outside back cover is blank

HEART HEALTHY AND STROKE-FREE IN MAINE

2006 *to* 2010

UPDATED STRATEGIC PLAN FOR CARDIOVASCULAR HEALTH IN MAINE

Healthy Maine Partnerships

Maine Cardiovascular Health Program

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

Maine Cardiovascular Health Council

inside front cover is blank

ACKNOWLEDGEMENTS

The Maine Cardiovascular Health Program, Maine Center for Disease Control and Prevention, and Maine Department of Health and Human Services would like to thank its partners, especially the members of the strategic planning workgroups and the Maine Cardiovascular Health Council, for their assistance in developing this document with goals, objectives and strategies, over the past several months. In particular, we would like to thank Lisa Letourneau, Chair of the Maine Cardiovascular Health Council, and the members of the Goals and Objectives Workgroup: Claudette Bean, Rebecca Drewette-Card, Ruth Dufresne, Patricia Hart, John LaCasse, Edward Trainer, Dennise Whitley, and Debra Wigand for their work shaping the document framework.

This document reflects the thinking of many diverse partners with a concern for cardiovascular health in Maine. It is also a combined effort of the work of the Maine Cardiovascular Health Program staff members, including the work of those within the Maine Center for Disease Control and Prevention, as well as those working at Medical Care Development, Consumers for Affordable Healthcare, and Hart Consulting. We want to acknowledge the work of Rebecca Drewette-Card, Barbara Durand, Elizabeth Foley, Patricia Hart, Danielle Louder, Bethany McCallum, Elizabeth Motyka, Hilary Schneider, Andrew Spaulding, Edward Trainer, and Debra Wigand. Staff members provided support to workgroups and researched promising and best practices for planning, and reviewed drafts of the plan.

We also want to thank Ruth Dufresne, Public Health Consultant, for her attention to detail in translating recommendations and in the shaping of this document into the final product.

Please join with us in working to create a heart-healthy and stroke-free Maine.

TABLE OF CONTENTS

INTRODUCTION

Previous Cardiovascular Health Strategic Planning Efforts

In 2002, the Maine Cardiovascular Health Program and Maine Cardiovascular Health Council jointly released a strategic plan to provide direction for the State of Maine, including the Maine Cardiovascular Health Program and its partners to continue to improve cardiovascular health in Maine. *Heart-Healthy and Stroke-Free in Maine*: *A Strategic Plan for Cardiovascular Health in Maine 2002-2010* outlined the resources, vision, goals, and strategies needed to significantly reduce cardiovascular disease and its associated costs in Maine. *Heart-Healthy and Stroke-Free in Maine* built upon and continued the efforts to improve cardiovascular health in Maine that were begun in the mid-1970s.

Heart-Healthy and Stroke-Free in Maine was intended to be a blueprint for constructing a comprehensive and effective array of interventions to reduce multiple risk factors at the state and community level in workplaces, schools, healthcare, and other community settings. It included eight overarching goals, one for each of the following areas:

- Cardiovascular health,
- Tobacco use,
- Physical activity,
- Nutrition,
- Overweight and obesity,
- High blood pressure,
- High blood cholesterol, and
- Diabetes.

Under each goal, the plan outlined multiple measurable objectives to be addressed for the entire eight-year period (2002-2010). In order to achieve these goals and objectives, the plan included specific short-term strategies based on best practices research. These strategies and interrelated activities were intended to cover the time period 2002-2006, with the plan to review and update them as needed. The strategies were broken down into the following four categories:

- Building partnerships, infrastructure, and scientific capacity to improve cardiovascular health.
- Reducing primary risk factors for cardiovascular disease through social marketing, policy and environmental changes, and community-based primary prevention efforts.
- Strengthening secondary and tertiary prevention of cardiovascular disease through trainings for health professionals.
- Developing appropriate interventions for priority populations in Maine.
- The Maine Cardiovascular Health Program, Maine Cardiovascular Health Council, and partners have accomplished or made strides in the majority of the strategies included in *Heart-Healthy and Stroke-Free in Maine.*

Some key strategies that were implemented during 2002-2005 were:

- Over 800 Good Work! resource kits were distributed to employers.
- Over 200 walking routes were registered on the Healthy Maine Walks Web site.
- Teachers and administrators in 65 elementary schools received training to implement an integrated physical education, nutrition, and health education program for the children.
- Primary care practices were funded to promote clinical office system changes around the cardiovascular health of their patients.
- A stroke survey was piloted.
- Over 19,000 Stroke Awareness Campaign pieces were disseminated throughout various settings in Maine.
- Five Healthy Maine Partnerships implemented 21 community-based strategies to increase signs and symptoms awareness and timely access to 9-1-1 for heart attack and stroke.

There's still work to be done to realize our Vision – Heart-Healthy and Stroke-Free in Maine!

- Cardiovascular disease is the leading cause of death in Maine. One in three Maine residents dies from cardiovascular disease.
- In 2002, cardiovascular disease accounted for $474 million in hospital charges, or 24% of all Maine hospital charges.
- In Maine, about 26% of the population reports that they have hypertension and about 33% reports that they have high blood cholesterol, strong independent risk factors for cardiovascular disease.

For a complete description of the problem of cardiovascular disease in Maine, please see *The Burden of Cardiovascular Disease in Maine.* (Maine Cardiovascular Health Program, Maine Center for Disease Control and Prevention. Spring 2006.)

New U.S. Centers for Disease Control and Prevention Priorities

The Centers for Disease Control and Prevention, Division of Heart Disease and Stroke Prevention have highlighted six priorities for state heart disease and stroke programs. They are:

- Control high blood pressure
- Control high cholesterol
- Know the signs and symptoms of heart attack and stroke and the need to call 9-1-1
- Improve emergency response
- Improve quality of care
- Eliminate disparities

These new priorities reflect the need to address the spectrum of disease prevention, treatment, and control. Many state-level programs and other state partners address the prevention of cardiovascular disease risk factors (increased physical activity, proper nutrition, and tobacco prevention and control). The 2006-2010 strategies will focus on partnering to address these risk factors and expanding to reflect a comprehensive view of cardiovascular disease and the Maine Cardiovascular Health Program's increasing work in the areas of secondary and tertiary prevention.

Current Cardiovascular Health Strategic Planning Efforts

The Maine Cardiovascular Health Program recruited key partners to participate in a Goals and Objectives Workgroup. This workgroup reviewed the current state Cardiovascular Health goals and objectives and updated them to address a more comprehensive view and changes in the U.S. Centers for Disease Control's and the Maine Cardiovascular Health Program's new mission. The goals and objectives were developed in concert with Healthy Maine 2010 and other state-level health plans.

The Maine Cardiovascular Health Program and Maine Cardiovascular Health Council then invited partners to participate in a stakeholder's meeting where partners were informed of the new Maine Cardiovascular Health Program goals and objectives and asked to create strategies for 2006-2010 to achieve these goals and objectives. The Maine Cardiovascular Health Program and Maine Cardiovascular Health Council sought a diverse group of participants, as the promotion and realization of these goals will require the participation and collaboration of many partners throughout the state. The ability to partner effectively with other individuals and organizations will be absolutely essential to doing the work of building heart-healthy and stroke-free communities. Partner collaboration on the development of future strategies is necessary to create strategies that are relevant, timely, and reflect the efforts of the many stakeholders across the state.

Workgroups and Participants

The Maine Cardiovascular Health Program recruited partners to participate in this strategic planning effort. Partners could select their level of participation: full or limited participation. Full participants served as workgroup members to develop draft strategies. Workgroups met in person or via conference call three to four times. Approximately 70 public health and health care professionals actively participated in these work groups, providing valuable feedback and professional guidance. (See Appendix A for a list of participants.) Each workgroup was diverse and had broad representation. Limited participants reviewed specific workgroup strategies and a draft of the strategic plan. Twenty-seven health professionals participated in this capacity.

Maine Cardiovascular Health Program staff developed the following work groups: Clinical Office Systems, Community, Emergency Response Systems, Hospital Systems, and Worksite.

The Clinical Office Systems Workgroup developed ideas for further quality improvement across a range of areas in the clinical practice. Delivery of health care for patients with chronic illnesses is complex. Addressing changes at a systems level will enhance the use of evidence-based guidelines and resources in the care and treatment of patients with cardiovascular disease and cardiovascular disease risk factors. Systems must address the management of cardiovascular-related conditions (e.g., hypertension and high cholesterol) and the management of risk factors (e.g., lack of physical activity, obesity) as well as the provision of clinical preventive services.

The Community Workgroup developed strategies to better address the intersection between the community and the healthcare system. The community has a crucial role in helping Maine achieve its vision of becoming Heart-Healthy and Stroke-Free. The community (consisting of locally based public, private, and nonprofit organizations, and schools) provides information, education, support, and direct services that are a critical component of the public health system and the Planned Care Model.

The Emergency Response Systems and Hospital Systems workgroups reviewed current capacity and existing challenges and opportunities around cardiovascular health systems, pathways, education, and awareness as it pertains to the pre-hospital and hospital environments respectively.

The Worksite Workgroup focused on the resources, programs, and services available in Maine and how to best utilize them to develop strategies that: 1) promote and support cardiovascular health promotion behaviors; 2) identify and manage employee health risks; and 3) support disease management through worksite policies, environmental supports, and education to enhance environments for heart and stroke health. Employee health encompasses a variety of worksite-based initiatives to promote and support healthy

behaviors and identify and manage employee health risks. Workgroups focused on environmental, systems, and program changes to:

- Improve cardiovascular health,
- Control high blood pressure and high cholesterol,
- Increase awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1,
- Improve emergency response and the quality of cardiovascular health care, and
- Eliminate disparities in cardiovascular health.

