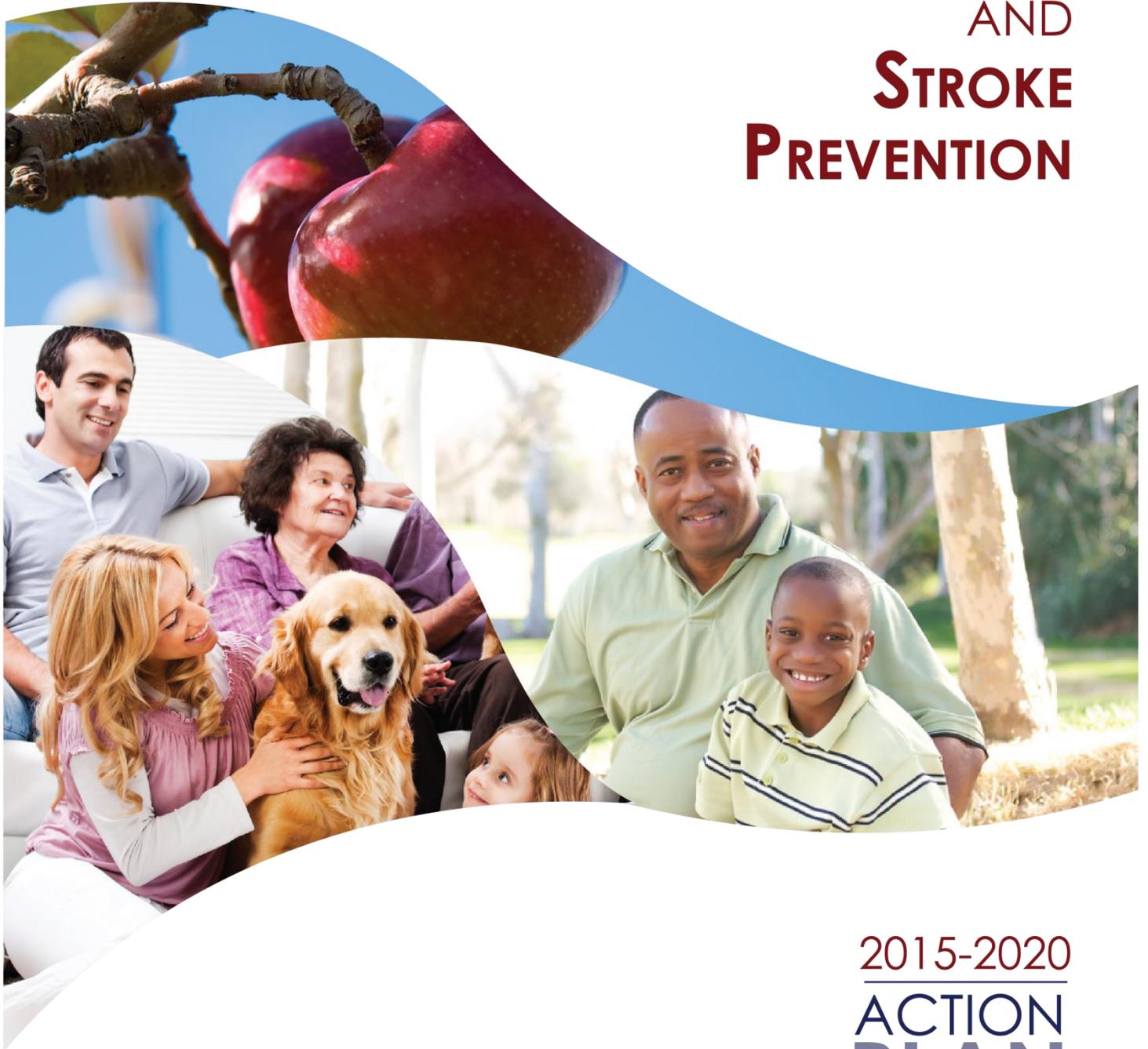


NEW HAMPSHIRE HEART DISEASE AND STROKE PREVENTION



2015-2020
ACTION
PLAN

For more information about this Action Plan or heart disease and stroke prevention in New Hampshire, please contact:

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An electronic version of this plan is available on the NH Heart Disease & Stroke Prevention Program website at: <http://www.dhhs.state.nh.us/dphs/cdpc/hdsp.htm>.

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LETTER FROM THE DIRECTOR



Nicholas A. Toumpas
Commissioner

José Thier Montero
Director

STATE OF NEW HAMPSHIRE
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April 13, 2015

Dear Colleagues:

The New Hampshire Department of Health and Human Services, Division of Public Health Services (DPHS) is pleased to present the **New Hampshire Heart Disease and Stroke Prevention 2015-2020 Action Plan**. Despite impressive technical and programmatic advances within the medical and public health communities, cardiovascular diseases continue to be leading causes of death and morbidity for New Hampshire residents. In 2013, over 30% of New Hampshire residents reported that they had been told that they had high blood pressure and over 2,300 New Hampshire residents died of coronary heart disease, heart attacks or stroke. The data also tells us that there are disparities in accessing timely care depending on where you live. Because of this, the *Prevention and Heart Disease and Stroke* is one of 10 priorities within the New Hampshire State Health Improvement Plan (NH SHIP). The NH SHIP priorities are intended to provide support, guidance, and focus for public health activities throughout the state. Because New Hampshire is a small state with limited human and financial resources, it is imperative that the public health system continue to remain focused on those areas where our collective actions will leverage the most improvement. Heart disease and stroke are among the most widespread and costly health problems facing our state. Fortunately, they are also among the most preventable.

We know that in order to make a significant difference in the lives of so many Granite Staters and effectively implement this action plan, a **collective impact** approach needs to be adopted. With DPHS serving as the *Backbone Support*, guiding vision and strategy, mobilizing partners and promoting effective policy, it is our goal that this plan will serve as a *Common Agenda* among public and private partners. Its implementation plan will serve as the *Shared Measurement System* by which we hold ourselves accountable. Finally, collaborative workgroups, focused on *Mutually Reinforcing Activities*, will turn knowledge into behavioral change and will increase the use of evidenced based practices among health systems.

Together, culturally and socioeconomically relevant clinical and community-based strategies that focus on diet modification, physical activity, smoking cessation, and control of hypertension and cholesterol paired with improvements in the quality of care and timely access to emergency services will help New Hampshire become a healthier state.

I sincerely appreciate the time and effort of all those individuals who assisted in preparing the **New Hampshire Heart Disease and Stroke Prevention 2015-2020 Action Plan**. I also want to thank every reader who will become more informed about the serious efforts needed to address the issues of heart disease and stroke in our state. The ultimate success of this plan depends on the commitment and engagement from a wide range of partners and organizations throughout the state. Together we will accomplish these ambitious goals and improve the health of residents in every corner of our state.

Respectfully,

José Thier Montero, MD, MHCDS
Director

The Department of Health and Human Services' Mission is to join communities and families in providing opportunities for citizens to achieve health and independence.

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ACKNOWLEDGEMENTS

This plan was developed with input from partners throughout New Hampshire, all dedicated to preventing heart disease and stroke. Individual organizations are highlighted within the plan.

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INTRODUCTION

New Hampshire has consistently ranked among the healthiest states in the country in recent years (United Health Foundation, 2013). With a relatively strong economy and diverse landscape with many recreational opportunities, New Hampshire offers a favorable environment for an active and healthy population. However, with an aging population and significant disparities in health conditions, many New Hampshire residents are affected by chronic health conditions, including heart disease and stroke. Heart disease is a broad category of conditions that includes several types of chronic cardiac conditions, such as coronary heart disease, congestive heart failure, and heart attacks. Stroke is another serious condition related to cardiovascular health that is often grouped with heart disease for examining the overall prevalence and impact of heart conditions on a population. Common risk factors for both heart disease and stroke include high blood pressure, high blood cholesterol levels, sedentary lifestyles, smoking, diabetes, and poor nutrition.

In 2013, 4.1% of New Hampshire adults (5.4% of males, 2.9% of females) were told by a health professional that they had coronary heart disease or angina, a symptom of coronary artery disease (CDC, 2013a). The incidence of heart attacks is also widespread across New Hampshire. From 2004 to 2013, Belknap County and Coös County had the highest age-adjusted death rates from heart attacks, while Hillsborough and Rockingham Counties accounted for the highest number of deaths during this time period (NH DHHS/NH DVRA, 2013).

Approximately 2.3% of adults reported having been told they had had a stroke by a health professional in 2013 (NH DHHS/NH DVRA, 2013). From 2009 to 2013, Hillsborough County had the highest number of stroke deaths (NH DHHS/NH DVRA, 2013). In 2013, 81.7% of New Hampshire adults reported having been screened for blood cholesterol levels in the past five years and, of those screened, 36.7% indicated they had high blood cholesterol (CDC, 2014a).¹

DID YOU KNOW?

- Heart disease is the second leading cause of death in NH and stroke is the fifth leading cause of death in NH (NH DHHS/NH DVRA, 2013).
- In 2013, about 22% of New Hampshire adults reported no physical activity or exercise in the prior 30 days (CDC, 2014a).
- In 2013, about 16% of adults in NH were current cigarette smokers (CDC, 2014a).

¹ Additional data on factors related to heart disease and stroke prevention, treatment, and outcomes is available on NH Health WISDOM at wisdom.dhhs.nh.gov.

DID YOU KNOW?

- In 2010, mean hospitalization charges for coronary artery disease cases in NH were \$63,408 and the average hospital stay was 4.1 days (NH DHHS, 2010).
- According to the CDC, less than 10% of stroke victims get the proper emergency care for recovery (CDC, n.d.).
- A comparison of rates by race reveals that black women and men in the United States have much higher coronary heart disease (CHD) death rates in the 45–74 age group than women and men of other races (CDC, n.d.).
- In NH in 2013:
 - A total of 1,557 deaths occurred due to CHD. There were significantly more men than women who died from CHD.
 - A total of 378 deaths occurred due to heart attack. There were significantly more men than women who died from a heart attack.
 - A total of 436 deaths occurred due to stroke (NH DHHS/NH DVRA, 2013).

Taking the necessary steps to prevent heart disease and stroke is to the benefit of the overall well-being of New Hampshire residents. Heart disease and stroke are not only serious health conditions affecting individuals and families, these health issues also have broad implications for society overall with significant impacts on the economic and cultural well-being of our state.

Prevention and improved treatment of heart disease and stroke can be accomplished through improving many elements of care, including controlling high blood pressure and high blood cholesterol, improving emergency response, improving quality of care, and eliminating health disparities among vulnerable populations. New Hampshire is well positioned to leverage partnerships within the public health and medical communities to reduce the burden of disease. With the advent of health care reform and transformational changes occurring in the health care sector, there are important opportunities for collaboration between public health and health care delivery to implement innovative approaches for improving the health of our population. This document provides a framework for action over the next several years to reduce the burden of heart disease and stroke by improving systems of care and the overall cardiovascular health of residents in communities across New Hampshire.

