP measurement taken. Both sites have been challenged by the economic downturn, and thus have relatively low staff capacity, so the changes they have made are all that much more powerful.

Effectiveness/ Efficacy		
<i>Short-term outcomes</i>		
Question Type	Evaluation Question(s)	Results
System/policy changes 3.2	What systemic and/or programmatic changes have been made in worksites as a result of the pilot?	<p>Onsite blood pressure devices, staff trained in accurate measurement, multi-sized cuffs, culture and expectation that all employees will know their blood pressure numbers and the importance of blood pressure control through:</p> <ul style="list-style-type: none"> • Regular health checkups from their primary care provider • Participation in Health Risk Appraisals provided by the worksite or • Worksite staff trained in proper blood pressure measurement
Participant knowledge and attitudes 3.3	What changes in knowledge and attitudes have been made in the employees of participating worksites?	<p>Although the numbers are small and did not reach statistical significance, the data suggest a slight increase in knowledge (Worksite A: 89% in 2008, 100% in 2009, and 92% in 2010; Worksite B: 94% in 2008, 95% in 2009, and 97% in 2010).</p> <p>Although not a statistically significant difference, the percent of respondents with high blood pressure reporting they were “confident” or “totally confident” they could do all the things needed to manage their high blood pressure on a daily basis decreased over the course of the pilot (Worksite A: 82% in 2008, 80% in 2009, and 75% in 2010; Worksite B: 75% in 2008, 80% in 2009, and 69.2% in 2010)</p> <p>The percent of respondents with high blood pressure that they had confidence that they could do things other than just taking medication to control their high blood pressure was 71% in 2008, 90% in 2009, and 83% in 2010 at Worksite A and 75% in 2008, 75% in 2009, and 69.3% in 2010 at Worksite B.</p>
<i>Intermediate outcomes</i>		
Participant behavior 3.6	What changes in behavior have been made by employees participating in pilot worksites regarding actions to control blood pressure and cholesterol?	<p>Although the numbers are small and did not reach statistical significance, there does appear to be an increase in the percent of respondents reporting that that they are taking action to control their high blood pressure.</p>
Maintenance		
Sustainability	How replicable and sustainable is the worksite BP & chol pilot?	<p>The major successes of the pilot project (onsite BP devices, staff trained in accurate measurement, multi-sized cuffs) are highly scalable, as they have a low cost, are relatively simple to put in place, do not require full-time wellness staff to manage, and yet can make an impact on knowing and controlling blood pressure.</p>

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- ⁱⁱ Centers for Disease Control and Prevention. 1999. Framework for program evaluation in public health. *MMWR*, 48(No. RR-11).
- ⁱⁱ Adapted from Maine Center for Disease Control and Prevention. 2008. CDC/RTI Promising Practices Research Project. Maine HeartSafe Communities, Summary Report. <http://healthymainepartnerships.org/mcvhp/documents/HSCReport.pdf> (Accessed on December 4, 2008.)
- ⁱⁱⁱ Matson Koffman DM, Goetzel RZ, Anwuri VV, Shore KK, Orenstein D, LaPeir T. Heart Healthy and Stroke Free Successful Business Strategies to Prevent Cardiovascular Disease. *Am J Prev Med* 2005;29(5SI).
- ^{iv} Heaney CA, Goetzel RZ. A Review of Health-related Outcomes of Multi-component Worksite Health Promotion Programs. *AM J Health Prmot* 1997;11(4)290-308.
- ^v Brissette I, Fisher B, Spicer DA, King L. Worksite characteristics and environmental and policy supports for cardiovascular disease prevention in New York State. *Prev Chronic Dis* 2008;5(2). http://www.cdc.gov/pcd/issues/2008/apr/07_0196.htm. Accessed 3/28/08.



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