Strategy Development

All workgroups were given the task of creating strategies that addressed the new U.S. Centers for Disease Control and Maine Cardiovascular Health Program priorities, multiple settings and levels of society, all levels of prevention, and the continuum of care. In addition, workgroups were given the most current Cardiovascular Health and Cardiovascular Disease data from *The Burden of Cardiovascular Disease in Maine.* (Maine Cardiovascular Health Program, Maine Center for Disease Control and Prevention. September 2005.)

Multiple Settings and Levels of Society

Research shows that cardiovascular health promotion activities are most effective if they are delivered at multiple settings such as in schools, communities, worksites, and healthcare settings and at multiple levels of society such as at the individual, interpersonal, organizational, community, and policy levels.

Effective primary prevention strategies include not only those that increase education and awareness of issues but also those that look at the physical, social, and political environment in which people live. Implementing strategies to make the environment more supportive of a healthy lifestyle, i.e., reducing barriers and making healthy choices more available, is an effective way to promote health. This health promotion strategy is called the Socio-ecological Model (McLeroy, 1988). This model is based on the view that individuals do not live in a vacuum, and are very much a product of the environments in which they live, work, go to school, and play. The individual is influenced by ever-widening spheres of influence:

- Interpersonal – comprised of family, friends and social networks;
- Organizational – including organizations and social institutions;
- Community – including relationships among organizations; and
- Policy – comprising national, state, and local laws and regulations.

Individuals are influenced by these spheres and to make effective and sustained behavioral changes, individuals must be supported in the broader community in which they live.

Figure 1: Socio-Ecological Model

It is not enough to provide individuals with information and an opportunity to build skills. Individuals are not likely to make behavior changes that are contrary to the environment in which they live and work. It is important to make changes in community, school, healthcare and worksite policies, environments and systems, to support individuals adopting healthier behaviors on a population-wide basis (Schmid, 1995). Examples of this broader approach include town planning efforts to provide easy access to walkable areas, worksites that offer opportunities for physical activity, partnerships with food services to assure easy access to low-cost, tasty, and nutritious foods, designing healthcare systems that promote highly effective and efficient care, and policies to promote smoke-free public indoor and outdoor environments.

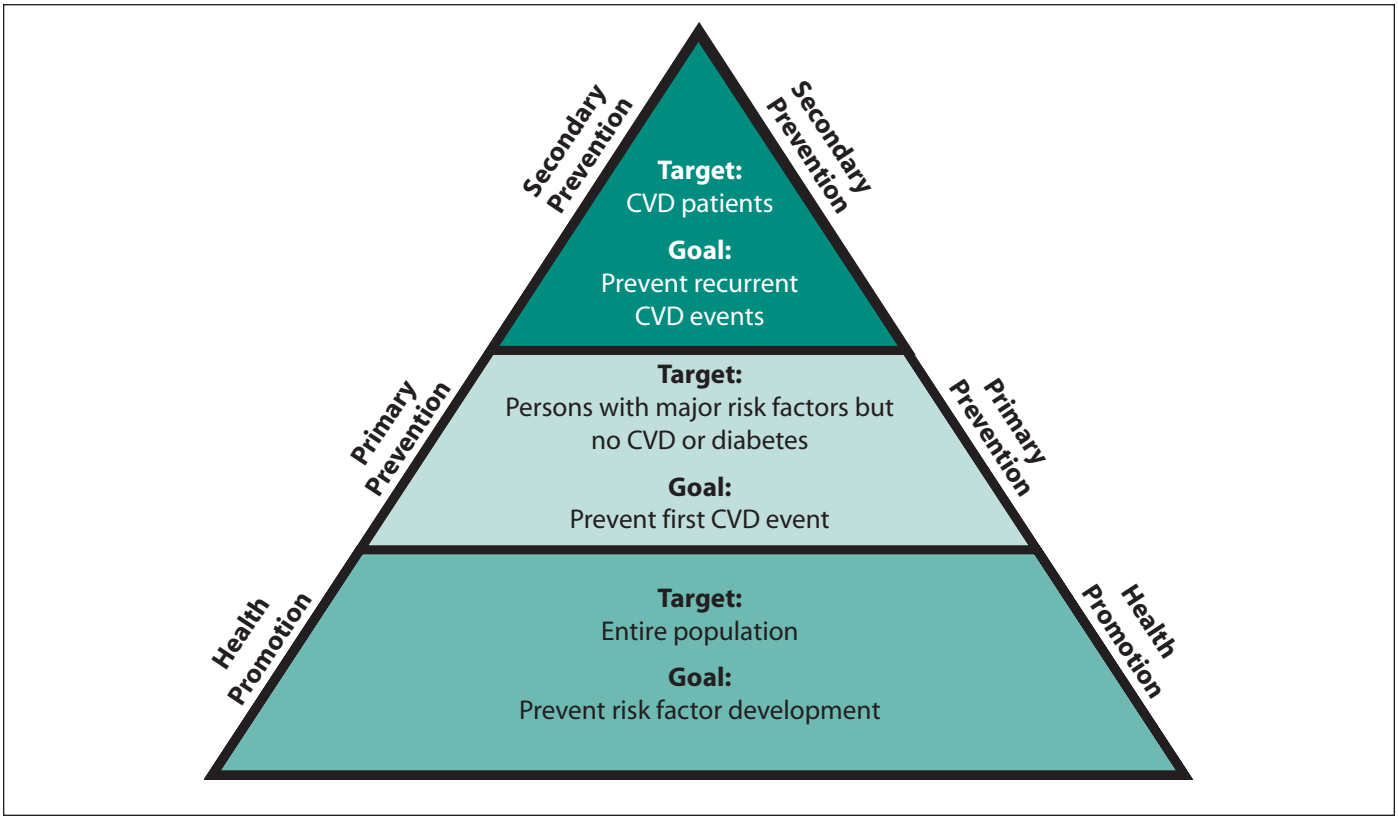
Multiple Prevention Levels

The major modifiable behavioral risk factors – tobacco use, physical inactivity, poor nutrition, overweight and obesity, and the major biological risk factors of high blood pressure, high blood cholesterol, and diabetes – are most effectively addressed through population-based prevention and health promotion and secondary prevention efforts delivered at multiple settings, such as communities, schools, worksites and healthcare settings.

Addressing acute care of heart disease and stroke and optimizing quality of life for those with known cardiovascular disease must be accomplished by partnering with organizations in multiple settings, as well as a focus on collaborations with insurers, professional groups, and healthcare organizations to improve systems for secondary and tertiary prevention and management.

Effective prevention efforts balance long-term with short-term investments. They focus on producing long-term risk reductions for the entire population, reducing risk in those who are at risk due to factors such as high blood pressure, high blood cholesterol, or diabetes, and reducing disease and further risk in those who have cardiovascular disease. This plan proposes a variety of strategies for primary, secondary, and tertiary cardiovascular disease prevention and management, including community partnerships; policy and environmental changes; public education and awareness; technical assistance and training in best practices; and tailoring population-based efforts to fit the needs of priority populations.

Figure 2: Prevention Levels

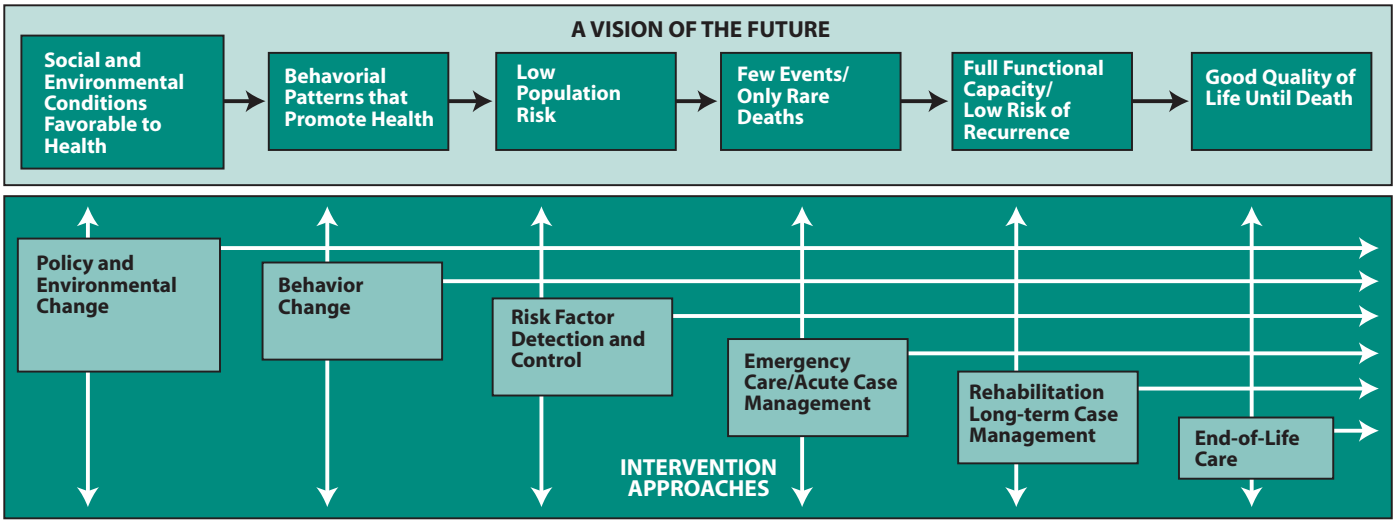


Source: CDC, Division of Heart Disease and Stroke Prevention

Continuum of Care

One of the fundamental underpinnings of this plan is that there is a continuum of care for cardiovascular disease that addresses prevention, detection and treatment, and involves community organizations, primary care providers, hospitals and emergency response. Because an individual with cardiovascular disease will utilize each of these partners' services at varying times in their disease progression, it is important that these settings are connected to one another and offer people a continuum of care.