DEVELOPMENT OF THE STRATEGIC ACTION PLAN

BACKGROUND

In 2013, the NH Division of Public Health Services (DPHS) released the *NH State Health Improvement Plan 2013-2020* (NH DPHS, 2013), which aims to assist state and community leaders in focusing their work to improve the public's health and to promote coordination and collaboration among public health partners. The plan highlights 10 key health areas with associated health outcome indicators that describe the most significant health issues currently facing the NH population, including heart disease and stroke. The box to the right shows the target indicators for population health improvement for heart disease and stroke from the State Health Improvement Plan.

To improve cardiovascular health at a population level and support lifestyle and other changes in homes and communities, New Hampshire must develop more effective and efficient models of care responsive to social determinants of health. This approach will require the combined effort of health care delivery systems, insurers, community advocates, and local and state public health. Needed resources include, not only funding, but an expert workforce, community assets, supportive payment policies, timely data, and collaborative partnerships. In response to this need, the NH DPHS, Heart Disease and Stroke Prevention Program brought state and community partners together in June 2014 to determine strategies to meet these targets, and develop the first statewide strategic action plan for heart disease and stroke prevention and treatment.

NH State Health Improvement Plan 2013-2020 Priority Objectives for Heart Disease & Stroke:

Reduce the percent of adults with high blood pressure from 31% (2011) to 26% by 2015 and 22% by 2020.

Reduce the percent of adults with high blood cholesterol from 39% (2011) to 35% by 2015 and 30% by 2020.

Reduce coronary heart disease death rates from 101.3 deaths per 100,000 population (2010) to 98 by 2015 and 95 by 2020.

Reduce stroke death rates from 34 deaths per 100,000 population (2011) to 32 by 2015 and 28 by 2020.

A COLLECTIVE IMPACT APPROACH TO IMPLEMENTATION

In order to effectively implement this strategic action plan, a collective impact approach is required. Collective impact is defined as “the commitment of a group of important actors from different sectors to a common agenda for solving a specific social problem (Kania & Kramer, 2011).”

In order for the implementation of this plan to be successful, partners from a wide variety of sectors and geographic areas will need to be engaged. *Continuous communication* among involved partners will be critical to engage participants and build a coordinated response across multiple community sectors. A *backbone support organization* with dedicated staff responsible for coordination will be necessary to drive the activities of this strategic action plan forward. For the purposes of this strategic action plan, NH DPHS, Heart Disease and Stroke Prevention Program will serve as the backbone support organization by supporting coordination of partners' efforts and ensuring continuous communication of opportunities and activities for health improvement. In addition, all partners must have a *common agenda*, or a shared understanding of the problem and of the joint approach that will be taken to solve it. While partners will be implementing a variety of activities specific to their region and mission, all activities are interdependent and must be *mutually reinforcing*. Finally, common indicators need to be agreed upon, and *shared measurement systems* must be in place to reinforce the common agenda, to measure success, and hold partners accountable for agreed upon actions (Kania & Kramer, 2011).

NH DPHS will assist in the coordination of workgroups and partners to further develop and refine each strategy so that there are specific, measurable, and time-bound indicators by which we can measure our success. Appendix B provides a comprehensive list of measures used by DPHS programs to measure the impact of Heart Disease and Stroke Prevention activities. These measures will serve as a common starting point for workgroups and partners in order to promote alignment and shared measurement throughout the state.

DEVELOPMENT PROCESS

In June of 2014, DPHS convened a statewide meeting of representatives from public and private organizations serving various roles in community health-related coalitions. The focus of the meeting was to develop an action plan to address the goals identified in the State Health Improvement Plan for the priority area of heart disease and stroke. Additional input was sought from stakeholders throughout the development process. Representatives from the following organizations provided feedback throughout the development of this action plan:

- American Heart Association
- American Lung Association
- American Stroke Association
- Anthem BCBS
- Catholic Medical Center
- Cheshire Medical Center/Dartmouth-Hitchcock Keene
- City of Manchester, Health Department
- City of Nashua, Division of Public Health and Community Services
- Community Health Access Network (CHAN)
- Community Health Institute/JSI
- Dartmouth-Hitchcock Medical Center (DHMC)
- Families First Health and Support Center
- Foundation for Healthy Communities/HEAL NH
- Goodwin Community Health
- Granite State Diabetes Educators
- Greater Sullivan County Public Health Network
- HealthSouth Rehabilitation Hospital
- Lakes Region Partnership for Public Health
- Lamprey Health Care
- LRGHealthcare
- Manchester Community College
- Manchester Community Health Center
- Memorial Hospital
- Mid-State Health Center
- Monadnock Community Hospital
- NH Department of Administrative Services
- NH Department of Education, Services for Blind & Visually Impaired
- NH Department of Health and Human Services
 - Bureau of Developmental Services
 - Bureau of Elderly and Adult Services
 - Division of Public Health Services
 - Office of Minority Health & Refugee Affairs
- NH Department of Safety, Bureau of Emergency Medical Services
- NH Department of Transportation
- NH Food Bank
- NH Hospital Association
- NH Housing and Urban Development
- NH Medical Society
- NH Public Health Association
- NH Stroke Collaborative
- North Country Health Consortium
- Northeast Health Care Quality Foundation
- Southern NH Area Health Education Center (SNHAHEC)
- Tobacco Free New Hampshire Network
- Town of Exeter
- University of New Hampshire Institute for Health Policy & Practice
- University of New Hampshire – Manchester
- Upper Valley Public Health Advisory Council
- Valley Regional Hospital
- Veterans Health Administration
- Walgreens
- YMCA of Greater Nashua

Meeting participants discussed six goals and identified priority strategic actions for each goal to be incorporated into this strategic action plan. The six goals discussed were aligned with the priorities of the Centers for Disease Control and Prevention's (CDC's) Heart Disease and Stroke Prevention Program, including:

1. Controlling high blood pressure;
2. Controlling high blood cholesterol;
3. Increasing awareness of signs and symptoms of heart attack and stroke and the need to call 911;
4. Improving emergency response;
5. Improving quality of care; and
6. Eliminating disparities (CDC, n.d.).

Each goal was strategically identified by the CDC as an integral component to categorically reduce the burden of heart disease and stroke across the country. The following is a brief description of each goal and how achieving improvement in each of these areas is necessary in order to reduce the incidence of heart disease and stroke.

The *prevention of risk factors*, such as high blood pressure and high blood cholesterol levels, for heart disease and stroke will reduce the incidence of these health conditions.



Controlling high blood pressure: High blood pressure increases an individual's risk for dangerous health conditions, including heart attacks, strokes, and chronic heart failure. By controlling high blood pressure through medication or behavior modification, individuals can drastically reduce their risk for heart disease and stroke.

- It is estimated that 67 million American adults (31%) have high blood pressure (CDC, 2012).
- In 2013, approximately 30.1% of New Hampshire residents reported having been told that they have high blood pressure. Among those with high blood pressure, nearly 25% reported that they were not taking any medicine for it (Cadet, 2013).
- A 12- to 13-point reduction in systolic blood pressure can reduce heart attacks by 21%, stroke by 37%, and total cardiovascular-related deaths by 25% (CDC, n.d.).
- About seven of every 10 people having their first heart attack, and eight of every 10 people having their first stroke, have high blood pressure (Go et al., 2012).
- About 60% of people with diabetes also have high blood pressure (CDC, 2014b). Among adults with diabetes, the risk of heart disease and stroke can be reduced by 33-50% by efforts to control high blood pressure (CDC, 2011a).

- Reducing the average amount of salt or sodium that people eat from 3,400 milligrams (mg) to 2,300 mg per day may reduce cases of high blood pressure by 11 million individuals and save \$18 billion in health care costs every year (National Heart, Lung, and Blood Institute, 2005). In addition, even more savings would likely be seen if those who are 51 years and older, are African American, or have hypertension, diabetes, or chronic kidney disease lowered their sodium intake to the level recommended by the 2010 Dietary Guidelines for Americans (USDA & US DHHS, 2010).



Controlling high blood cholesterol: While cholesterol is a necessary element for certain biological processes, too much low-density lipoprotein (LDL) cholesterol, or “bad” cholesterol, can drastically increase an individual’s risk for heart disease or stroke.

- High blood cholesterol has no symptoms, so many people don’t know that their cholesterol is too high (National Heart, Lung, and Blood Institute, 2005).
- Less than half of adults with high LDL cholesterol get treatment (CDC, 2011b).
- In 2013, 36.7% of adults in New Hampshire reported having high blood cholesterol levels (CDC, 2013d).

Even with optimal preventive efforts, some instances of heart attack and stroke are unavoidable. In cases such as these, the *effectiveness of response* by community members and emergency response teams can determine whether or not the heart attack or stroke victim will live or die. By being better informed, the public and emergency responders can recognize signs and symptoms earlier and ensure each heart attack or stroke victim quickly receives the care he or she needs.



Increasing awareness of signs and symptoms and when to call 9-1-1 for heart attack and stroke: Knowledge is power, and if more community members know how to identify signs and symptoms of a heart attack or stroke, emergency responders can be notified earlier and heart attack and stroke victims can receive the care that they need.

- Only 38% of the public is aware of all major symptoms of a stroke and knows to call 9-1-1 (CDC, 2014c).
- Only 11% of the public recognizes the major signs and symptoms of a heart attack and knows to call 9-1-1 (CDC, n.d.).



Improving emergency response: Emergency responders are commonly the first health professionals on the scene to provide care to heart attack or stroke victims. They also serve as the bridge between everyday settings and hospitals, which means the care they provide is crucial to increasing the chance for a positive outcome.

- Of eligible stroke victims, it is estimated that only 3 to 10% receive emergency thrombolytic therapy that can support recovery (CDC, n.d.).
- 47% of heart attack deaths occur before an ambulance arrives (CDC, n.d.).
- 48% of stroke deaths occur before hospitalization (CDC, n.d.).

There are many external determinants of health that can have a significant impact on the prevalence of heart disease or stroke within a population. While prevention and acute treatment are instrumental in reducing the burden of heart disease and stroke, *quality of care* needs to be improved and standardized and *socioeconomic disparities* that impact health outcomes need to be addressed in order to systematically reduce the burden of these health crises.



Improving quality of care: Care provided in primary health care settings can have a tremendous impact on preventing first and second incidences of heart disease and stroke and reducing the burden of heart disease and stroke. Standardizing guidelines and controlling risk factors on a consistent basis can gradually improve the health of high-risk patients.

- Controlling risk factors and diseases, such as lowering cholesterol levels, can reduce the risk of having a heart attack, needing heart bypass surgery or angioplasty, and dying of heart disease (CDC, 2013b).
- Improving the quality of health care is an essential area of focus for preventing and treating cardiovascular disease. For example, the Million Hearts Initiative is a public-private partnership led by the Centers for Disease Control and Prevention, with the goal of preventing 1 million heart attacks and strokes by 2017. The initiative is focusing on aspirin use, blood pressure and blood cholesterol screenings, clinical decision and caregiver support, and smoking cessation to achieve this goal.
- Promote use of electronic health records with clinical decision support tools and patient registries, including patient referrals to chronic disease prevention and self-management education programs.



