CAPITAL AREA

COMMUNITY HEALTH IMPROVEMENT PLAN

2015-2020

CAPITAL AREA
Public Health Network
an initiative of Granite United Way

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ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

"Public health promotes and protects the health of people and the communities where they live, learn, work and play."[1] While health care and medicine have traditionally focused on individuals, disease diagnosis, and treatment, public health focuses on populations, disease prevention, and health promotion. With an ever-changing landscape and a growing focus on population health within the health care system, there exists a unique opportunity to align efforts more closely to leverage the resources of each system.

The Capital Area Public Health Network (CAPHN), its Public Health Advisory Council (PHAC) and community stakeholders are pleased to present the first Capital Area Community Health Improvement Plan (CHIP). This plan reflects the input and recommendations from people who live and work in the Capital Area and have a vested interest in making this region the healthiest it can be for all residents.

Capital Area stakeholders have endorsed several overarching key frameworks and approaches to guide the implementation of this plan. This includes examining social determinants of health and concepts of health equity to understand the health issues facing our region. We have also modeled our approach on the County Health Rankings model of population health, which identifies how strongly social and economic factors contribute to health outcomes, including length of life and quality of life. In terms of community engagement and collaboration, we intend to follow the principles of Collective Impact, with a focus on collective action and shared outcomes.

This Capital Area CHIP contains the following eight Priority Areas:[2] Misuse of Drugs & Alcohol; Obesity; Access to Comprehensive Behavioral Health Services; Educational Achievement; Economic Wellbeing; Public Health Emergency Preparedness; Injury Prevention *(including Older Adult Falls & Suicide Prevention)*; and Lead Poisoning Prevention.

Within each of the of the Priority Areas are measurable goals, objectives and strategic approaches to guide CHIP implementation. Each strategic approach is based on a significant body of research that demonstrates the ability of the selected strategy to impact identified risk factors in our communities. These strategies have been shown to impact the objectives we have selected, which have been shown to impact our long-term goals. Additionally, the goals, objectives and strategic approaches within each priority area align closely with the State Health Improvement Plan (SHIP), Healthy People 2020, and other state and national plans and priorities.

We invite all community stakeholders to join our efforts to improve community health in the Capital Area. The complex issues we face in the Capital Area and across New Hampshire as they relate to public health can only be solved by working together. We must harness the power of collaboration and community to achieve the best possible outcomes for our residents.

[1] American Public Health Association (APHA). What is Public Health? Retrieved from https://www.apha.org/what-is-public-health on November 25, 2015.

[2] *Eight Priority Areas have been selected by the Capital Area Public Health Advisory Council and other community stakeholders for inclusion in the Capital Area CHIP. They are numbered for the sake of readability and reference, but do not reflect a particular order of importance.*

INTRODUCTION

Overview

There are numerous factors that influence the health of individuals and communities. While individual lifestyle choices and health behaviors play a role, a broad set of social and environmental factors directly impact our overall health and can also limit our ability to make healthy choices. These factors include the conditions in which we live, work, and play. Our health is directly linked to our education, income, and environment, in addition to our health behaviors and access to clinical care. The priority areas, goals, objectives, and strategic approaches outlined within the Capital Area Community Health Improvement Plan (CHIP) address multiple determinants to achieve the best possible population health outcomes for our residents.

The Capital Area CHIP outlines eight priority areas of focus, representing the most significant health issues currently facing our region. The proposed strategic approaches are based on significant evidence and have been shown to specifically impact the identified goals and objectives. The Capital Area CHIP aligns with existing assessments and plans, including the 2015 Capital Region Community Heath Needs Assessment and the 2013-2020 New Hampshire (NH) State Health Improvement Plan (SHIP). The Capital Area CHIP was created with significant input from community stakeholders and addresses the most prevalent community concerns, while ensuring a focus on best practices and "what works for health."[3]

The Capital Area CHIP provides a blueprint to be used for collective action by key stakeholders from a variety of community sectors, including business, education, health, safety, government, and community/family supports. These sectors see the impact of the public health concerns identified in this plan, but they can also play a valuable role in leading efforts to address the factors that influence health outcomes in the region. The community concerns identified within this plan are too complex for one organization or sector to solve on its own. The Capital Area CHIP provides a framework for multiple entities to systematically address shared priorities to achieve significant improvements in the health of our communities.