Figure 3: Continuum of Care



Source: A Public Health Action Plan to Prevent Heart Disease and Stroke; Centers for Disease Control and Prevention, American Heart Association, American Stroke Association, Association of State and Territorial Health Officials.

The Care Model or Planned Care Model

The Care Model identifies the essential elements of a healthcare system that encourage high-quality chronic disease care. These elements are the community, the health system, self-management support, delivery system design, decision support and clinical information systems. Evidence-based change concepts foster productive interactions between informed patients who take an active part in their care and providers with resources and expertise. The model can be applied to a variety of chronic illnesses. The bottom line is healthier patients, more satisfied providers, and cost savings. *[Improving Chronic Illness Care (ICIC) is a national program supported by The Robert Wood Johnson Foundation. http://www.improvingchroniccare.org/change/model/components.html.]*

VISION, ULTIMATE HEALTH OUTCOMES, GOALS, OBJECTIVES, AND STRATEGIES

The vision and ultimate health outcomes that were developed in 2002 by statewide cardiovascular health stakeholders continues today.

- **Vision:** *Heart-Healthy and Stroke-Free in Maine*
- **Ultimate health outcomes:** Reduce death and disability due to heart disease and stroke

Goals, objectives, and strategies provide us with a roadmap to guide our cardiovascular health efforts. For each goal there are related objectives to achieve the goal. The Maine Cardiovascular Health Program and its partners did their best to develop objectives that were SMART: Specific, Measurable, Achievable, Realistic, and Time-phased. Workgroups developed strategies to achieve the objectives. When developing strategies, workgroups considered which strategies are most effective, based on best practices or evidence-based; whether strategies already existed to achieve some objectives; whether partners were already doing some strategies; whether strategies were population-based and culturally appropriate; which strategies were most do-able or most important; what partners were willing to implement this strategy; and did strategies address cross-cutting issues such as policy, disparities, self-management, awareness and education, and quality care.

In many cases, workgroups were able to achieve a greater level of detail and listed activities that various partners could conduct to achieve a strategy. Whenever a partner committed to perform a particular activity, the organization is listed below that activity. A timeline is included and strategies and activities are listed as:

- Short-term – to be implemented within the next year
- Intermediate – to be implemented within two to five years
- Long-term – to be implemented within five to ten years

If the timeline is written in teal, partners deemed it a priority strategy or activity and implementation is to begin immediately, even if listed as long-term. Potential collaborators have been listed for strategies and activities whenever workgroup members knew of potential partners that would be helpful and appropriate to collaborate with on a particular strategy or activity. In order to achieve the strategies and activities outlined in this plan, the work of many collaborators and partners will be needed. Only with a concerted effort by many will a heart-healthy and stroke-free Maine be realized.

VISION AND ULTIMATE HEALTH OUTCOMES

- **Vision:** *Heart-Healthy and Stroke-Free in Maine*
- **Ultimate health outcomes:** Reduce death and disability due to heart disease and stroke

Cardiovascular Disease

Outcome 1: By 2010, decrease the number of cardiovascular disease deaths from 329.4/100,000 in 1998 to no more than 263/100,000.

(CVH Plan)

Heart Disease

Outcome 2: By 2010, decrease the number of deaths before age 65 years attributable to diseases of the heart from 13.5% of total deaths in 1999 to 12% of total deaths.

(The Burden of Heart Disease and Stroke in the United States: State and National Data, 2004.)

Outcome 3: By 2010, decrease coronary heart disease deaths from 187.5/100,000 in 1998 to 166.0/100,000.

(HM2010)

Outcome 4: By 2010, decrease the prevalence of coronary heart disease in Maine from 7.9% in 1999 to 7.5%.

(The Burden of Heart Disease and Stroke in the United States: State and National Data, 2004.)

Stroke

Outcome 5: By 2010, decrease stroke deaths from 55.5/100,000 in 1998 to 51.0/100,000.

(HM2010)

Outcome 6: By 2010, decrease the number of deaths before age 65 years attributable to stroke from 8.3% of total deaths in 1999 to 7.5% of total deaths.

(The Burden of Heart Disease and Stroke in the United States: State and National Data, 2004.)

GOAL 1

Optimize Statewide Capacity to Improve Cardiovascular Health and Prevent and Control Cardiovascular Disease

This goal addresses the need for capacity at the state level to promote cardiovascular health and prevent and manage cardiovascular disease. This includes state-level partnerships on initiatives, surveillance, research, and evaluation. Although building capacity is more difficult to measure on a statewide level than some of the other goal areas in this plan, it is possible to determine and have a general sense as to whether capacity is in fact increasing. The Maine Cardiovascular Health Program has programmatic indicators specific to this program to measure whether they are successfully building capacity at the program level.

Objective 1.01: By 2010, expand, increase and strengthen collaborative efforts with partners to promote cardiovascular health.

No.	Strategies for Objective 1.01	Timeline	Potential Collaborator(s)
1	Work with a diverse group of state- and local-level partners in healthcare, community and worksite settings to achieve CVH goals and objectives. (Refer to Appendix B for a list of partners.) **Activity:** • Use the Strategic Plan for Cardiovascular Health in Maine to inform other planning processes, such as the State Health Plan. Responsible Partner(s): MCVHP • Convene the Chronic Care Collaboration Group at least annually to inform leaders in chronic disease. Responsible Partner(s): MCHC • Facilitate partnerships and information sharing among healthcare, community organizations, and worksites statewide. Responsible Partner(s): MCVHP • Utilize meetings of state-level professional organizations to identify opportunities for collaboration. Responsible Partner(s): MCVHP • Update partner organizations on relevant activities. Responsible Partner(s): MCVHP	Short-term to Intermediate	MDCPC*, ME CDC, OSA, DOE, EMS, local SADs, MQF, state and local health organizations, health systems, MCWW

No.	Strategies for Objective 1.01	Timeline	Potential Collaborator(s)
2	Support the current worksite wellness council structure by formally linking entities working on worksite wellness. **Activity:** • Formalize the structural link between the worksite wellness council and the Maine Cardiovascular Health Council and expand this link to include the Maine Coordinated School Health Program. Responsible Partner(s): MCVHP • Develop partnerships with employer-focused systems (human resources, safety, workers compensation, insurance brokers, occupational health, and member organizations).	Short-term	Regional and local WWCs HMPs, employers, insurers, DOE
3	Increase the number of partners who commit to implementing strategies outlined in the Strategic Plan for Cardiovascular Health in Maine. **Activity:** • Invite and encourage organizations to participate in a CVH strategic planning process. Responsible Partner(s): MCVHP, MCHC • Enlist partners to take responsibility for implementing strategies and take lead in doing so when applicable. Responsible Partner(s): MCVHP • Develop and expand state- and local-level partnerships with formal memorandums of understanding. Responsible Partner(s): MCVHP	Short-term	MCHC, Partners
4	Increase and strengthen partnerships between cardiovascular health community resources and healthcare providers/systems. **Activity:** • Convene a CVH Summit on chronic disease self-management. Responsible Partner(s): MCHC • Convene state-level meetings to share collaborative success stories. Responsible Partner(s): MCHC, MCVHP • Identify and promote examples of successful community-provider collaborations. • Pilot and implement a formal system to increase communication and collaboration around CVD.	Short- to Long-term	HMPs, health systems, QC

Objective 1.02: By 2010, increase the capacity for technical assistance and professional education in cardiovascular disease prevention, treatment, and control.

No.	Strategies for Objective 1.02	Timeline	Potential Collaborator(s)
1	Develop additional capacity for technical assistance at the state and local level for supporting worksites and healthcare settings in implementing CVH promotion programs.	Short-term	HMPs, health systems, QC
2	Provide continuing education and training to worksites and health professionals on CVD prevention, treatment and control; patient counseling and patient self-efficacy; guidelines; protocols; telemedicine; and public health concepts such as social marketing, health education, and health promotion. **Activity:** • Investigate the potential for a statewide practice manager forum to meet regularly and provide an opportunity for discussion and continuing education. • Explore offering team trainings to clinical practices on CVD. • Develop and implement professional education opportunities for employers, health professionals, and health care providers on worksite CVH promotion. Responsible Partner(s): MCHC and MCVHP	Short-term to Intermediate	MQF, MCHC health systems, QC
3	Establish relationships with graduate, medical, continuing, and vocational education programs to assess CVH components of curricula. Explore opportunities to develop and add curriculum based on current guidelines, evidence-based practices and the Planned Care Model.	Long-term	

Objective 1.03: By 2010, increase the capacity for surveillance, research, and evaluation in cardiovascular disease prevention, treatment and control.