Eliminating disparities: Disparities in health care access and health outcomes can exist between sexes, socioeconomic statuses, races, and ethnicities. Eliminating these disparities, especially those that impact health, is an important step in reducing the burden of heart disease and stroke across New Hampshire's population as a whole.

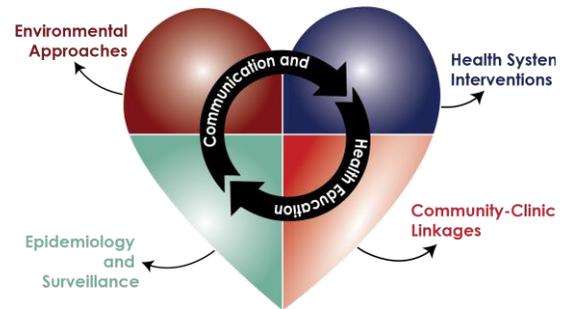
- In 2013, the self-reported prevalence of coronary heart disease in New Hampshire was higher among males, those with a total income less than \$25,000, and those with a high school education or less (CDC, 2014b).

- Risk of having a first stroke is nearly twice as high for blacks as for whites, and blacks are more likely to die following a stroke than whites (Go et al., 2013).
- Hispanics' risk for stroke is between that of whites and blacks (National Heart, Lung, and Blood Institute, 2005).
- In 2009, 34% of people hospitalized for stroke were younger than 65 years (CDC, 2014c).
- In 2013, Hispanics were three times more likely than white, non-Hispanics to report a time in the past year when they needed to see a doctor, but could not due to cost (Norton & Delay, 2013).

NEW HAMPSHIRE HEART DISEASE & STROKE PREVENTION ACTION PLAN: 2015 - 2020

ORGANIZATION OF THIS ACTION PLAN

In order to address the six goals previously described for reducing the burden of heart disease and stroke, this action plan is organized by four action areas, or domains, determined by the CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) as key areas for focusing work to prevent and control chronic diseases, including cardiovascular disease (CDC, 2013c). The four domains of action are: *Epidemiology and Surveillance*, *Environmental Approaches*, *Health System Interventions*, and *Community-Clinical Linkages*. In addition to work in these four domains, the New Hampshire Heart Disease and Stroke Prevention Action Plan will be supported by a fifth area of *Communication and Health Education* activities to ensure continuous coordination and communication among stakeholders and to promote health education and awareness among the general population.



EPIDEMIOLOGY AND SURVEILLANCE

The *Epidemiology and Surveillance* domain includes activities to gather and analyze data and information on the health of the state's population, as well as dissemination of population health status information and trends to the public, partner organizations, and decision makers in the community. In addition, this domain includes the evaluation of programs and services in order to assess effectiveness, prioritize, and monitor progress.

ENVIRONMENTAL APPROACHES

Improving the social and physical environment to support health and healthful behaviors can make it easier for an individual to take charge of their own health. Examples of actions in the domain of *Environmental Approaches* include ensuring opportunities to purchase healthy foods in all communities, increasing opportunities for physical activity in child care and schools, and implementing smoke-free policies in public places.

HEALTH SYSTEM INTERVENTIONS

Interventions that improve the delivery of preventive and health care services can help to prevent disease, detect diseases early, and reduce complications of disease. Examples of actions in the domain *Health System Interventions* include implementation and effective use of electronic health records, increasing access to care, and implementation of patient-centered models of care.

COMMUNITY-CLINICAL LINKAGES

Actions in the domain of *Community-Clinical Linkages* can help to improve connections with community resources available to help those with or at risk for heart disease and stroke to manage their conditions or risks. Individuals are more likely to participate in programs that can help them manage their conditions when the program is supported by the community and recommended by their clinician. Examples of such programs include chronic disease self-management education programs in community settings targeting at-risk populations, systems that increase clinician referrals to education programs and vice versa, and work with the population to increase use of preventive and health care services.

COMMUNICATION & HEALTH EDUCATION

In addition to the four domains of action to address the six population health improvement goals, this action plan includes strategies around communication and health education. In order for any of the strategies in this action plan to be successful, communication needs to occur among partners. In addition, involved organizations need to work with their patients, residents, and members to ensure that these individuals have the knowledge and resources necessary to prevent and treat heart disease and strokes.

Each of these four action domains - *Epidemiology and Surveillance*, *Environmental Approaches*, *Health System Interventions*, and *Community-Clinical Linkages* - supported with effective *Communication and Health Education* activities, represents an individual path towards reaching the common vision and progress on the six health improvement goals² outlined previously in this plan. However, to be most impactful, the activities across these domains must be mutually reinforcing and aligned.

The work towards achieving progress on the six goals can be classified by the action domain under which it falls. The table following shows the interaction between the six goals this plan aims to accomplish and the four action domains, supported by communication and health education activities, in which work will occur. In addition, a more complete table including each strategy is included as Appendix A.

² 1. Controlling high blood pressure; 2. Controlling high blood cholesterol; 3. Increasing awareness of signs and symptoms of heart attack and stroke and the need to call 911; 4. Improving emergency response; 5. Improving quality of care; and 6. Eliminating disparities.

Table 1. Interaction between goals this plan aims to accomplish and domains in which actions will occur.

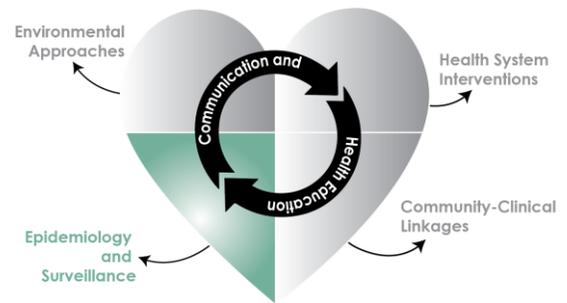
Goals	Epidemiology & Surveillance	Environmental Approaches	Health System Interventions	Community-Clinical Linkages	Communication & Health Education
1. Controlling high blood pressure	X	X	X	X	X
2. Controlling high blood cholesterol	X	X	X	X	X
3. Increasing awareness of signs and symptoms of heart attack and stroke and the need to call 911			X	X	X
4. Improving emergency response			X	X	
5. Improving quality of care			X	X	
6. Eliminating disparities	X	X	X	X	X

For each strategy proposed in this action plan, action items, a lead agency (or agencies), current partners, and criteria for success are identified. The action items lay out an initial plan for moving the strategy forward. The lead agencies are responsible for organizing efforts around accomplishing the strategy. Current partners are those that will work with the lead agencies to implement the strategy. However, the list of current partners in the action plan is not in any way exhaustive. Assistance will be needed from many more additional partners as the strategies are implemented. Criteria for success describe what success would look like if the strategy is successfully implemented. Other potential evaluation measures are included in Appendix B: Heart Disease and Stroke Goals and Indicators. In addition, the action plan that follows indicates which of the six goals each strategy is intended to address with the one or more of the following icons.



DOMAIN 1: EPIDEMIOLOGY & SURVEILLANCE

Epidemiology and surveillance efforts will be vital throughout the implementation of this plan in order to assess the burden of heart disease and stroke in New Hampshire, as well as monitor progress towards reaching the target indicators specified in the *NH State Health Improvement Plan 2013-2020*.



STRATEGY 1.1: APPLY BEST PRACTICES IN EPIDEMIOLOGY AND SURVEILLANCE TO MONITOR STATUS AND TRENDS IN THE HEALTH OF NEW HAMPSHIRE'S POPULATION RELATED TO HEART DISEASE AND STROKE.

Action Items:

- Continue to collect various sources of data, including death data through vital statistics, hospital discharge data, Behavioral Risk Factor Surveillance System (BRFSS) data, and population data from the U.S. Census Bureau.
- Ensure relevant data is accessible to the public via New Hampshire's Web-based Interactive System for Data and Outcome Measures (NH Health WISDOM).
- Use collected data to regularly update "The Burden of Heart Disease and Stroke in New Hampshire" report and brief.

Lead Agency:

- NH Department of Health and Human Services (DHHS)

Current Partners:

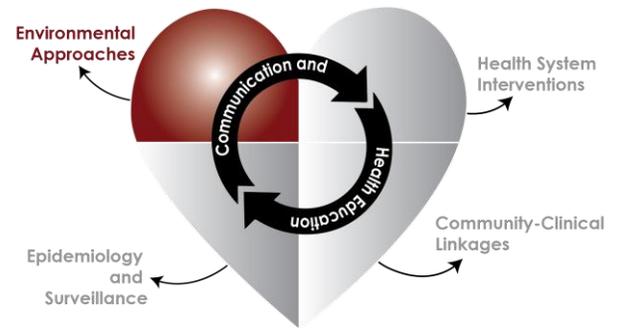
- New Hampshire universities and colleges

Criteria for Success:

- "The Burden of Heart Disease and Stroke in New Hampshire" report and brief are updated with timely and relevant data, as appropriate.
- Data relevant to heart disease and stroke prevention and treatment is current and accessible via NH Health WISDOM.

DOMAIN 2: ENVIRONMENTAL APPROACHES

Environmental approaches that promote health and support and reinforce healthful behaviors will be necessary for the success of this plan. Such approaches include actions to encourage healthy behaviors through community initiatives and policy changes at many levels, including schools, worksites, communities, and the state overall.



STRATEGY 2.1: WORK WITH STAKEHOLDERS ACROSS ALL SECTORS OF SOCIETY TO CREATE ENVIRONMENTAL AND POLICY CHANGES THAT ADDRESS SOCIAL DETERMINANTS OF HEALTH.

Action Items:

- Lead and participate in collaborative activities to increase opportunities for physical activity, including considerations for community design and safety.
- Lead and participate in collaborative activities to address access to healthy, sufficient, and affordable food throughout New Hampshire.
- Lead and participate in collaborative activities that address poverty, unemployment, lack of insurance, and livable wage issues.

Lead Agencies:

- Community Health Institute/JSI
- NH Public Health Association

Current Partners:

- American Heart Association/American Stroke Association (AHA/ASA)
- Foundation for Healthy Communities/HEAL NH
- NH Department of Health and Human Services (DHHS)
- NH Food Bank

Criteria for Success:

- Improvement in indicators of economic environment (e.g., unemployment and household income), physical activity behavior, obesity, community safety, and food environment (e.g., store proximity, access to local foods, food prices, participation in food and nutrition assistance, food bank utilization).



STRATEGY 2.2: PROMOTE A “HEALTH IN ALL POLICIES” APPROACH TO ADDRESS HEALTH BEHAVIORS THAT CAN CONTRIBUTE TO CONTROLLING HIGH BLOOD PRESSURE AND HIGH BLOOD CHOLESTEROL AMONG AT-RISK POPULATIONS IN NEW HAMPSHIRE.

Action Items:

- Increase awareness among policymakers of tools and resources, such as information available from the Association of State and Territorial Health Officers, to support “health in all policies” decision-making processes.
- Disseminate information on evidence-based policies and practices to decision-makers across sectors, including business, education, community planning and development, safety, and local and state government. (e.g., smoke-free environments, school wellness policies, built environment, tobacco taxes).