CAPITAL AREA PUBLIC HEALTH NETWORK

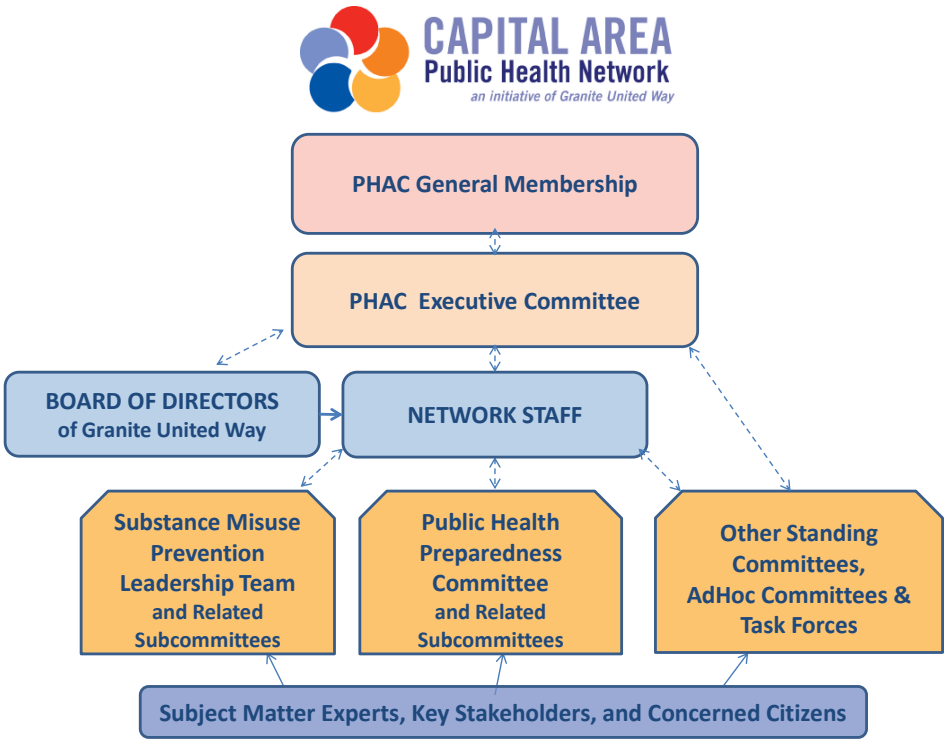
The Capital Area Public Health Network (CAPHN) is one of the 13 regional public health networks in NH. Each Regional Public Health Network (RPHN) includes a host agency that has a contract with the NH Department of Health and Human Services (NH DHHS) to convene, coordinate, and facilitate public health partners and initiatives in their region. Granite United Way serves as the host agency for CAPHN. Each host agency also provides leadership to a regional Public Health Advisory Council (PHAC) and services related to Public Health Emergency Preparedness and Substance Misuse Prevention. More

[3] Robert Wood Johnson Foundation. (2015). County Health Rankings. What Works for Health. Retrieved from: http://www.countyhealthrankings.org/roadmaps/what-works-for-health on September 15, 2015.

information about each of NH's Public Health Networks can be found at http://nhphn.org/who-we-are/public-health-networks/.