No.	Strategies for Objective 1.03	Timeline	Potential Collaborator(s)
1	Increase surveillance capacity to capture cardiovascular disease burden and guide quality improvement. **Activity:** • Identify gaps in data between the Strategic Plan for Cardiovascular Health in Maine and the State Health Plan. • Assemble a group to inventory CVH/CVD data sets, identify current data sources, use of data, and additional data needed for CVD prevention and control surveillance. • Investigate the development of recommended common data sets and common collection points. • Ensure that Maine initiatives are collecting standard CVD data. • Research adding questions on youth surveys about signs and symptoms of heart attack and stroke, the need to call 9-1-1 and high blood pressure and cholesterol. • Share findings from data, such as hospital/provider/community screening programs.	Short-term to Intermediate	Franklin County CVH Taskforce; MHIC, MHDO, MHMC, St. Mary's Screening Program, ME Heart Ctr, Acadia – Mental Health, UNE/Ctr. for Intercultural Health, Ctr. for Comm. Inclusion, ME Care, MCHC, MQF
2	Increase research capacity in cardiovascular health within the state. **Activity:** • Inventory state and national funding resources available to address CVH/CVD research and disseminate information to interested parties. • Identify and draft potential research opportunities.	Long-term	Muskie, UNE, MHIC
3	Track and assess CVD metrics on heart attack and stroke to identify current challenges and opportunities to improve acute and sub-acute care. **Activity:** • Investigate the feasibility of making heart attack and stroke reportable conditions to facilitate better analysis of emergency response.	Intermediate	

No.	Strategies for Objective 1.03	Timeline	Potential Collaborator(s)
4	Secure data-sharing agreements with partners so more comprehensive CVH/CVD data can be available to a wider audience to improve quality of care. **Activity:** • Expand cooperation with the Maine Health Data Organization and the Maine Quality Forum and increase utilization of these resources. • Work closely with local, state, and national collaboratives and other data reporting entities to increase the collection of common cardiovascular data sets. • Follow progression of Maine Health Information Network Technology (MHINT) efforts and advocate for CVH inclusion. • Endorse the use of public reporting on statewide patient outcomes data.	Short-term	MHDO, MQF, MHMC PTE
5	Create and recommend a standard data set of CVD measures. **Activity:** • Research existing CVD measures, including those referenced in peer reviewed journals, recommended by clinical associations and governing bodies (i.e., CDC, AHA, JCAHO), and those measures used in clinical practice.		
6	Implement and update the MCVHP Evaluation Plan. **Activity:** • Disseminate to interested parties. Responsible Partner(s): MCVHP • Use to inform statewide activities. Responsible Partner(s): MCVHP	Short- to Long-term	

Objective 1.04: By 2010, increase the number and scope of state- and local-level policies and environmental changes that promote cardiovascular health and prevent and control cardiovascular disease.

No.	Strategies for Objective 1.04	Timeline	Potential Collaborator(s)
1	Educate and support the public to develop and initiate state- and local-level CVH policies. **Activity:** • Use Action Packets and other resources to guide policy development. • Educate policy makers, state and community health organizations, and the public on CVH issues and specific policies. • Advocate for relevant CVH policies and explore enforcement	Short-term to Intermediate	MCVHP HMPs, MCHC, AHA
2	Develop a formal adoption process for Heart Month and Stroke Month in Maine. **Activity:** • Investigate other state processes and the feasibility of legislation to recognize. • Ask the governor to sign resolutions recognizing heart month and stroke month.	Intermediate	AHA/ASA

GOAL 2

Prevent Development of Risk Factors*

* Cardiovascular disease risk factors: physical inactivity, poor nutrition, tobacco use, overweight and obesity, high blood pressure, high blood cholesterol, diabetes, family history, and age.

This goal focuses on the need to prevent cardiovascular risk factors, specifically, increasing physical activity, increasing consumption of fruits and vegetables, and decreasing consumption of high-fat foods, reducing overweight and obesity, and preventing cigarette smoking and promoting smoking cessation. Maine is fortunate to have a Physical Activity and Nutrition Program and the Partnership for a Tobacco-Free Maine. These partners lead the state initiatives in these areas. The Physical Activity and Nutrition Program and Partnership for a Tobacco-Free Maine plans have a comprehensive and broad range of strategies that pertain to cardiovascular health. Please refer to these plans for a complete listing of strategies related to physical inactivity, poor nutrition, tobacco use, overweight, and obesity. Below is a summary of these objectives and strategies specific to cardiovascular health. The Maine Cardiovascular Health Program or its partners will take responsibility for achieving some of these activities.

The strategies and activities listed in Goal 3 for controlling cardiovascular disease risk factors are also relevant to preventing the development of additional cardiovascular disease risk factors. Please refer to this section for strategies to control cardiovascular disease risk factors. Objectives 2.01-2.10 are addressed in the Physical Activity and Nutrition Plan and Tobacco Control Plan. Please refer to these plans for additional strategies to achieve these objectives.

Physical Inactivity

Objective 2.01: By 2010, increase the proportion of youth, grades 9-12, who participate in moderate physical activity for at least 30 minutes on five or more of the previous seven days from 32.7% in 1999 to 40%.

(Maine Youth Risk Behavior Survey, Maine Department of Education)

Objective 2.02: By 2010, reduce the proportion of adults who engage in no leisure-time physical activity from 26% in 2002 to 20%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Poor Nutrition

Objective 2.03: By 2010, increase the proportion of youth, grades 9-12, who consume five or more servings of fruits and vegetables daily from 26.7% in 1999 to 35%.

(Maine Youth Risk Behavior Survey, Maine Department of Education)

Objective 2.04: By 2010, increase the proportion of adults who consume five or more servings of fruits and vegetables daily from 26.4% in 1999 to 30%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Overweight and Obesity

Objective 2.05: By 2010, reduce the proportion of high school youth who are at risk for overweight from 14.5% in 2001 to 10%.

(PAN Plan)

Objective 2.06: By 2010, reduce the proportion of high school youth who are overweight from 10.4% in 2001 to 5%.

(PAN Plan)

Objective 2.07: By 2010, decrease the proportion of the adult population who are overweight from 37% in 1998 to 30%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Objective 2.08: By 2010, decrease the proportion of the adult population who are obese from 17% in 1998 to 15%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Tobacco

Objective 2.09: By 2010, reduce cigarette smoking prevalence among youth, grades 9-12, from 28.6% in 1999 to 15%.

(Maine Youth Risk Behavior Survey, Maine Department of Education)

Objective 2.10: By 2010, reduce the prevalence of cigarette smoking among all adults, ages 18 and older, from 22.9% in 1998 to 19%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

No.	Strategies for Objective 2.01-2.10	Timeline	Potential Collaborator(s)
1	Provide advocacy and support for ongoing implementation of the Maine PANP and PTM Plans.	Short-term	MCVHP, AHA
2	Develop a database on existing programs for identifying and controlling risk factors among youth with the expectation of generating promising practices and encouraging implementation of these programs.	Intermediate	MCPH, PANP, youth organizations, universities
3	Encourage schools to conduct risk assessments and screenings (including BMI) through school nurses, school health coordinators, and school-based health centers (where available). **Activity:** • Provide professional development opportunities around policy development, BMI protocols, family education and involvement, and evaluation skills.	Short-term	DOE, MCPH Youth Overweight Collaborative
4	Encourage primary care practices to measure BMI and monitor BMI as a vital sign.	Short-term	MCPH's Youth Overweight Collaborative, health systems

GOAL 3

Identify and Control Risk Factors*

* Cardiovascular disease risk factors: physical inactivity, poor nutrition, tobacco use, overweight and obesity, high blood pressure, high blood cholesterol, diabetes, family history, and age.

This goal addresses the need to identify and appropriately treat risk factors once they have developed. In particular, this goal addresses high blood pressure, high cholesterol, and diabetes as risk factors for cardiovascular disease. The strategies for nutrition, physical activity, and tobacco prevention used to prevent risk factors from developing can also be used to control these same risk factors. Please refer to Goal 2, as these strategies to address underlying health behaviors are critical to the control of high blood pressure, high blood cholesterol, and diabetes.

Many of the strategies listed in Goal 1 to build capacity in cardiovascular health apply to identifying and controlling risk factors. Please refer to this section for strategies to increase resources, technical assistance, professional education, evaluation and surveillance capacity in cardiovascular health.

Objective 3.01 (Developmental): By 2010, explore other contributing risk factors for heart disease.

No.	Strategies for Objective 3.01	Timeline	Potential Collaborator(s)
1	Identify and research other contributing risk factors for heart disease such as stress, mental health, and alcohol.	Intermediate	MCVHP
2	Develop and implement a project with Maine Office of Substance Abuse sites to encourage people with high blood pressure to follow their doctor's advice to reduce alcohol consumption.	Long-term	EAP, Behavioral Health, MEAPS, insurers
3	Investigate the connection between depression, cardiovascular disease, and health outcomes.	Intermediate	Behavioral Health

High Blood Pressure

Objective 3.02: By 2010, decrease the proportion of adults who have ever been told their blood pressure is high from 26.7% in 1999 to 20.0%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Objectives 3.03–3.07: By 2010, increase the proportion of adults who have been told their blood pressure is high and are following their healthcare provider's advice to reduce their risk of heart disease or stroke by:

- **Exercising more, from 82% in 2004 to 87% (3.03);**
- **Cutting down on salt/sodium intake from 93% in 2004 to 98% (3.04);**
- **Controlling or losing weight from 87% in 2004 to 92% (3.05);**
- **Taking prescribed medication from 92% in 2004 to 97% (3.06); and**
- **Cutting down on alcohol from 81% in 2004 to 86% (3.07).**

(Maine Adult Tobacco Survey 2004, CVH Module, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Objective 3.08: By 2010, increase the number of hospitals in Maine that offer free blood pressure screening with referral to the public from 25 to 38 (out of the potential 38 non-institutional hospitals).

(Environmental Indicator Survey 2004)

High Blood Cholesterol

Objective 3.09: By 2010, increase the proportion of adults in Maine who have had their blood cholesterol checked within the preceding five years from 73.3% in 1999 to 80.0%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Objective 3.10: By 2010, decrease the proportion of adults who have ever been told their blood cholesterol is high from 31.2% in 1999 to 29%.

(Maine Behavior Risk Factor Survey, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Objective 3.11–3.14: By 2010, increase the proportion of adults who have been told their cholesterol is high and are following their healthcare provider's advice to reduce their risk of heart disease or stroke by:

- **Increasing physical activity from 86% in 2004 to 91% (3.11);**
- **Eating fewer high-fat, high-cholesterol foods from 90% in 2004 to 95% (3.12);**
- **Controlling or losing weight from 87% in 2004 to 92% (3.13); and**
- **Taking prescribed medication from 84% in 2004 to 87% (3.14).**

(Maine Adult Tobacco Survey 2004, CVH Module, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Objective 3.15: By 2010, increase the number of hospitals in Maine that offer free blood cholesterol screening with referral to the public, from 27 in 2004 to 30 (out of the potential 38 non-institutional hospitals).