Lead Agencies:

- Community Health Institute/JSI
- NH Public Health Association

Current Partners:

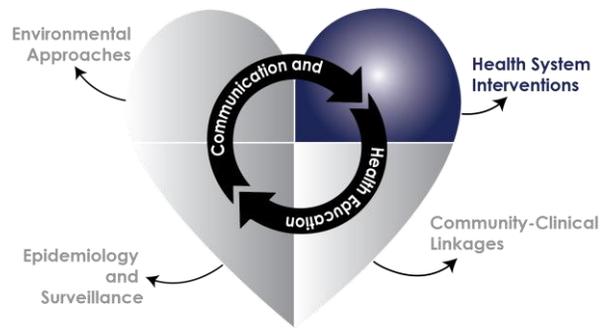
- American Heart Association/American Stroke Association (AHA/ASA)
- American Lung Association
- Foundation for Healthy Communities/HEAL NH
- NH Department of Health and Human Services (DHHS)
- NH Housing and Urban Development
- Tobacco Free New Hampshire Network

Criteria for Success:

- Impacts on health are assessed and considered in policy choices across multiple sectors of society through application of evidence and model practices.

DOMAIN 3: HEALTH SYSTEM INTERVENTIONS

Health system interventions that improve the delivery of preventive and health care services to prevent disease, detect diseases early, and reduce complications of disease will be critical to the implementation of this plan. Health system interventions identified as strategies in this action plan include adoption of consistent clinical guidelines, dissemination of evidence-based practices, supporting implementation of patient-centered models of care, identifying barriers to calling 9-1-1, and determining areas for improvement in emergency response to heart attacks and strokes.



STRATEGY 3.1: INCREASE STANDARDIZATION OF CARE THROUGH ADOPTION OF CONSISTENT CLINICAL GUIDELINES AND DISSEMINATION OF EVIDENCE-BASED PRACTICES.

Action Items:

- Expand implementation of the Million Hearts Initiative to additional communities and practice sites through dissemination and training around the “Ten Steps for Improving Blood Pressure Control in New Hampshire: A Practical Guide for Clinicians and Community Partners (Fedrizzi and Persson).”
- Identify and disseminate consistent guidelines and protocols for prevention screening, treatment, and referral.
- Identify and disseminate information on evidence-based practices, including smoking cessation, and tools for primary and secondary prevention of heart disease and stroke.
- Increase utilization of evidence-based clinical guidelines of comprehensive treatment of tobacco use and dependence.
- Improve capacity for and consistency of data collection and reporting on clinical measures and health outcomes.

Lead Agencies:

- NH Medical Society
- NH Department of Health and Human Services (DHHS)

Current Partners:

- American Heart Association/American Stroke Association (AHA/ASA)
- Community Health Centers
- Community Health Institute/JSI
- Dartmouth-Hitchcock Medical Center (DHMC)
- Foundation for Healthy Communities/HEAL NH
- Healthcare Providers
- Insurers
- NH Stroke Collaborative
- New England Quality Innovation Network-Quality Improvement Organization (QIN-QIO)

Criteria for Success:

- Guidelines developed and disseminated.
- Increase in the number of provider practices and hospitals reporting adoption of guidelines.
- Information on evidence-based practices developed and disseminated.
- Increase in the number of provider practices and hospitals reporting adoption of evidence-based practices.
- Increase in the number of communities and practice sites participating in Million Hearts.
- Improved availability of clinical and health outcome indicator data in a timely manner.



STRATEGY 3.2: SUPPORT INITIATIVES TO IMPLEMENT PATIENT-CENTERED MODELS OF CARE THAT ARE RESPONSIVE TO COMMUNITY CONTEXT AND INDIVIDUAL PATIENT PREFERENCES, NEEDS, AND VALUES.

Action Item:

- Provide training and financial support of patient care system redesign efforts, including patient-centered medical homes and team-based care with coordinated participation of pharmacists, nutritionists, health educators, nurses, case managers, and community health workers.

Lead Agency:

- NH Department of Health and Human Services (DHHS)

Current Partners:

- City of Manchester, Health Department
- City of Nashua, Division of Public Health and Community Services
- Community Health Centers
- Manchester Community College
- New England Quality Innovation Network-Quality Improvement Organization (QIN-QIO)
- Southern NH Area Health Education Center (SNHAHEC)

Criteria for Success:

- Increase in the number of certified patient-centered medical homes.
- Increase in the number of community health workers in the workforce.



STRATEGY 3.3: IDENTIFY POLICIES AROUND AND BARRIERS TO CALLING 9-1-1, INCLUDING REQUIREMENTS FOR EMS TRANSPORT.

Action Items:

- Identify barriers to calling 9-1-1.
- Explore options for addressing barriers.
- Look for opportunities to improve stroke systems of care in NH, including encouraging the development of patient care transport/transfer agreements, protocols, or Memoranda of Understanding (MOUs).
- Develop and implement appropriate and consistent messaging to the general public on the importance of recognizing heart attack and stroke signs and symptoms and calling 911 (see Strategy 5.1).

Lead Agencies:

- NH Department of Safety, Bureau of Emergency Medical Services (EMS)
- NH Division of Public Health Services

Current Partners:

- American Heart Association/American Stroke Association (AHA/ASA)
- Critical Access Hospitals
- NH Hospital Association
- NH Stroke Collaborative

Criteria for Success:

- Barriers identified.
- Solutions implemented.



STRATEGY 3.4: CONVENE A MULTI-SECTOR WORKGROUP TO DETERMINE POTENTIAL AREAS FOR IMPROVEMENT IN EMERGENCY RESPONSE TO HEART ATTACKS AND STROKES.

Action Item:

- Convene a group to discuss and determine areas for improvement with emergency response to heart attacks and strokes.

Lead Agency:

- NH Department of Safety, Bureau of Emergency Medical Services (EMS)

Current Partners:

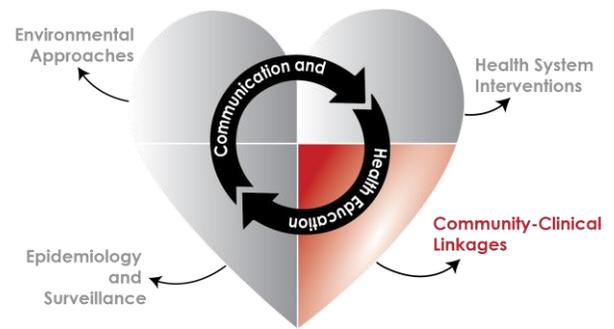
- American Heart Association/American Stroke Association (AHA/ASA)
- Hospital EMS Coordinators
- NH Division of Public Health Services (DPHS)
- NH Hospital Association
- NH Stroke Collaborative

Criteria for Success:

- Areas for improvement identified, plan for action developed including an evaluation plan, and plan implemented.

DOMAIN 4: COMMUNITY-CLINICAL LINKAGES

Community-clinical linkages connect organizations with the common goal of improving the health of people and communities, including healthcare providers, not-for-profit organizations, and public health agencies, so that they can work together to improve patients' access to services (AHRQ, n.d.). Community-clinical linkages that were identified as strategies for this action plan include increasing town participation in efforts that promote the chain of survival, improving coordination of care at the community-level, and increasing the level of patient and community engagement in prevention and self-management efforts.



STRATEGY 4.1: INCREASE AWARENESS OF AND PARTICIPATION IN COMMUNITY-BASED EFFORTS THAT PROMOTE THE CHAIN OF SURVIVAL.

Action Items:

- Implement efforts to strengthen the chain of survival, including:
 - Immediate recognition of cardiac arrest and activation of the emergency response system.
 - Early cardiopulmonary resuscitation (CPR) with an emphasis on chest compressions.
 - Increase easy access to free or low-cost CPR training. Consider offering CPR training for NH high school students.
 - Address personal barriers to intervening.
 - Increase public availability and access to automated external defibrillators (AEDs).
 - Increase public education efforts around AEDs to increase comfort among potential users.
 - Increase awareness among communities of state vendor discount on AEDs.
 - Increase advanced life support (ALS) capabilities throughout New Hampshire.

- Research what is currently being done in the 21 Heart Safe Communities in New Hampshire, including barriers, areas for improvement, and successes, in order to gather lessons for a broader roll out to interested communities.

Lead Agency:

- American Heart Association/American Stroke Association (AHA/ASA)

Current Partners:

- NH Department of Safety, Bureau of Emergency Medical Services (EMS)
- Regional Public Health Networks

Criteria for Success:

- Increase in the number of communities implementing chain of survival initiatives.
- Increase in the number of people trained each year in CPR.
- Increase in the number of publicly available AEDs.



STRATEGY 4.2: IMPROVE SYSTEMS OF CARE AT THE COMMUNITY-LEVEL THROUGH DEVELOPMENT OF MULTI-DISCIPLINARY, MULTI-SECTOR PARTNERSHIPS TO IMPLEMENT WORKFORCE TRAINING AND PRACTICE IMPROVEMENT INITIATIVES.

Action Items:

- Work with community systems and regions to identify and engage organizational stakeholders to include worksites, educational institutions, home-based care providers, public health, human services, recreation, faith-based, and civic organizations.
- Provide leadership training and support of a statewide learning collaborative on multi-disciplinary, multi-sector models and practices for improving heart disease and stroke health outcomes.
- Support initiatives to expand workforce diversity through training, employment, and reimbursement practices (including expanded use of community health workers).

Lead Agency:

- NH Department of Health and Human Services (DHHS)

Current Partners:

- Community Health Centers
- Community Health Institute/JSI
- Foundation for Healthy Communities/HEAL NH
- NH Stroke Collaborative
- Regional Public Health Networks

Criteria for Success:

- Increase in the number of active community-based coalitions and participants.
- Increase in the number of leadership training participants.
- Improvements in clinical measures related to cardiovascular health.



STRATEGY 4.3: IMPROVE COORDINATION OF CARE AT THE COMMUNITY-LEVEL THROUGH INCREASED CAPACITY FOR INFORMATION EXCHANGE, DECISION SUPPORT, REPORTING, AND EVALUATION.

Action Items:

- Support development and implementation of community data systems for exchanging information and referrals between clinical and non-clinical settings. Provide training to community stakeholders on using data from electronic health records and health information exchanges for quality improvement and outcome evaluation.
- Promote development and application of health information technology to improve care, including transitions of care (e.g., use of registries, patient recall, provider reminders, referral tracking, evidence-based decision support systems, provider and system-level feedback reports).
- Increase utilization of QuitWorks – NH.

Lead Agencies:

- Community Health Access Network (CHAN)
- NH Department of Health and Human Services (DHHS)

Current Partners:

- Cheshire Medical Center/Dartmouth-Hitchcock Keene
- Community Health Centers
- Community Health Institute/JSI
- Manchester Health Department
- NH Public Health Association
- New England Quality Innovation Network-Quality Improvement Organization (QIN-QIO)

Criteria for Success:

- Increase in the number of operational community data exchanges.
- Increase in the number of data training participants.
- Increase Health Information Technology (HIT) meaningful use measures.
- Improvement in quality measures, including emergency department and inpatient admission/readmission rates.
- Increase in the number of providers referring patients utilizing QuitWorks-NH.