The mission of CAPHN is to promote, protect, and improve the health and well-being of communities within the Capital Area of NH through the proactive, coordinated, and comprehensive delivery of essential public health services. The organizational structure of CAPHN, with overall oversight by Granite United Way as host agency and fiscal sponsor, includes the PHAC General Membership, a PHAC Executive Committee, a Substance Misuse Prevention (SMP) Leadership Team/Subcommittee, a Public Health Preparedness Leadership Team/Subcommittee, and other ad-hoc or standing committees as needed.

Figure 1. CAPHN Organizational Chart, 2015.



The PHAC is comprised of leaders from a wide range of sectors and communities in the Capital Area.
The purpose of the Public Health Advisory Council is to perform the following functions:

1. Identify and prioritize regional community and public health needs.
2. Encourage the development and coordination of appropriate community and public health services and programs.
3. Encourage, promote, and support community engagement on public health issues.
4. Advise the Capital Area Public Health Network members on all major policy matters concerning the nature, scope, and extent of community and public health concerns and responses.

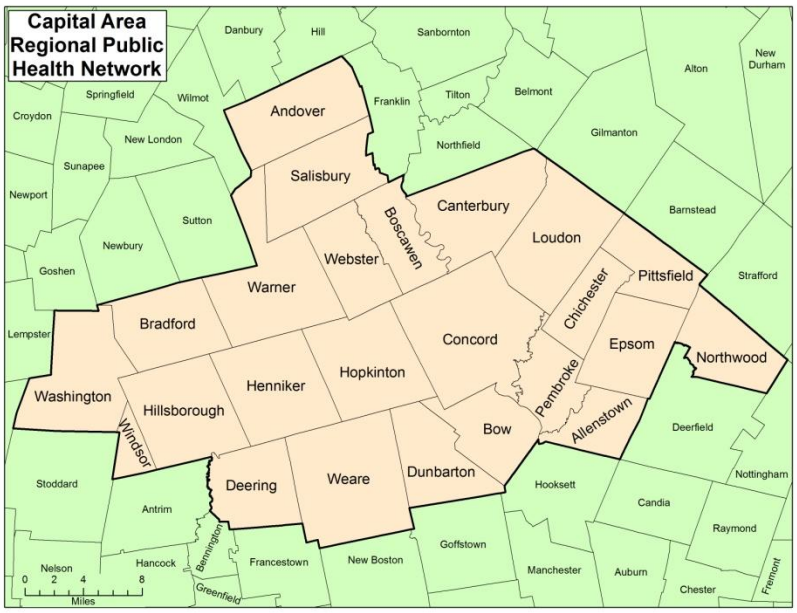
The PHAC has provided oversight and each CAPHN committee has provided input into the development of this plan.

Community Profile

GEOGRAPHY & POPULATION

The Capital Area Public Health Region includes the following 24 municipalities: Allenstown, Andover, Boscawen, Bow, Bradford, Canterbury, Chichester, Concord, Deering, Dunbarton, Epsom, Henniker, Hillsboro, Hopkinton, Loudon, Northwood, Pembroke, Pittsfield, Salisbury, Warner, Washington, Webster, Weare, and Windsor.

Figure 2. Capital Area Public Health Region, 2015.



The Capital Area is home to 130,067 residents[4] and spans 880.99 square miles[5]. Therefore, population density of the Capital Area Public Health Region (148 people per square mile) is nearly identical to the state overall (147 people per square mile).[6] The Capital Area is comprised primarily of Merrimack County municipalities (1 city, 17 towns), but also includes four towns from Hillsborough County, and one town each from Rockingham County and Sullivan County. The Capital Area Public Health region contains the same geographic boundaries as the Concord Hospital Service Area, with the exception of Barnstead, which is not part of the public health region.

As in most of the United States, New Hampshire's population has a rapidly aging population. New England states have been most impacted by this trend, with Maine, Vermont and New Hampshire home to the nation's highest median ages (43.9, 42.4, and 42.3, respectively). These states have also seen the most rapid increases in aging rates in the country since 1990.[7] In the Capital Area, the median age is 43 and the population over age 65 (13.14%) is similar to the state as a whole (14.18%).[8] From 2000-2010, the Capital Area has also seen a 7.5% increase in the percent of population over the age of 85 to a current rate of 1.52%.[9] During the same timeframe, the Capital Area saw a -5.8% decrease in the school age population. These changing demographics will continue to impact our health care, education, and economic systems in various ways with an obvious impact on the overall health of our population.