(Environmental Indicator Survey 2004, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

No.	Strategies for Objectives 3.02-3.15	Timeline	Potential Collaborator(s)
1	Develop a statewide inventory and clearinghouse of cardiovascular health services, resources, and promising or best practices to address cardiovascular disease and self-management. Responsible Partner(s): MCVHP **Activity:** • Connect statewide inventory with local health organizations and their resources.	Intermediate and Long-term	MCWW, PANP, MNN, MHMC/HART Group, WWCs, Chamber, Prof. Assoc., Occ. Health and Safety, ME Safety Council, CHSP, MCHC
2	Disseminate resources for CVH-related information to state and local partners through state and local health organizations, affiliations, trade groups, and municipal and coalition Web sites. **Activity:** • Ensure local healthcare providers and pharmacies are knowledgeable about resource availability. • Develop resource packets for patients to be distributed through healthcare provider offices and at worksites. • Explore the use of hotlines and 800 numbers to disseminate information. Assess present hotlines and feasibility of including CVH-related resources.	Intermediate and Long-term	MQF, MHMC, MPCA
3	Educate the public on CVH risk factor identification, control, and self-management. **Activity:** • Conduct public education campaigns through earned and unearned radio and print media, local leaders, worksite promotion (businesses, schools, civic organizations), and local events. • Provide public education resources to community health organizations. • Identify people who have been involved in CVD rehabilitation or support groups and can become community leaders/advocates for CVD risk assessment and follow-up. • Incorporate evidence-based or best practices for CVH education into worksite wellness programs. • Create programs on local access cable TV.	Short-term to Intermediate	PANP, Governor's Council on PFSH and W, pharmaceutical companies, insurance providers, Heart Safe Communities, AHA

No.	Strategies for Objectives 3.02-3.15	Timeline	Potential Collaborator(s)
	• Investigate the implementation of a "model behavior" program that targets opinion leaders (health care and EMS providers, teachers, etc.) as role models to reduce their own CVD risks. • Responsible Partner(s): ME CDC • Use health communication and social marketing initiatives to motivate the public to use self-management techniques and to encourage primary care practices to engage their patients in self-management programs.		
4	Design and implement community-based programs for CVD self-management that meet local needs. **Activity:** • Identify and promote existing successful pilot projects or initiatives in chronic disease self-management. • Investigate Cigna and City of Portland programs that have recently been implemented to assess successes and feasibility of replicating. • Develop and implement a pilot community health worker or "health coaches" program for patients with CVD that is linked to a primary care practice. Encourage a multidisciplinary approach to patient care, that supports self-management and encourages patient follow-up with healthcare professionals. • Investigate the use of an embedded behavioral clinician to support the healthcare team and patients. Assess whether this position could oversee a community health worker program within the clinical practice or regionalized area. • Advocate for the development of comprehensive community health networks similar to the Franklin County model for CVH. • Identify and support organizations that train community outreach workers to educate/coach people to control their risk factors according to best practices.	Intermediate	
5	Provide resources for those in need of CVD self-management. **Activity:** • Promote the use of Healthy Maine Walks and other state-level physical activity resources for controlling risk factors. • Create connections at the local level to forge alliances with private sector institutions like CURVES, YMCA, restaurants and grocery stores, pharmacies, other businesses, and municipal recreation departments to create CVD self-management programs. • Promote local resources and 211. • Integrate blood pressure and blood cholesterol awareness initiatives into community-based physical activity programs such as YMCA/YWCAs.	Short-term	PANP, MCVHP, HMPs, Prof. medic. assoc., youth and health advocacy orgs and networks MNN

No.	Strategies for Objectives 3.02-3.15	Timeline	Potential Collaborator(s)
	• Encourage dieticians to work with local restaurants and grocery stores to provide relevant nutrition information, highlighting healthy foods for prevention and control of heart disease and stroke.	Short-term	
6	Offer screening programs by community health organizations that are based on evidence-based practices, accurately identifying risk factors and ensuring appropriate referral and follow-up care throughout the continuum.	Intermediate to Long-term	HMPs
7	Identify the most common barriers to blood pressure and cholesterol prescription adherence and develop a proposal to address them.	Intermediate	
8	Develop and implement worksite CVH promising and best practices. **Activity:** • Develop additional resources for the Good Work! resource kit that is used by Maine worksites to support identification and management of high cholesterol and blood pressure. • Investigate and review the health risk appraisals (HRAs) in use in Maine to determine which recommended CVD measures (from Objective 1.03.05) are in use. Responsible Partner(s): MCVHP • Develop a resource listing of providers of HRA, screenings, and follow-up services. • Offer educational programs to employers, employer systems, providers and health plans on health risk appraisals (HRA), biometric screenings and follow-up and on the CDC toolkit "Making the Business Case to Employers for CVH." • Develop success stories and company profiles of ways employers identify and control high blood pressure and cholesterol and create a framework to recognize distinguished employer-sponsored worksite health promotion programs. • Encourage the use of management performance objectives for worksite wellness that are linked to initiatives to prevent, identify and control CVH risk factors.	Intermediate	Chambers, ME Small Business Alliance, Regional Wellness Councils
9	Use strategic partnerships to promote use of policy and environmental change, awareness, education, benefits enhancement, and other initiatives designed to prevent, identify, and control CVH risk factors in the worksite setting. Responsible Partner(s): MCVHP	Short- to Long-term	MQF, HMPs

No.	Strategies for Objectives 3.02-3.15	Timeline	Potential Collaborator(s)
	Activity: • Partner with the Maine Quality Forum and the Maine Council for Worksite Wellness to develop and promote a recognition program for businesses that have CVH promotion programs. • Work with state partners to develop incentives (including financial) for businesses to participate in the recognition program.		
10	Develop and disseminate primary care practice information kits on community resources for identifying and controlling cardiovascular risk factors. **Activity:** • Work with healthcare providers and insurers to create support systems and materials Re: assessment and management of CVH risks.	Intermediate	Professional associations, health systems, QC
11	Develop methods to increase primary care practice referral of patients with CVD risk factors to community resources. **Activity:** • Identify local clinical champions (physicians, nurse practitioners, physician assistants) as representatives to build relationships and connections with community and civic organizations. • Leverage physician support to address community connections and patient supports. • Pilot a referral program connecting primary care practices and community programs that includes a feedback loop for patients, clinicians, and community resources. Modify and refine as needed to replicate statewide. • Investigate reimbursement and incentives as a method of increasing use of community resources.	Intermediate	Health systems, QC

Diabetes

The Maine Diabetes Prevention and Control Program has a strategic plan that includes comprehensive and broad-range strategies that pertain to cardiovascular health. Objectives 3.14-3.16 are addressed as part of the Diabetes Prevention and Control Plan. Please refer to that plan for additional strategies to achieve these objectives. The Maine Cardiovascular Health Program and its partners will collaborate with the Maine Diabetes Prevention and Control Program to achieve cardiovascular health strategies for those with diabetes.

Objective 3.14 (Developmental): By 2010, increase the proportion of adults with pre-diabetes and adults with diabetes who are aware that they are at increased risk of heart disease.

No.	Strategies for Objective 3.14	Timeline	Potential Collaborator(s)
1	Educate people with pre-diabetes and diabetes about their increased risk for CVD. **Activity:** • Implement an incentive-based patient education campaign with providers highlighting the critical link between diabetes and CVD.	Short-term	MDPCP, HMPs, health systems
2	Add questions to the BRFSS diabetes module to monitor whether those with diabetes are aware of their increased risk for heart disease and stroke.	Short-term to Intermediate	MDPCP

Objective 3.15: By 2010, increase the proportion of adults with diabetes who are taking steps to reduce their risk of heart disease or stroke through exercise from 78.7% in 2004 to 80%.

(Maine Adult Tobacco Survey 2004, Maine Center for Disease Control and Prevention, Department of Health and Human Services)

Objective 3.16: By 2010, increase the number of Maine adults reporting they receive formal diabetes patient education from 70% in 1998 to 80%.

(Program data, MDPCP)

No.	Strategies for Objectives 3.15 and 3.16	Timeline	Potential Collaborator(s)
1	Collaborate with the MDPCP to achieve CVH/diabetes strategies. Responsible Partner(s): MCVHP	Short-term	PANP
2	Integrate Healthy Maine Walks resources into diabetes self-management education curriculum (ADEF) statewide.	Short-term	MDPCP, PANP
3	Integrate CVD risk factor reduction into primary care practice diabetes patient protocols.	Short-term	Health systems, QC

Quality of Care

The quality of care objectives found in Goals 3, 4, and 5 pertain to the health system, self-management support, delivery system design, and clinical information systems elements of the Planned Care Model. Many of the strategies found in these sections are intertwined and overlap, but for the sake of this document these strategies have been separated into goal areas. Whenever possible, the quality of care objectives found in Goals 3, 4 and 5 will be implemented in unison.

Objective 3.17 (Developmental): By 2010, expand the use of clinical guidelines, reminder systems, preventive care, the Planned Care Model and behavioral counseling in all healthcare settings to increase the identification and control of cardiovascular risk factors and cardiovascular disease.

(Possible Data Source: Pathways to Excellence or an equivalent initiative. Possible Measure(s): Percentage of primary care practices that use systems to manage patient information [71 out of a sample of 188 primary care practices, or 38% 2005], follow clinical guidelines, and measure results of patient care.)