STRATEGY 4.4: IMPROVE INDIVIDUAL AND POPULATION HEALTH OUTCOMES THROUGH APPLICATION OF MORE EFFECTIVE TECHNIQUES FOR PATIENT AND COMMUNITY ENGAGEMENT IN PREVENTION AND SELF-MANAGEMENT.

Action Items:

- Develop effective information and education messages and materials for patient and community engagement.
- Develop and maintain an on-line repository of prevention best practices and resources for community partners (e.g., tools and resources for diabetes educators).

Lead Agency:

- NH Division of Public Health Services

Current Partners:

- Mid-State Health Center
- NH Insurers

Criteria for Success:

- On-line repository of prevention information developed and utilized.
- User feedback of on-line repository collected and considered.

COMMUNICATION & HEALTH EDUCATION

Communicating with the public will be necessary in order for strategies across the four domains to have an impact. In order to support strategies in all domains, a statewide communications strategy will be developed and implemented.

STRATEGY 5.1: DEVELOP AND IMPLEMENT A STATEWIDE COMMUNICATIONS STRATEGY WITH THE GOALS OF:



1. Controlling high blood pressure and cholesterol;
2. Increasing awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1;
3. Engaging patients and the community in efforts to improve individual and population health outcomes;
4. Educating the public on heart disease- and stroke-related health disparities; and
5. Educating the public on available community-based resources for promoting heart health, as well as tips and tools for prevention and self-help strategies.

Action Items:

- Develop a communications plan.
 - Convene a communications committee with members from a variety of sectors and agencies.
 - Review the Coordinated Chronic Disease Strategic Communications Plan 2012-2015.
 - Determine desired target audiences for statewide campaign. Target audiences may differ by communication goal.
 - Determine effective channels to reach target audiences, including the current and best messengers to deliver the information.
- Adapt and/or develop consistent and understandable messaging.

- Identify and review best practice interventions, including evidence-based practices, NH-based promising practices, and existing programs, for each desired target audience. Identify existing implementation tools for interventions.
- Research and select heart disease and stroke-related health disparities to be included in messaging. Demographic issues to consider include age, sex, race/ethnicity, income, isolation, and caregiver support. Community characteristics to consider include access to food, access to recreational facilities, safety, employment opportunities, and transportation.
- Determine the interventions that best align with the target audiences and communications committee's expertise.
- Determine consistent key messages. Ensure messages are understandable to various literacy and language levels.
- Determine shared measurement indicators and systems that will be used to assess the success of the communications efforts among each target audience.
- Disseminate messaging across New Hampshire.
 - Promote participation in statewide communications efforts. Develop a strategy to promote participation to applicable partners.
 - Develop and disseminate toolkits to participating entities to support implementation.
 - Integrate messaging across state programs to ensure consistency.
 - Integrate messaging into other efforts around the state.
- Evaluate campaign and communicate progress.

Lead Agencies:

- American Heart Association/American Stroke Association (AHA/ASA)
- NH Stroke Collaborative

Current Partners:

- Healthcare insurers
- NH Department of Safety, Bureau of Emergency Medical Services
- NH Division of Public Health Services (DPHS)
- NH Food Bank

Criteria for Success:

- Statewide heart disease and stroke prevention communications plan developed.
- Campaign evaluated according to shared measurement indicators identified, including percent of adults with high blood pressure, percent of adults with high blood cholesterol, coronary heart disease death rates, and stroke death rates.
- Up-to-date progress on shared measurement indicators provided via NH Health WISDOM.
- Positive change in the percent of people able to recognize the signs and symptoms of heart attack and stroke.
- Progress made and areas for improvement reported through a regular update of “The Burden of Heart Disease and Stroke in New Hampshire,” which currently uses 2013 data (NH DPHS, 2014).

A CALL TO ACTION

This plan provides a framework of related strategies to reduce the burden of heart disease and stroke in New Hampshire and meet the target indicators for heart disease and stroke specified by the *NH State Health Improvement Plan 2013-2020*. However, the success of this plan depends on the commitment and engagement from a wide range of partners and organizations throughout the state.

For more information about this plan, efforts taking place in New Hampshire to reduce the burden of heart disease and stroke, and to get involved in any of these strategies as a Lead Agency or Current Partner, please contact the NH Heart Disease Stroke Prevention Program at 603-271-4544, 1-800-852-3345 x4544, or nhhdsp@dhhs.state.nh.us.

HOW CAN YOU HELP?

There are small steps you can take now to move New Hampshire towards these goals. Examples of these small steps are listed below, but this is not a complete list. Think about what other actions you and your organization can take to reduce the burden of heart disease and stroke in New Hampshire. How can you help New Hampshire residents control high blood pressure and high blood cholesterol and learn the signs and symptoms of heart attack and stroke and the need to call 911? What can you and your organization do to improve emergency response, improve quality of care, and eliminate health disparities within New Hampshire?

If you are a hospital or health care provider:

- Provide heart disease and stroke awareness information to patients.
- Increase standardization of care through adoption of consistent clinical guidelines and dissemination of evidence-based practices.
- Join the Million Hearts Initiative.
- Support initiatives to implement patient-centered models of care.
- Improve coordination of care at the community level through development of multi-disciplinary, multi-sector partnerships and systems and increased capacity for information exchange.
- Engage patients and the community in prevention and self-management efforts, including smoking cessation.

If you are an EMS provider:

- Educate others on the signs and symptoms of stroke and heart attack and the need to call 911.

If you are an employer:

- Assess benefit plans and determine if adequate coverage is provided for preventative services, as well as treatment for heart disease and stroke.
- Implement healthy environmental policies, including tobacco-free campuses, healthy food options, and opportunities for physical activity.
- Educate employees on the signs and symptoms of stroke and heart attack and the need to call 911.
- Provide CPR training to your employees.
- Have AEDs available at worksites.

If you are a school:

- Implement healthy environmental policies, including healthy food options and opportunities for physical activity.
- Ensure health education classes encourage healthy habits, including good nutrition and an active lifestyle.
- Provide CPR/AED training to staff and students.

If you work in public health:

- Educate others on the signs and symptoms of stroke and heart attack and the need to call 911.
- Advocate for policy changes addressing health behaviors that can be drivers for controlling high blood pressure and high blood cholesterol among at-risk populations.
- Promote participation in the Million Hearts Initiative.

If you are a community member:

- Promote participation in community-based initiatives aimed at strengthening the chain of survival, including encouraging availability of CPR training and AEDs in your community.
- Learn the signs and symptoms of stroke and heart attack and call 911 if you see someone with stroke and heart attack signs and symptoms.
- Advocate for policy changes addressing health behaviors that can be drivers for controlling high blood pressure and high blood cholesterol among at-risk populations.

APPENDIX A: CROSSWALK OF STRATEGIES, GOALS, AND DOMAINS

	Strategies	Applicable Domain
<p>Goal 1: Controlling high blood pressure</p> 	<p>Strategy 1.1: Apply best practices in epidemiology and surveillance to monitor status and trends in the health of New Hampshire's population related to heart disease and stroke. <i>(page 15)</i></p>	Epidemiology & Surveillance
	<p>Strategy 2.1: Work with stakeholders across all sectors of society to create environmental and policy changes that address social determinants of health. <i>(page 16)</i></p>	Environmental Approaches
	<p>Strategy 2.2: Promote a "Health in All Policies" approach to address health behaviors that can contribute to controlling high blood pressure and high blood cholesterol among at-risk populations in New Hampshire. <i>(page 17)</i></p>	Environmental Approaches
	<p>Strategy 5.1: Develop and implement a statewide communications strategy with the goals of:</p> <ul style="list-style-type: none"> • Controlling high blood pressure and cholesterol; • Increasing awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1; • Engaging patients and the community in efforts to improve individual and population health outcomes; • Educating the public on heart disease- and stroke-related health disparities; and • Educating the public on available community-based resources for promoting heart health, as well as tips and tools for prevention and self-help strategies. <i>(page 28)</i> 	Communication & Health Education
<p>Goal 2: Controlling high blood cholesterol</p> 	<p>Strategy 1.1: Apply best practices in epidemiology and surveillance to monitor status and trends in the health of New Hampshire's population related to heart disease and stroke. <i>(page 15)</i></p>	Epidemiology & Surveillance
	<p>Strategy 2.1: Work with stakeholders across all sectors of society to create environmental and policy changes that address social determinants of health. <i>(page 16)</i></p>	Environmental Approaches
	<p>Strategy 2.2: Promote a "Health in All Policies" approach to address health behaviors that can contribute to controlling high blood pressure and high blood cholesterol among at-risk populations in New Hampshire. <i>(page 17)</i></p>	Environmental Approaches
	<p>Strategy 5.1: Develop and implement a statewide communications strategy with the goals of:</p> <ul style="list-style-type: none"> • Controlling high blood pressure and cholesterol; 	Communication & Health Education

Strategies		Applicable Domain
	<ul style="list-style-type: none"> Increasing awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1; Engaging patients and the community in efforts to improve individual and population health outcomes; Educating the public on heart disease- and stroke-related health disparities; and Educating the public on available community-based resources for promoting heart health, as well as tips and tools for prevention and self-help strategies. (page 28) 	
Goal 3: Increasing awareness of signs and symptoms of heart attack and stroke and the need to call 911 	Strategy 3.3: Identify policies around and barriers to calling 9-1-1, including requirements for EMS transport. (page 21)	Health System Interventions
	Strategy 4.1: Increase awareness of and participation in community-based efforts that promote the chain of survival. (page 23)	Community-Clinical Linkages
	Strategy 5.1: Develop and implement a statewide communications strategy with the goals of: <ul style="list-style-type: none"> Controlling high blood pressure and cholesterol; Increasing awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1; Engaging patients and the community in efforts to improve individual and population health outcomes; Educating the public on heart disease- and stroke-related health disparities; and Educating the public on available community-based resources for promoting heart health, as well as tips and tools for prevention and self-help strategies. (page 28) 	Communication & Health Education
Goal 4: Improving emergency response 	Strategy 3.3: Identify policies around and barriers to calling 9-1-1, including requirements for EMS transport. (page 21)	Health System Interventions
	Strategy 3.4: Convene a multi-sector workgroup to determine potential areas for improvement in emergency response to heart attacks and strokes. (page 22)	Health System Interventions
	Strategy 4.1: Increase awareness of and participation in community-based efforts that promote the chain of survival. (page 23)	Community-Clinical Linkages
Goal 5: Improving quality of	Strategy 3.1: Increase standardization of care through adoption of consistent clinical guidelines and dissemination of evidence-based practices. (page 18)	Health System Interventions

Strategies		Applicable Domain
care 	Strategy 4.2: Improve systems of care at the community-level through development of multi-disciplinary, multi-sector partnerships to implement workforce training and practice improvement initiatives. <i>(page 24)</i>	Community-Clinical Linkages
	Strategy 4.3: Improve coordination of care at the community-level through increased capacity for information exchange, decision support, reporting, and evaluation. <i>(page 25)</i>	Community-Clinical Linkages
	Strategy 4.4: Improve individual and population health outcomes through application of more effective techniques for patient and community engagement in prevention and self-management. <i>(page 26)</i>	Community-Clinical Linkages
Goal 6: Eliminating disparities 	Strategy 2.1: Work with stakeholders across all sectors of society to create environmental and policy changes that address social determinants of health. <i>(page 16)</i>	Environmental Approaches
	Strategy 3.2: Support initiatives to implement patient-centered models of care that are responsive to community context and individual patient preferences, needs, and values. <i>(page 20)</i>	Health System Interventions
	Strategy 4.2: Improve systems of care at the community-level through development of multi-disciplinary, multi-sector partnerships to implement workforce training and practice improvement initiatives. <i>(page 24)</i>	Community-Clinical Linkages
	Strategy 5.1: Develop and implement a statewide communications strategy with the goals of: <ul style="list-style-type: none"> • Controlling high blood pressure and cholesterol; • Increasing awareness of the signs and symptoms of heart attack and stroke and the need to call 9-1-1; • Engaging patients and the community in efforts to improve individual and population health outcomes; • Educating the public on heart disease- and stroke-related health disparities; and • Educating the public on available community-based resources for promoting heart health, as well as tips and tools for prevention and self-help strategies. <i>(page 28)</i> 	Communication & Health Education

APPENDIX B: HEART DISEASE AND STROKE GOALS AND INDICATORS

A grid of heart disease indicators is included to provide work groups with a way to identify goals and potential evaluation measures. These goals and indicators support NH Division of Public Health Services' goal of reducing the burden of chronic disease, including heart disease and stroke.