[4] US Census Bureau, 2010.
[5] NH GRANIT System, NH Office of Energy and Planning, 2013.
[6] US Census Bureau, 2010.
[7] US Census Bureau, 2010.
[8] US Census Bureau, American Community Survey, 2012.
[9] New Hampshire Center for Public Policy Studies, 2015.

Other selected demographics for the region are included in *Table 1* below.

Table 1. Selected Demographics in Merrimack County and NH. Source: US Census Bureau, NH DHHS.

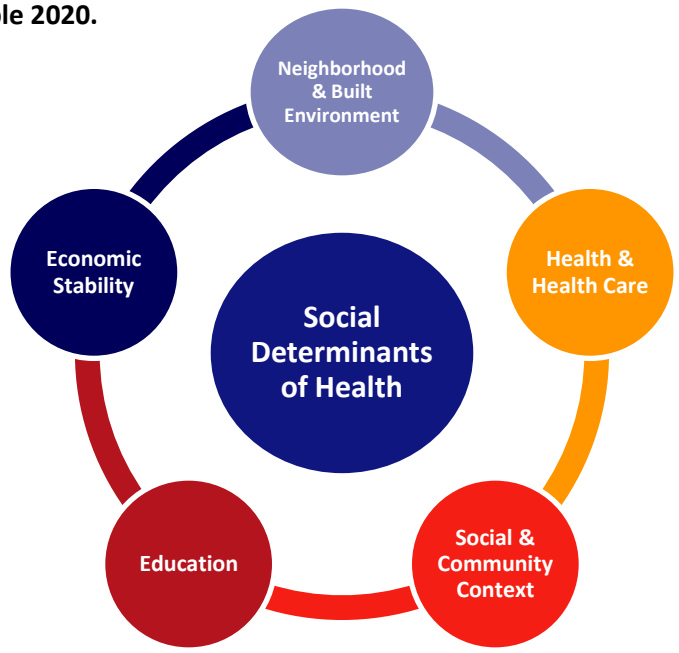
	Merrimack County	NH
Race & Ethnicity (2014)		
White alone (a)	95.0%	94.0%
Black or African American alone (a)	1.4%	1.5%
American Indian and Alaskan Native alone (a)	0.3%	0.3%
Asian alone (a)	1.9%	2.5%
Native Hawaiian and Other Pacific Islander alone (a)	Z	Z
Two or More Races	1.4%	1.6%
Hispanic or Latino (b)	1.9%	3.3%
White alone, not Hispanic or Latino	93.4%	91.3%
Foreign Born & Language (2009-2013)		
Foreign born persons	3.9%	5.4%
Language other than English spoken at home, age 5+	5.2%	8.0%
Refugee Resettlement (2008-2014)		
Number of refugees resettled	1,348 (Capital Area)	3,317

(a): Includes persons reporting only one race.
(b): Hispanics may be of any race, so also are included in applicable race categories.
Z: Value greater than zero but less than half unit of measure shown

Overall Health

Overall, residents in this region indicate a high level of general health, accoding to the recent 2015 Capital Region Community Health Needs Assessment. There has been a decrease in the percentage of adults reporting "less than good overall health" from 12.7% in 2012 to only 7.0% in 2015.[10] The Capital Area fares quite well when compared to the state and nation concerning demographic characteristics that impact health outcomes. The Capital Area generally rates positively on most indicators related to health, economics, and education when compared to state averages.

Figure 3. Social Determinants of Health Model. Source: Healthy People 2020.