No.	Strategies for Objective 3.17	Timeline	Potential Collaborator(s)
1	Research and identify chronic disease and self-management issues (reimbursing time for support services, reimbursement supports to patients in self-management programs, rural models utilizing telephonic monitoring, group visits for patients, email and community health worker models). **Activity:** • Pilot promising initiatives.	Short-term to Intermediate	Health systems, QC, Health plans
2	Increase the use of clinical office system supports for CVH risk factor identification and control. **Activity:** • Advocate that Pathways to Excellence or similar initiatives utilize CVD core measures. Responsible Partner(s): MCHC and MCVHP • Identify and promote the benefits of participating in recognition programs to Maine practices. • Develop and implement a mentor-based program for recognized NCQA practices to assist new organizations in becoming recognized. • Encourage primary care practices to become recognized by MHMC Pathways to Excellence or an equivalent initiative (e.g., NCQA Heart/Stroke Physician Recognition Program). • Integrate MCVHP "Know Your Numbers" resources into FQHCs to assist practices in identifying and controlling CVH risk factors.	Short-term to Intermediate	MPCA, MCVHP, health systems, QC, AHA
3	Integrate risk factor reduction into hospital in-patient and out-patient protocols. **Activity:** • Research initiatives to integrate risk-factor screening and documentation into triage, discharge and out-patient procedures, including prescription adherence as a barrier. • Create a referral system to community-based programs addressing risk factors such as physical activity, nutrition, etc.	Intermediate	HMPs, SBHCs, Practice Managers, Case and Risk managers, health systems, QC, AHA
4	Assess public and private health insurance plans for current blood pressure and cholesterol-control services and coverage. Make recommendations for changes, if necessary, to promote reimbursement of preventive services for CVD that emphasize quality, cost-effective medical care.	Short-term to Intermediate	MCVHP

GOAL 4

Optimize Education and Response Systems to Identify and Treat Acute Events

This goal targets the actions that are taken when an individual has a heart attack or stroke. Included are the response of the individual and people around him or her in recognizing the signs and symptoms and the need to call 9-1-1 and the emergency care he or she receives from the emergency medical system including EMS, hospitals and primary care providers. Fundamental to this goal is an understanding that there are many routes an individual may take to receive treatment for an acute event; the route taken largely depends on the response by the individual or those around him or her.

Signs and Symptoms of Heart Attack and Stroke and the Need to Call 9-1-1

Objectives 4.01-4.03: By 2010, increase the proportion of adults aged 18 years and older who:

- **Understand the need to call 9-1-1 in the event of a heart attack or a stroke from 84% in 2001 to 90% (4.01); (ME BRFSS 2001)**
- **Are aware of the early warning signs of a heart attack and the need to call 9-1-1 from 10.3% in 2001 to 15% (4.02) (ME BRFSS 2001); and**
- **Are aware of the early warning signs of a stroke and the need to call 9-1-1 from 15.3% in 2001 to 20% (4.03) (ME BRFSS 2001).**

No.	Strategies for Objectives 4.01-4.03	Timeline	Potential Collaborator (s)
1	Provide public education to increase awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1. **Activity:** • Identify barriers to use of 9-1-1 and develop a plan to remove or reduce barriers (call delay, embarrassment, payment, etc.). • Expand the MCVHP stroke awareness campaign. • Conduct an AMI awareness campaign. • Distribute public education resources to community and professional health organizations and healthcare providers. • Identify statewide programs (Adult Education programs, YM[W]CAs, unemployment resources, etc.) interested in implementing signs and symptoms and 9-1-1 messages in their strategic plans and annual operations. • Promote hospital-based community outreach education initiatives by creating and disseminating "ready-to-use" resources. • Provide technical assistance in implementing education/awareness initiatives to local organizations.	Short-term to Intermediate	MCVHP, HMPs, EMS, MQF, Heart-safe sites, hospitals, AHA/ASA

No.	Strategies for Objectives 4.01-4.03	Timeline	Potential Collaborator(s)
2	Provide education in schools on signs and symptoms of heart attack and stroke and the need to call 9-1-1. **Activity:** • Develop a database of school and youth programs on signs and symptoms and Call 911 with the expectation of generating promising practices. • Develop a template or talking points for schools, worksites, and healthcare settings and distribute to partners. • Integrate education on signs and symptoms and Call 911 into Maine Learning Results. • Investigate use of community colleges and other institutions of higher learning to develop learning tools for children (K-12) around signs and symptoms of heart attack and stroke and Call 911. • Investigate current practices re: school and youth activities (poster contests, local youth organizations educating their peers, etc.). • Engage before and after school providers to develop programs around heart attack and stroke and Call 911 – open to both parents and children. Responsible Partner(s): Maine School Age Care Alliance networks	Short-term Short-term Short-term Intermediate to Long-term Long-term Short-term Short-term	DOE, youth organizations, state partners
3	Develop and disseminate an employer educational campaign, case studies and resources to raise awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1 for worksites. **Activity:** • Research: Financial benefits, including reduced work loss and available DOE resources. • Incorporate materials into the Good Work! resource kit and provide prompts motivating employers to use. See Strategy 1.03.1 (adding questions on youth surveys regarding signs and symptoms).	Intermediate	MCVHP, Wellness Councils

Quality of Care

Objectives 4.04-4.05: By 2010, decrease the proportion of pre-transport deaths attributable to:

- **diseases of the heart from 54.0% of total deaths to 51.3% of total deaths (4.04);**
- **stroke from 58.3% of total deaths to 55.4% of total deaths (4.05).**

(Pre-transport deaths occur when the patient is not in or en route to the hospital, clinic, or medical center.) ME diseases of the heart: 54.0% in 1999, compared to US: 47.1%. ME Women: 58.4% ME Men: 49.1%. ME stroke: 58.3% in 1999, compared to US: 47.6%. ME Women: 63.3% vs. ME Men: 50.2%; MMWR, State-Specific Mortality from Stroke and Distribution of Place of Death—US, 1999, May 24, 2002/51(20); 429-433; (The Burden of Heart Disease and Stroke in the United States: State and National Data, 2004.)

No.	Strategies for Objectives 4.04-4.05	Timeline	Potential Collaborator(s)
1	Analyze EMS and hospital discharge data to establish a baseline of symptom onset to call times, call to transport, etc., for acute events.	Short-term to Intermediate	MHIC, ME EMS, MCVHP
2	Increase public access to CPR and defibrillation. **Activity:** • Assess where AEDs currently are. Explore funding to build and maintain a database. • Develop templates for and provide technical assistance to schools and businesses on CPR and AED policies. • Investigate the potential for legislation that requires Maine schools to have a recognized emergency response plan for heart attack and stroke, CPR and AED training as appropriate. • Provide technical assistance to schools and worksites on emergency response plans that include heart attack and stroke. • Encourage the use of AEDs at large worksites that have an aging or high-risk population. • Advocate for school and worksite crisis response plans to include signs and symptoms, Call 911 and the number of school staff to be CPR-certified. • Promote CPR and BCLS trainings to employers. • Work with Maine Municipal Association to increase number of municipal staff to be CPR-certified. • Partner w/coaches statewide to increase CPR certification.	Short-term to Intermediate	AHA/ASA, DOE
3	Support continuing education for EMS providers. **Activity:** • Develop and implement a stroke-specific, pre-hospital continuing education program for EMTs based on guidelines and resources	Short-term	

No.	Strategies for Objectives 4.04-4.05	Timeline	Potential Collaborator(s)
	(e.g., a standardized stroke scale and thrombolytics check list to identify potential stroke). • Establish a policy or process to ensure that EMTs have been trained to utilize a standardized stroke scale to identify stroke.		
4	Increase EMS and hospital quality of care initiatives that promote adherence to national guidelines for treating AMI and stroke. **Activity:** • Assess use of guidelines to developing protocols. • Identify appropriate data points for collection, based on guidelines and resources, and integrate into EMS Electronic Data System (run sheets). Responsible Partner(s): MCVHP, Maine EMS • Explore potential opportunities and barriers to developing and implementing tiered designation options that include national guidelines for stroke treatment such as basic, intermediate, and primary stroke center levels. Responsible Partner(s): New England Rehabilitation, Anthem • Pilot a communication project that links Emergency Dispatch, EMS and Emergency Departments to improve outcomes. • Identify potential links among pre-hospital systems and create an action plan that optimizes links identified. Responsible Partner(s): Maine EMS Cardiac Advisory Committee and MCVHP. See Strategy 1.03.3.	Intermediate to Long-term	Health systems, MHA

GOAL 5

Optimize Care Systems to Prevent Cardiovascular Complications, Disability and Disease Progression

This goal addresses the need for quality care before and after an acute event to optimize long term health and quality of life. This goal addresses the need for utilization of good cardiac and stroke rehabilitation services after an acute event and strives to avoid repeat events and hospitalizations.

Quality of Care

Objective 5.01 (Developmental): By 2010, increase hospital and primary care practice adherence to national guidelines for diagnosing and treating cardiovascular disease.

(Possible data source: Pathways to Excellence and U.S. Department of Health and Human Services, Hospital Compare. Possible measures: Overall AMI performance; Aspirin on Discharge; ACE Inhibitor in LVSD; Aspirin within 24 hours of arrival; Beta blocker within 24 hours of arrival; Proportion of persons with stroke who reach a hospital with a stroke team and rapid intervention protocol within the time window for early intervention; Overall heart failure performance; LVF assessment; ACE in LVSD; Discharge instructions; Smoking cessation counseling.)