Broad Outcome Measures		
Indicators	Indicator Type	Source of Measure
• Percent of adults with coronary heart disease	Outcome	BRFSS
• Percent of adults with diabetes who have coronary heart disease	Outcome	BRFSS
• Percent of adults with a history of a myocardial infarction	Outcome	BRFSS
• Percent of adults with a history of a stroke	Outcome	BRFSS
• Coronary heart disease mortality rate	Outcome	NH DVRA
• Heart attack mortality rate	Outcome	NH DVRA
• Congestive heart failure mortality	Outcome	NH DVRA
• Stroke mortality	Outcome	NH DVRA
• Heart attack hospitalization rate	Outcome	Hospital Discharge
• Congestive heart failure hospitalization rate	Outcome	Hospital Discharge
• Stroke hospitalization rate	Outcome	Hospital Discharge
Goal 1: Control High Blood Pressure		
Outcome Measures		
Indicators	Indicator Type	Source of Measure
• Percent of adults with hypertension	Outcome	BRFSS
• Percent of adults in Rural Health Clinics (RHCs) with hypertension that is controlled	Outcome	1305
• Percent of adults aged 18-85 years with hypertension at Primary Care Agencies (i.e., Community Health Centers contracted with MCH) with a blood pressure less than 140/90 on last measurement	Outcome	MCH
• Percent of adults with hypertension at Federally Qualified Health Centers (FQHCs) whose last blood pressure was less than 140/90	Outcome	MCH
• Percent of adults with hypertension at homeless clinics (contracted with MCH) with a blood pressure less than 140/90 on last measurement	Outcome	MCH

1305=State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity, and Associated Risk Factors and Promote School Health
 BRFSS=Behavioral Risk Factor Surveillance System HRSA=Health Resources and Service Administration MCH=NH DPHS, Maternal and Child Health Section
 NH DVRA=NH Department of State, Division of Vital Record Administration HDSP=NH DPHS, Heart Disease and Stroke Prevention Program

Clinical Management: Screening		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adult encounters at Primary Care Agencies (contracted with MCH) with a blood pressure recorded 	Process	MCH
<ul style="list-style-type: none"> Percent of adult encounters at homeless clinics (contracted with MCH) with a blood pressure recorded 	Process	MCH
Clinical Management: Lifestyle Screening, Counseling, and Intervention		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults with hypertension at Primary Care Agencies (contracted with MCH) that had lifestyle screening and counseling provided on diet (based on chart review) 	Process	MCH
<ul style="list-style-type: none"> Percent of adults with hypertension at Primary Care Agencies (contracted with MCH) that had lifestyle screening and counseling provided on exercise (based on chart review) 	Process	MCH
<ul style="list-style-type: none"> Percent of adults with hypertension at Primary Care Agencies (contracted with MCH) that had lifestyle screening and counseling provided on tobacco cessation (based on chart review) 	Process	MCH
<ul style="list-style-type: none"> Percent of adults with hypertension at Primary Care Agencies (contracted with MCH) that had lifestyle screening and counseling provided on blood pressure monitoring (based on chart review) 	Process	MCH
<ul style="list-style-type: none"> Percent of adults with hypertension at Primary Care Agencies (contracted with MCH) that had lifestyle screening and counseling provided on medication management (based on chart review) 	Process	MCH
Clinical Management: Medical Adherence		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of privately insured adults with hypertension in adherence to blood pressure medications 	Process	1305
<ul style="list-style-type: none"> Percent of Medicaid insured adults with hypertension in adherence to blood pressure medications 	Process	1305
<ul style="list-style-type: none"> Percent of patients with hypertension at Federally Qualified Health Centers (FQHCs) within the North Country Accountable Care Organization (ACO) in adherence to blood pressure medications 	Process	1305

1305=State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity, and Associated Risk Factors and Promote School Health
BRFSS=Behavioral Risk Factor Surveillance System HRSA=Health Resources and Service Administration MCH=NH DPHS, Maternal and Child Health Section
NH DVRA=NH Department of State, Division of Vital Record Administration HDSP=NH DPHS, Heart Disease and Stroke Prevention Program

Clinical Management: Self-Management		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of patients with hypertension at Federally Qualified Health Centers (FQHCs) that have a self-management plan 	Process	1305
<ul style="list-style-type: none"> Percent of patients with hypertension at at Federally Qualified Health Centers (FQHCs) within the North Country Accountable Care Organization (ACO) that have a self-management plan 	Capacity	1305
System Capabilities		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of healthcare systems with Electronic Health Records (EHRs) appropriate for treating hypertension 	Capacity	1305
<ul style="list-style-type: none"> Percent of Rural Health Clinics (RHCs) that have Electronic Health Records (EHRs) appropriate for treating hypertension 	Capacity	1305
<ul style="list-style-type: none"> Percent of patients in healthcare systems with Electronic Health Records (EHRs) appropriate for treating hypertension 	Capacity	1305
<ul style="list-style-type: none"> Percent of patients in Rural Health Clinics (RHCs) that have Electronic Health Records (EHRs) appropriate for treating hypertension 	Capacity	1305
<ul style="list-style-type: none"> Number of healthcare practices in the state using blood pressure registries to improve blood pressure outcomes 	Capacity	HDSP
<ul style="list-style-type: none"> Number of Critical Access Hospital primary care systems using blood pressure registries to improve blood pressure outcomes 	Capacity	HDSP
<ul style="list-style-type: none"> Number of Federally Qualified Health Centers (FQHCs) using blood pressure registries to improve blood pressure outcomes 	Capacity	HDSP
<ul style="list-style-type: none"> Number of primary care practices implementing the “ten steps” for improving blood pressure control (not yet measured) 	Capacity	HDSP
<ul style="list-style-type: none"> Number of providers trained on the “ten steps” to improve blood pressure control (not yet measured) 	Capacity	HDSP
<ul style="list-style-type: none"> Percent of healthcare systems reporting on National Quality Forum – Measure 18 (NQF-18) 	Capacity	1305
<ul style="list-style-type: none"> Percent of Rural Health Clinics (RHCs) reporting on National Quality Forum – Measure 18 (NQF-18) 	Capacity	1305
<ul style="list-style-type: none"> Number of patient centered medical homes (PCMHs) (proxy for the percent of healthcare systems with policies or systems to encourage team 	Capacity	1305

1305=State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity, and Associated Risk Factors and Promote School Health
BRFSS=Behavioral Risk Factor Surveillance System HRSA=Health Resources and Service Administration MCH=NH DPHS, Maternal and Child Health Section
NH DVRA=NH Department of State, Division of Vital Record Administration HDSP=NH DPHS, Heart Disease and Stroke Prevention Program

approach to hypertension)		
<ul style="list-style-type: none"> Number of patients with a patient centered medical home (PCMH) (proxy for the percent of healthcare systems with policies or systems to encourage team approach to hypertension) 	Capacity	1305
<ul style="list-style-type: none"> Percent of healthcare systems within the North Country Accountable Care Organization (ACO) with a policy or system to encourage team approach to hypertension 	Capacity	1305
Goal 2: Control High Cholesterol		
Outcome Measures		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults with high cholesterol 	Outcome	BRFSS
Clinical Management		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults with newly diagnosed hypertension at Primary Care Agencies (contracted with MCH) that had a lipid profile check on chart review 	Process	MCH
<ul style="list-style-type: none"> Percent of patients 18 and older at Federally Qualified Health Centers (FQHCs) with a diagnosis of coronary artery disease (CAD) who were prescribed lipid lowering therapy 	Process	HRSA
Goal 3: Increase awareness of signs/symptoms		
<ul style="list-style-type: none"> Under development 		
Goal 4: Improve emergency response		
<ul style="list-style-type: none"> Under development 		
Goal 5: Improve quality of care		
Clinical Management		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of patients aged 18 and older at Federally Qualified Health Centers (FQHCs) with a diagnosis of ischemic vascular disease (IVD) or had an acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous transluminal coronary angioplasty (PTCA) procedure with aspirin or another antithrombotic therapy 	Process	HRSA
<ul style="list-style-type: none"> Additional measures under development 		

1305=State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity, and Associated Risk Factors and Promote School Health
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Goal 6: Eliminate disparities		
<ul style="list-style-type: none"> Under development 		
Heart Disease and Stroke Risk Factor Measures		
Diabetes: Outcome Measures		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults with diabetes 	Outcome	BRFSS
<ul style="list-style-type: none"> Percent of adults with prediabetes 	Outcome	BRFSS
Diabetes: Clinical Management		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults with diabetes in Federally Qualified Health Centers (FQHCs) who have had two HgA1c checks in the last 12 months 	Process	1305
<ul style="list-style-type: none"> Percent of patients ages 18 to 75 at Federally Qualified Health Centers (FQHCs) diagnosed with Type 1 or Type 2 diabetes with a most recent HgA1c of < 7.0 	Outcome	HRSA
<ul style="list-style-type: none"> Percent of patients ages 18 to 75 at Federally Qualified Health Centers (FQHCs) diagnosed with Type 1 or Type 2 diabetes with a most recent HgA1c of < 8.0 	Outcome	HRSA
<ul style="list-style-type: none"> Percent of patients ages 18 to 75 at Federally Qualified Health Centers (FQHCs) diagnosed with Type 1 or Type 2 diabetes with a most recent HgA1c of ≤ 7.0 	Outcome	HRSA
<ul style="list-style-type: none"> Percent of patients ages 18 to 75 at Federally Qualified Health Centers (FQHCs) diagnosed with Type 1 or Type 2 diabetes with a most recent HgA1c of > 9.0 (National Quality Forum – Measure 59 (NQF-59)) 	Outcome	1305, HRSA
<ul style="list-style-type: none"> Percent of adults with diabetes in Federally Qualified Health Centers (FQHCs) with diabetes with most recent low-density lipoprotein (LDL) < 100 (National Quality Forum – Measure 64 (NQF-64)) 	Outcome	1305
<ul style="list-style-type: none"> Percent of adults with diabetes in Federally Qualified Health Centers (FQHCs) with blood pressure below 140/90 (National Quality Forum – Measure 61 (NQF-61)) 	Process	1305
Tobacco: Outcome Measures		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults currently smoking 	Outcome	BRFSS
<ul style="list-style-type: none"> Percent of adults using smokeless tobacco products 	Outcome	BRFSS