No.	Strategies for Objective 5.01	Timeline	Potential Collaborator(s)
1	Promote use of national guidelines for acute events (heart attack, stroke) and CVD diagnoses (angina, coronary artery disease, congestive heart failure, etc.) in healthcare settings. **Activity:** • Develop a treatment map/decision tree or algorithm by disease diagnosis. • Promote collaboration between key partners (Maine Quality Forum, MHA) to integrate national guidelines into statewide quality improvement initiatives and promote CVH/CVD best practices among healthcare providers and policy makers. • Identify potential indicators for measuring and improving the quality of stroke care based on national guidelines and current resources. • Investigate pay for performance measures related to CVD. • Encourage acute care hospitals to implement AHA/ASA GWTG-AMI, GWTG-CHF, and GWTG-Stroke. Responsible Partner(s): AHA/ASA • Increase number of physician practices recognized by NCQA Heart/Stroke Physician Recognition Program. Responsible Partner(s): AHA/ASA	Short-term to Intermediate	AHA/ASA, MCVHP, MQF, MHMC, health systems, MHA

No.	Strategies for Objective 5.01	Timeline	Potential Collaborator(s)
2	Develop a process for creating standardized guidelines throughout the continuum. **Activity:** • Investigate MECare, MHMC, and other "Pay for Performance" in-patient, out-patient, public and private initiatives. See Strategies 3.17.2, 3.17.3, and 4.4.1-4.5.4.	Intermediate to long-term	Health systems, QC

Objective 5.02–5.04: By 2010, maintain hospitalization rates of Maine adults with acute myocardial infarction as the principal diagnosis at:

- **34.2/10,000 in 2002 for those aged 35-64 years (5.02),**
- **121.7/10,000 in 2002 for those aged 65-74 years (5.03), and**
- **219.2/10,000 in 2002 for those aged 75 years and older (5.04).**

(Burden of Cardiovascular Disease in Maine. Maine Cardiovascular Health Program, Maine Center for Disease Control and Prevention. September 2005.)

Objective 5.05–5.07: By 2010, reduce hospitalizations of Maine adults with congestive heart failure as the principal diagnosis from:

- **11.6/1,000 in 1998 to 9/1,000 for those aged 65-74 years (5.05),**
- **23.6/1,000 in 1998 to 22/1,000 for those aged 75-84 years (5.06), and**
- **42.0/10,000 in 1998 to 34/1,000 for those aged 85 years and older (5.07).**

(HM2010) (CVH Plan)

Objective 5.08–5.09: By 2010, maintain hospitalization rates of Maine adults with stroke as the principal diagnosis at:

- **14.3/10,000 in 2002 for those aged 35-64 years (5.08), and**
- **180.0/10,000 in 2002 for those aged 75 years and older (5.09).**

(Burden of Cardiovascular Disease in Maine. Maine Cardiovascular Health Program, Maine Center for Disease Control and Prevention. September 2005.)

Objective 5.10: By 2010, reduce hospitalization rates of Maine adults aged 65-74 years with stroke as the principal diagnosis from 86.3/10,000 in 2002 to 79.4/10,000.

(Burden of Cardiovascular Disease in Maine. Maine Cardiovascular Health Program, Maine Center for Disease Control and Prevention. September 2005.)

No.	Strategies for Objectives 5.02-5.10	Timeline	Potential Collaborator(s)
1	Promote the use of in-patient educational media (video, tapes, brochures, etc.) for CVD prevention, treatment, and control that are evidence-based. **Activity:** • Inventory existing practices and explore use of family education, consider targeting to specific in-patient diagnoses. Assess ways to maintain up-to-date evidence-based resources. • Pilot new, innovative strategies to improve patient education.	Intermediate	Health systems, MHA
2	Investigate the expansion of CVH support groups and implement where needed. Responsible Partner(s): Stop Stroke Committee **Activity:** • Explore online support groups for rural areas.	Intermediate	HMPs
3	Increase utilization of cardiac rehabilitation services among persons that have CVD. **Activity:** • Identify barriers to referral and utilization of cardiac rehabilitation services, including gender and rural issues. • Map existing services. Include an investigation of existing cardiac rehabilitation resources, such as Turning Point, insurance and healthcare services in rural areas. Explore telephonic support, reimbursement, and programs such as ME Cares or similar initiatives. • Develop a plan of action to address gaps, identify needs, and collaborate to implement an evidence-based self-management model throughout the continuum of care.	Intermediate	MCVHP
4	Increase self-management of CVD at the worksite. **Activity:** • Research needs and support partners with the dissemination of patient education materials to promote best practices for CVD prevention, self-care, and rehabilitation. • Provide information to employers and employer systems on evidence-based care management systems and on purchasing benefits for management of CVD and multiple complex risk factors.	Intermediate	MCVHP

No.	Strategies for Objectives 5.02-5.10	Timeline	Potential Collaborator(s)
5	Work with healthcare systems to optimize a continuum-of-care model for acute events and CVD diagnoses. **Activity:** • Research the current continuum of care. • Explore chronic disease models such as those used by Redington Fairview and ME Health and promote models that use evidence-based practices. • Develop protocols that address the continuum of care (e.g., in hospital, at time of discharge, referral to cardiac rehab, and follow-up with specialists and primary care physician) in a way that promotes optimal care for patients.	Intermediate	Health systems, MHA
6	Identify best practices to reduce hospitalizations throughout the health care continuum and work with partners to develop appropriate trainings and interventions.	Short-term	Health systems, QC
7	Develop a "House Calls" pilot project that utilizes identified best practices to reduce hospitalization rates for CHF.	Intermediate	
8	Increase collaborations with pharmacists and pharmacies to address CVD management. **Activity:** • Investigate national practices to increase medication compliance and explore opportunities for Maine.	Intermediate to Long-term Intermediate	

GOAL 6

Eliminate Disparities in the Prevention, Detection, and Treatment of Cardiovascular Disease and Its Risk Factors

This goal identifies the need to eliminate disparities in cardiovascular disease prevention, detection, and treatment. The first step is to analyze data more closely to identify disparities. It is important to identify specific focuses for disparities so that interventions can be appropriately targeted. Preliminary data suggests those earning less than $25,000 per year experience disparities. In workgroups, public health professionals identified those at greatest risk of experiencing cardiovascular disease as the uninsured, persons with low-literacy levels, persons experiencing high levels of stress (stress is often a barrier to undertaking positive health actions), persons with mental health issues, and persons in prison.

Workgroup members identified many potential collaborators, some of whom are currently serving disparate populations. Those identified are: Sagadahoc Health Improvement Program, Maine Women's Health Campaign, community mental health centers, fuel assistance programs, Meals on Wheels, Maine State Housing Authority, Maine Primary Care Association, regional transportation providers, Maine Community Action Agency Programs (CAPs), United Way, Eastern Maine Transportation Collaborative; Office of Maine Care Services (State Medicaid program), Office of Veterans' Affairs, Office of Rural Studies—University of Southern Maine, Office of Rural Health, and Maine Health.

Objective 6.1: By 2007, develop at least two additional objectives and corresponding strategies related to population groups experiencing a disparity with respect to cardiovascular disease prevention, treatment, or control.

No.	Strategies for Objective 6.1	Timeline	Potential Collaborator(s)
1	Complete, disseminate, and review the Maine Cardiovascular Health Program Cardiovascular Disease Burden document. **Activity:** • Update every two years.	Short-term	MCVHP, MCHC
2	Collaborate with organizations currently serving disparate populations. **Activity:** • Identify organizations that work or interact with disparate populations and explore opportunities to partner. • Develop a task force of chronic disease professionals to examine Maine's social determinants of health and their relationship to chronic disease. Work through this task force and State Office of Minority Health to develop state and regional recommendations to address disparities.	Intermediate	Sample of collaborators listed in narrative above

No.	Strategies for Objective 6.1	Timeline	Potential Collaborator(s)
3	Conduct community health assessments to determine physical and financial access to cardiovascular healthcare services, support groups, and other services/programs by those with limited funds, mobility or transportation.	Short-term	
4	Assess and develop a positive and affirming plan of action to address access (physical and financial) to local resources for people in rural areas to assist them in managing their CVD. **Activity:** • Investigate models to address transportation barriers such as those used by the Maine Migrant Health Program (mobile health units); AAAs; MPCA; and develop volunteer transportation programs to transport people to available services. • Explore methods for taking healthcare services to outlying populations, including mobile health units. • Promote enrollment in prescription drug coverage programs.	Intermediate	
5	Tailor population-based programs and efforts to meet the needs of disparate populations. **Activity:** • Adapt materials and promote interventions around signs and symptoms and Call 911 for the fishing industry, migrant workers, and agriculture workers and for those who are blind, deaf, or unable to comprehend written materials. • Provide education in healthcare settings (hospitals, primary care and family practice, cardiology, ob/gyn) on CVD guidelines for women and encourage healthcare providers to utilize these guidelines in the care of their patients (consider education models that have a business case; i.e., provide reimbursement). • Investigate MMC PHO and Office of Rural Health (Care Management Program) activities around community health worker programs and consider replicability. • Pilot a community health worker program in rural areas for patients with CVD or CVD risk factors that navigates patients through healthcare services, connects patients to community resources, and supports patient self-management.	Intermediate Short-term	MMC PHO

No.	Strategies for Objective 6.1	Timeline	Potential Collaborator(s)
6	Advocate for improved prescription drug coverage for those in need of medication to control their risk factors.	Intermediate	HMPs
7	Establish a statewide system to eliminate language barriers in the pre-hospital setting. **Activity:** • Explore ways to address health literacy for cardiovascular health and chronic diseases.	Long-term	Literacy Volunteers of Maine, UNE (AHEC)
8	Investigate the development of a treat-and-release program to help address financial burdens associated with non-transport reimbursement.	Long-term	EMS, Insurers, Trauma Centers
9	Develop and pilot a depression screening protocol and psychosocial follow-up for care of cardiovascular patients in primary care practices.	Intermediate	ME Developmental Disability Association
10	Explore the mental health population's access to prevention, control, and treatment of CVD risk factors and CVD.	Intermediate	

APPENDIX A

Workgroup Participants

Clinical Office System
Chris McCarthy, MA
David Day
Joan Orr, CHES
Joanne Joy
Joel Johnson, RN
Kevin Lewis
Lisa Letourneau, MD, MPH
Marcia Jackson, RN
Melody Martin
Pam Hageny, BSW, MBA
Sandy Record, RN
Sophie Glidden
Workgroup Chair:
Elizabeth Foley
Hilary Schneider, MPP

Community
Andy Finch, LCSW
Anne-Marie Davee, MS, RD
Anthony Wild
Becky Smith
Carol Francis, RN
DeEtte Hall
Dennise Whitley, MHA
Donna Burke-Butler, RN, MS
Karen O'Rourke
Mark DiTullio
Mary Jane Bush
Penny Townsend, MPH, CHES
Victoria Kuhn
Chris Lyman, MSW, CHES
Janet Lent
Kathy Sutton
Patti Gulnac
Workgroup Chair:
Edward Trainer, DrPH

Emergency Response Systems
Bill Zito, Reg.Coord., Mid-Coast
Connie Putnam
Craig Day
Kathy Knight, RN, BSN
Natalie Morse, Health Educator
Reggie Grenier, EMT
Pauline Grenier, RN
Rick Petrie, EMT-P
Steven D. Corbin, EMT-B
Thomas P. Judge, CCT-Paramedic
Workgroup Chair:
Danielle Louder

Hospital Systems
Claudette Bean, RN
David Winslow
Donna Walsh, MS, RD, LD
Kelly Petti, MSM
Kevin McGinnis, MPS, EMT-P
Kimberly Bassett, SLP
Lori Kaley, MS, RD, LD, MSB
Paulette Burbank
Peggy Haynes, RN
Scott Peterson, DMO
Workgroup Chair:
Danielle Louder

Worksite
Bill Primmerman
Dawn Littlefield
Jackie Tselikis
Kristin Gilbert
Laurie Jones, RD
Phyllis Wolfe
Thomas Downing
Wendie Lagasse
Eleody Libby
Bill McPeck
Workgroup Chair:
Beth McCallum
Andy Spaulding

Reviewers
Barbara Peppey
Burnham Martin
Carol Bell
Holly Gartmayer, BSN, MBA
Cindy Hale
Debbie Eustis-Grandy, PhD
Deborah M. Silberstein, RN, ScM
Donnie Carroll
Dwight Littlefield, RN, MBA
Ed Miller
Erik N. Steele, DO
Helena Peterson
Jay Bradshaw, EMT-P
Jim Leonard, MSW
Lee Scott
Mary Doyle, RN, MA
Sue M. Bouchard, RN, BSN
Ted Rooney, RN, MPH
Dervilla McCann, MD
Michael Fleming, MA, MS
Megan Hannan

Staff:
Rebecca Drewette-Card, MSPH
Patricia Hart, MS
Debra Wigand, MEd, CHES

APPENDIX B

Maine Cardiovascular Health Program Partners

The list of Maine Cardiovascular Health Program partners listed below includes the Maine Cardiovascular Health Council, Emergency Medical Services, emergency dispatch, hospitals and healthcare systems, professional organizations for healthcare providers, regional and local Wellness Councils, employers, insurers, community coalitions, and Maine Center for Disease Control and Prevention (Maine CDC) and other State Government programs.

American Heart Association–Northeast Affiliate
American Cancer Society, New England Division
American Lung Association of Maine
Androscoggin Cardiology Association
Anthem Blue Cross and Blue Shield
Aroostook EMS
Asthma Program, Maine Center for Disease Control and Prevention, DHHS
Augusta Fire Department
Bangor Fire and Rescue
Bangor Region Wellness Council
Bureau of Elder and Adult Services, DHHS
Bicycle Coalition of Maine
Bath Iron Works
Blue Hill Memorial Hospital
Brain Injury Association of Maine
Bucksport Community Health Advisory Committee
Central Maine Heart and Vascular Institute
Coastal Hancock Healthy Communities
Coastal Healthy Communities
Community Health Promotion Program, Maine Center for Disease Control and Prevention, DHHS
Community Wellness Coalition
Comprehensive Cancer Program, Maine Center for Disease Control and Prevention, DHHS
Consumers for Affordable Health Care
Coordinated School Health Program, Maine Center for Disease Control and Prevention, DHHS
Coordinated School Health Program, Department of Education
Department of Education
Department of Transportation
Diabetes Prevention and Control Program, Maine Center for Disease Control and Prevention, DHHS
Eastern Maine Healthcare Systems
Emergency Services Communications Bureau
Eastern Maine Medical Center
First Responder Service
Fish River Rural Health Center
Franklin Community Health Network
Franklin Memorial Hospital
Getting Healthy
Goodwill Industries of Northern New England, NeuroRehabilitation Services
Harrington Family Health Center
Harvard Pilgrim Health Care
Health Center, Micmac Health Department
Health Center, Penobscot Indian Nation
Health Improvement, Blue Cross Blue Shield
Healthy Acadia
Healthy Community Coalition
Healthy Peninsula Project
Healthy Portland
Houlton Band of Maliseet Indians
Indian Township Health Center
Inland Hospital
Kennebec Valley and Northeast EMS
Knox County Coalition Against Tobacco
LifeFlight of Maine
Maine Bureau of Insurance

Maine Cardiology
Maine Cardiovascular Health Council
Maine Center for Lipids
Maine Center for Public Health
Maine Coalition on Smoking OR Health
Maine Department of Agriculture
Maine Developmental Disabilities Council
Maine Emergency Medical Services
Maine EMS Board
Maine General Health
Maine Governor's Council on Physical Fitness, Sports, Health and Wellness
Maine Health Access Foundation
Maine Heart Center
Maine Hospital Association
Maine Medical Association
Maine Medical Center
Maine Municipal Association
Maine Nutrition Network, University of Southern Maine
Maine Osteopathic Association
Maine Primary Care Association
Maine Public Health Association
Maine Quality Forum
Maine Rural Health Research Center
Maine State Nurses Association
MaineHealth
MaineHealth's Partnership for Healthy Aging
Martin's Point Health Care
Mathews Brothers
Medical Care Development
Mid-Coast EMS
MSAD #9
MSAD #43/Hanover
National Park Service, Rivers and Trails Program
New England Rehabilitation Hospital of Portland
Northeastern Log Homes
Office of MaineCare Services
Old Orchard Beach Schools
Partners for Healthier Communities
Partnership for a Healthy Community, Presque Isle
Partnership for a Tobacco Free Maine, Maine Center for Disease Control and Prevention, DHHS
Penobscot Valley Hospital
Public Health Nursing, Maine Center for Disease Control and Prevention, DHHS
Pleasant Point Health Center
Power of Prevention Community Health
People's Regional Opportunity Program
Redington-Fairview General Hospital
Regional Medical Center at Lubec
Sanford School Department
School Administrative District #48
School Administrative District #59
Sebasticook Valley Hospital
Somerset Heart Health
Southern Maine EMS
St. John Valley Partnership
St. Joseph's Healthcare
State of Maine Employee Health and Safety
State of Maine EMS
The Bingham Program
Tri-County EMS
University of Maine Cooperative Extension
University of New England
University of Southern Maine Muskie School
University of Southern Maine–Lifeline
Waterville Public Schools
Western Maine Center for Heart Health, Franklin Memorial Hospital
York Neurology

LIST OF ACRONYMS AND ABBREVIATIONS

AAA	Area Agency on Aging
ADEF	Ambulatory Adult Diabetes Education and Follow-up Program
AED	Automated External Defibrillator
AHA	American Heart Association
AMI	Acute Myocardial Infarction
ASA	American Stroke Association
BC	Blood Cholesterol
BCLS	Basic Cardiac Life Support
BMI	Body Mass Index
BP	Blood Pressure
BRWC	Bangor Region Wellness Council
CDC	U.S. Centers for Disease Control and Prevention
CHCs	Community Health Coalitions (This includes Healthy Maine Partnerships, Healthy Community Coalitions, and other local community health coalitions.)
CHF	Congestive Heart Failure
CSHP	Coordinated School Health Program
CPR	Cardiopulmonary Resuscitation
CVD	Cardiovascular Disease
CVH	Cardiovascular Health
DOE	Department of Education
DSME	Diabetes Self Management Education
EAP	Employee Assistance Program
ED	Emergency Department
EMD	Emergency Medical Department
EMR	Electronic Medical Record
EMS	Emergency Medical System
EMT	Emergency Medical Technician
FQHCs	Federally Qualified Health Centers
GWTG-AMI	Get with the Guidelines–Acute Myocardial Infarction
GWTG-Stroke	Get with the Guidelines–Stroke
HMPs	Healthy Maine Partnership(s)
HRA	Health Risk Appraisal
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
MCHC	Maine Cardiovascular Health Council
MCHPP	Maine Community Health Promotion Program
MCPH	Maine Center for Public Health
MCVHP	Maine Cardiovascular Health Program
MCWW	Maine Council for Worksite Wellness
MDPCP	Maine Diabetes Prevention and Control Program
ME CDC	Maine Center for Disease Control and Prevention
MHA	Maine Hospital Association
MHDO	Maine Health Data Organization
MHIC	Maine Health Information Center

MHMC	Maine Health Management Coalition
MMWC	Mid-Maine Worksite Wellness Council
MNN	Maine Nutrition Network
MPCA	Maine Primary Care Association
MQF	Maine Quality Forum
NCQA	National Committee for Quality Assurance
OSA	Office of Substance Abuse
PAN	Physical Activity and Nutrition
PANP	Physical Activity and Nutrition Program
PCP	Primary Care Practice or Primary Care Physician
PFSHandW	Physical Fitness, Sports, Health and Wellness
PHO	Physician Hospital Organization
PTE	Pathways to Excellence
QC	Quality Counts
SAD	School Administrative District
SBHCs	School Based Health Centers
SMWC	Southern Maine Wellness Council
UNE	University of New England

inside back cover is blank