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<ul style="list-style-type: none"> Percent of adults in Federally Qualified Health Centers (FQHCs) who are tobacco users 	Outcome	1305
<ul style="list-style-type: none"> Percent of adults with hypertension at Federally Qualified Health Centers (FQHCs) who are tobacco users 	Outcome	1305
<ul style="list-style-type: none"> Percent of adults with diabetes at Federally Qualified Health Centers (FQHCs) who are tobacco users 	Outcome	1305
Tobacco: Clinical Management: Lifestyle Screening, Counseling, and Intervention		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of patients at Federally Qualified Health Centers (FQHCs) queried about tobacco use one or more times in the measurement year or prior year 	Process	HRSA
<ul style="list-style-type: none"> Percent of tobacco users aged 18 and above at Federally Qualified Health Centers (FQHCs) who have received cessation advice or medication 	Process	HRSA
<ul style="list-style-type: none"> Percent of patients aged 18 years and above at Federally Qualified Health Centers (FQHCs) who were screened for tobacco use at least once during the two-year measurement period AND who received cessation counseling intervention, if identified as a tobacco user (National Quality Forum – Measure 28 (NQF-28)) 	Process	1305
<ul style="list-style-type: none"> Percent of patients aged 18 years and above with hypertension at Federally Qualified Health Centers (FQHCs) who were screened for tobacco use at least during the two-year measurement period AND who received cessation counseling intervention, if identified as a tobacco user (National Quality Forum – Measure 28 (NQF-28)) 	Process	1305
<ul style="list-style-type: none"> Percent of patients aged 18 years and above with diabetes at Federally Qualified Health Centers (FQHCs) who were screened for tobacco use at least during the two-year measurement period AND who received cessation counseling intervention, if identified as a tobacco user (National Quality Forum – Measure 28 (NQF-28)) 	Process	1305
Physical Activity: Outcome Measures		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults meeting physical activity recommendations 	Outcome	BRFSS

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Physical Activity: System Capabilities		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Number of worksites that adopt strategies to increase physical activity 	Process	1305
<ul style="list-style-type: none"> Number of Regional Public Health Networks (RPHNs) with community readiness assessments 	Process	1305
Obesity and Nutrition: Outcome Measures		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults with obesity 	Outcome	BRFSS
Obesity and Nutrition: Clinical Management: Screening		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of patients aged 18 and above at Federally Qualified Health Centers (FQHCs) with BMI charted AND follow-up plan documented, if patients are overweight or underweight 	Process	HRSA
<ul style="list-style-type: none"> Percent of patients aged 18 and above with diabetes at Federally Qualified Health Centers (FQHCs) with a documented BMI during current encounter or previous six months AND follow-up plan documented when BMI is outside normal parameters (National Quality Forum – Measure 421 (NQF-421)) 	Process	1305
Obesity and Nutrition: Clinical Management: Self Management		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Percent of adults who eat 5 or more servings of fruits/vegetables daily 	Process	BRFSS
Obesity and Nutrition: System Capabilities		
Indicators	Indicator Type	Source of Measure
<ul style="list-style-type: none"> Number of worksites that develop and/or adopt policies to implement food service guidelines/nutrition standards, including sodium (may include cafeterias, vending, snack bars, etc.) 	Process	1305
<ul style="list-style-type: none"> Number of employees who work in worksites that have developed and/or adopted policies to implement food service guidelines/nutrition standards, including sodium 	Process	1305
<ul style="list-style-type: none"> Number of community settings that develop and/or adopt policies to implement food service guidelines/nutrition standards, including sodium (may include cafeterias, vending, snack bars, etc.) 	Process	1305

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<ul style="list-style-type: none"> Number of persons who access community settings that have developed and/or adopted policies to implement food service guidelines/nutrition standards, including sodium 	Process	1305
<ul style="list-style-type: none"> Number of older adults having sodium reduced meals offered/delivered through nutrition agencies 	Process	1305
<ul style="list-style-type: none"> Number, out of ten, of older adult nutrition agencies that create an action plan to improve nutrition and sodium reduction efforts in menu plans 	Capacity	1305

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APPENDIX C: NH DIVISION OF PUBLIC HEALTH SERVICES: BACKBONE SUPPORT

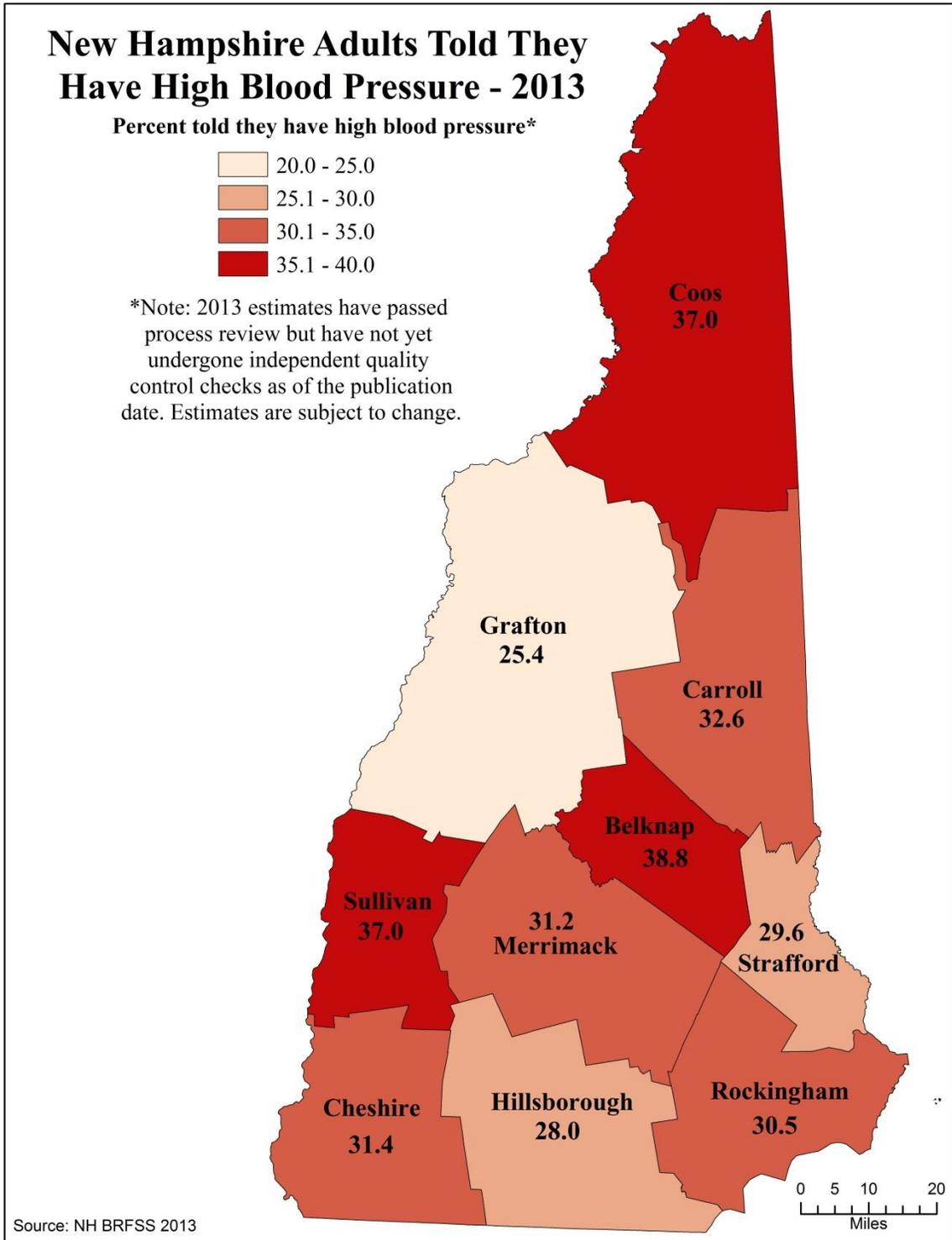
In July 2013, the New Hampshire Division of Public Health Services received a grant entitled, “State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health,” or FOA DP13-1305. The required strategies related to heart disease and stroke focus on controlling high blood pressure and improving quality of care. Specifically, states funded under this grant are required to:

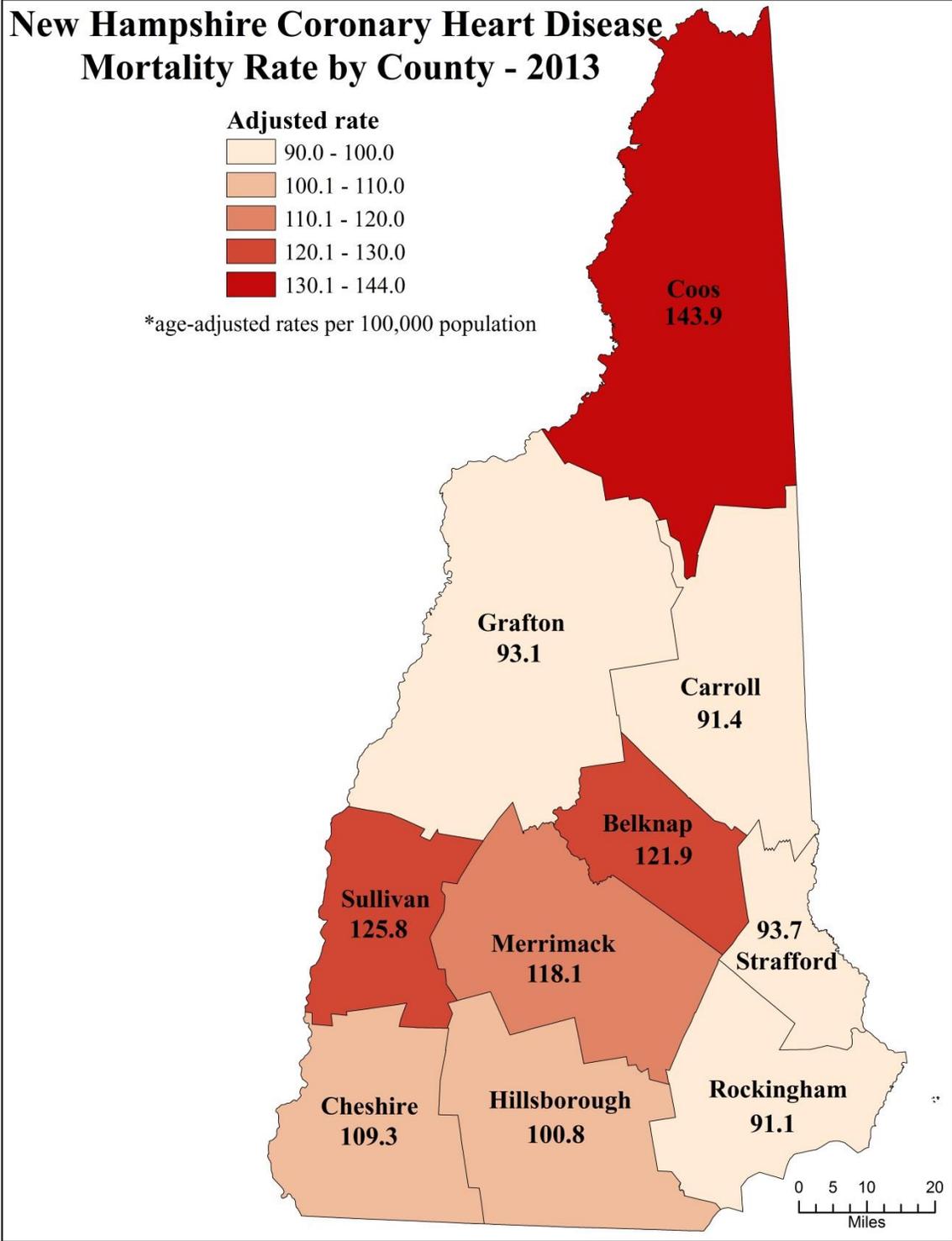
- Promote reporting of blood pressure clinical quality measures.
- Increase awareness of high blood pressure among patients through identification of undiagnosed and uncontrolled high blood pressure in the clinical setting.
- Promote self-monitoring of blood pressure tied with clinical support.
- Increase use of team-based care in health systems through engagement of non-physician team members (i.e., nurses, pharmacists, dietitians, social workers, patient navigators, and community health workers) for blood pressure control.
- Increase implementation of quality improvement processes in health systems (i.e., increase electronic health record adoption, use of health information technology to improve performance) for blood pressure control.

This grant provides the opportunity for programs to work together on strategies and activities that will result in measurable impacts on chronic diseases, including heart disease and stroke. The strategies and activities under this grant are aligned to the same four domains in this plan.

Prior to July 2013, the NH Heart Disease and Stroke Prevention Program’s priorities included activities aimed at the same six goals as this action plan (CDC, n.d.). In addition, over the last few years, the NH Heart Disease and Stroke Prevention Program began to focus on the Million Hearts initiative, promotion of ABCS (aspirin, blood pressure, cholesterol, and smoking cessation), and sodium reduction.

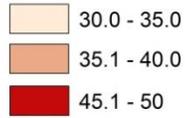
APPENDIX D: GEOGRAPHICAL DISTRIBUTION OF HEART DISEASE AND STROKE INDICATORS



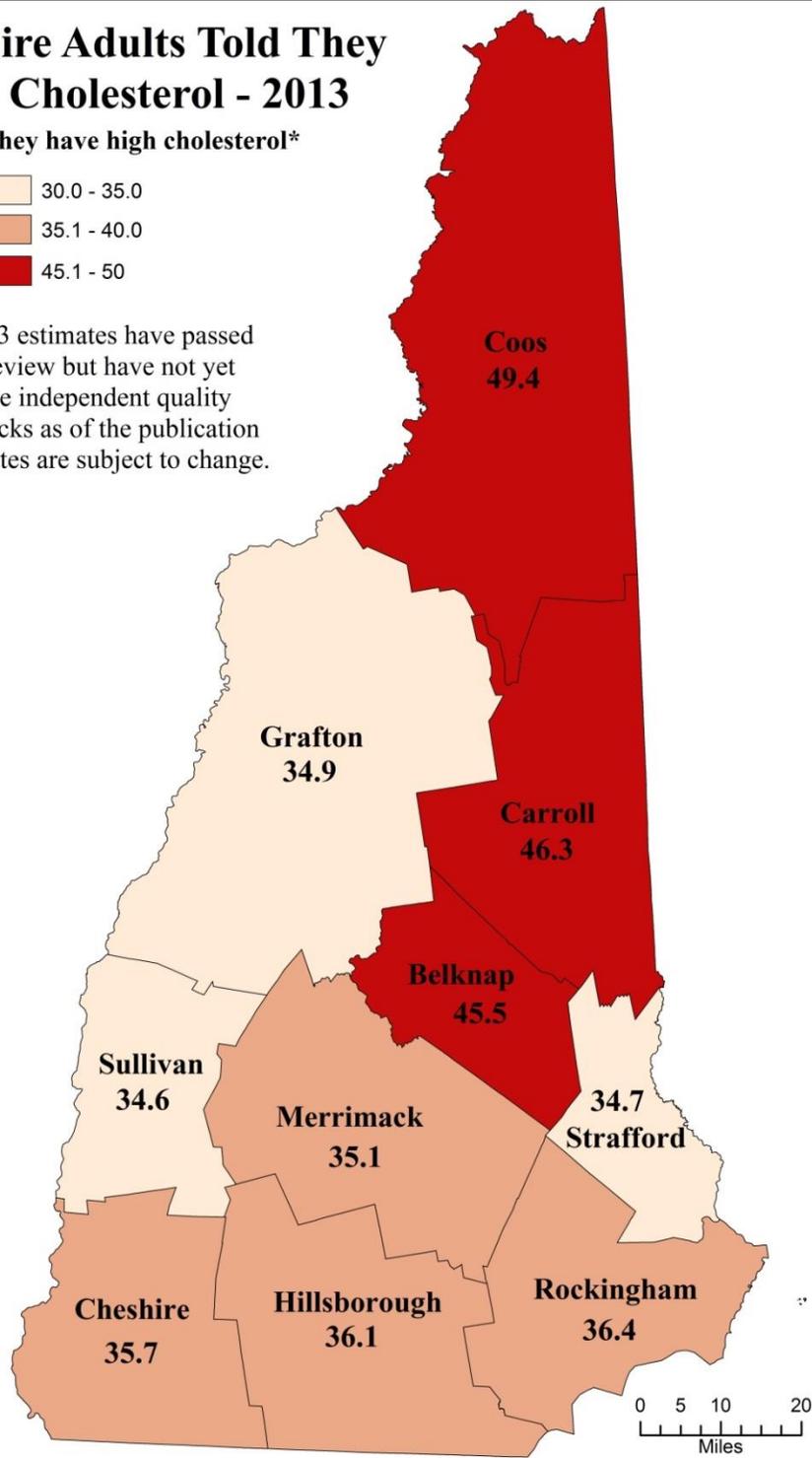


New Hampshire Adults Told They Have High Cholesterol - 2013

Percent told they have high cholesterol*



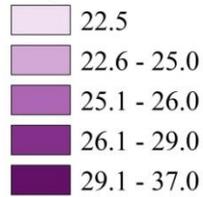
*Note: 2013 estimates have passed process review but have not yet undergone independent quality control checks as of the publication date. Estimates are subject to change.



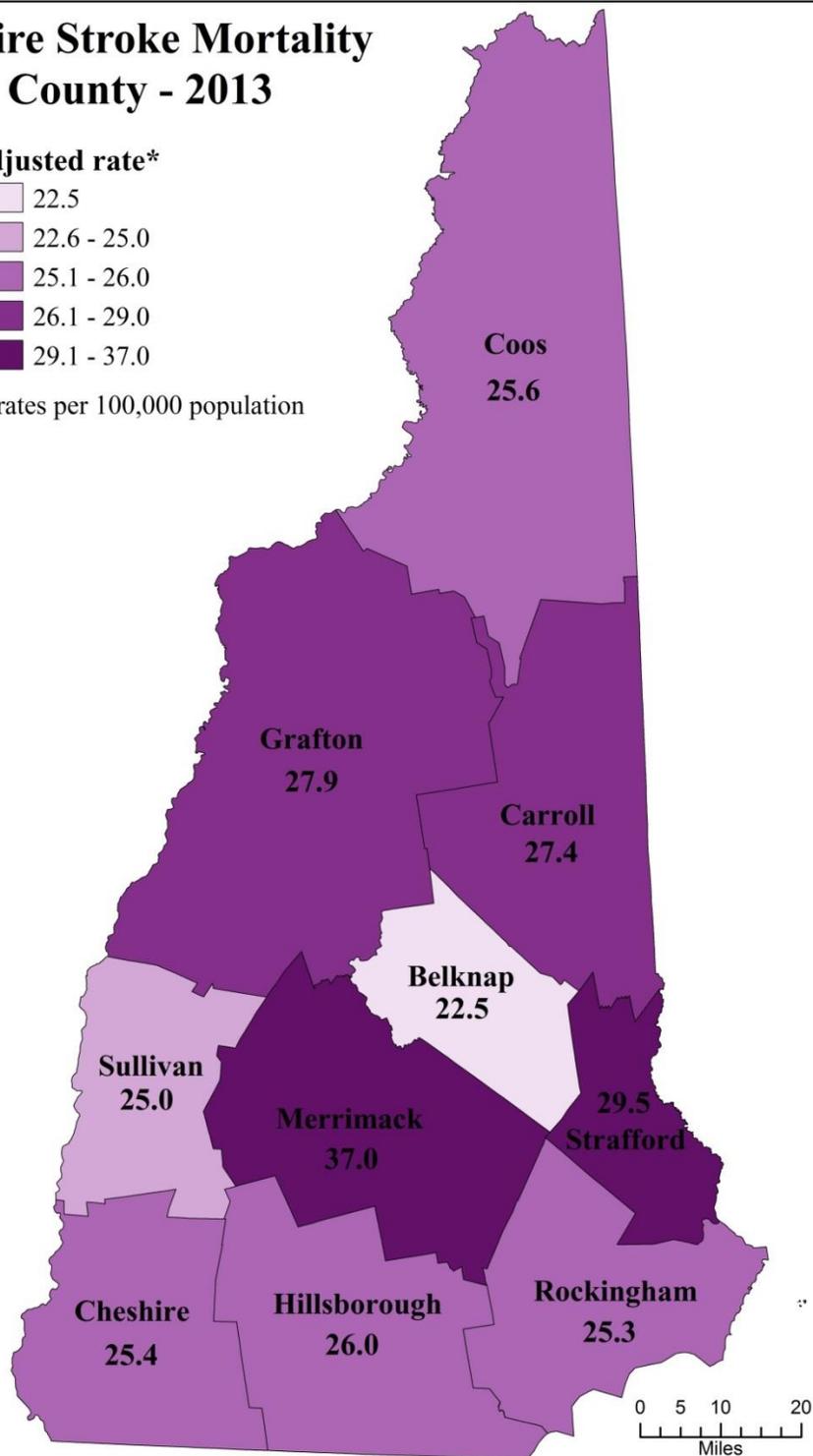
Source: NH BRFSS 2013

New Hampshire Stroke Mortality Rate by County - 2013

Adjusted rate*



*age-adjusted rates per 100,000 population



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This action plan is a compilation of strategies developed by a wide range of stakeholders and may include policy and advocacy positions that are beyond the role of NH DHHS. There are strategies included within this action plan that are dependent on future funding, which is outside of the control of NH DHHS and other stakeholders.

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