Social Determinants of Health

We know that our health and well-being is influenced by our behaviors, such as how well we eat and how physically active we are. We also understand the role of quality clinical care in impacting length of life and quality of life. However, we have clear and significant

[10] Capital Region Community Health Needs Assessment, Telephone Survey, 2012, 2015.

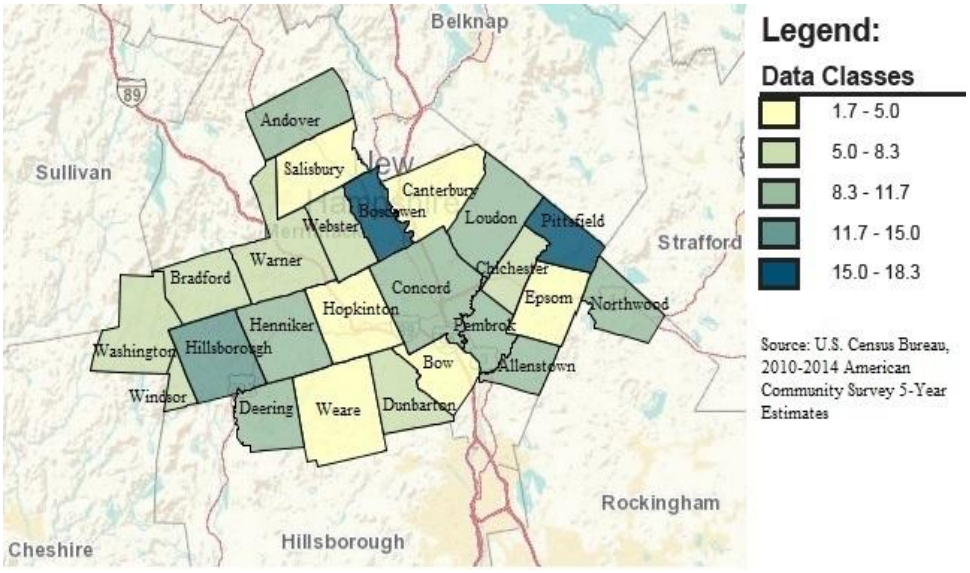
evidence that our social and physical environments play a prominent role in impacting these health outcomes as well.[11] The levels of education and income of an individual are probably as important as, if not more than, medical care and many other factors in improving health.

"Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."[12] The data below outline the status of various social determinants indicators in the Capital Area. Many of these data point to the overall positive health outcomes we see in our region, especially when compared to state and national figures. However, there are several communites within our region that face significant socioeconomic barriers to good health. Many residents face unequal access or limited access to high-quality jobs, education and safe environments based on the community or neighborhood in which they live. These health inequities can lead to higher rates of injury, disease, and mortality. Additional information concerning social determinants of health and health equity can be found elsewhere in this report, including a socioeconomic ranking of our communities, found under Priority 5: Economic Wellbeing.

Economic Stability

The median household income for the Capital Area ($69,398) is slightly higher than NH ($66,283).[13] The median household income in the Capital Area ranges from a low of $52,592 in Concord to a high of $97,028 in Bow.[14] The percent of individuals at or below the poverty level ranges from only 1.7% in Weare to 18.3% in Pittsfield.

Figure 4. Percent of Individuals at or Below the Poverty Level by Capital Area Municipality, 2010-2014. Source: American Community Survey, 5-Year Estimates.



The map to the left provides a glimpse at the Capital Area communities home to some of our most vulnerable residents. The overall poverty rate in Merrimack County (9.5%) is slightly higher than NH (8.7%) and lower than the US (14.8%) and the unemployment rate

[11] Booske, Athens, Kindig, et al. (2010). Different perspectives for assigning weights to determinants of health. County Health Rankings Working Paper. Retrieved from http://www.countyhealthrankings.org/sites/default/files/differentPerspectivesForAssigningWeightsToDeterminantsOfHealth.pdf on September 30, 2015.

[12] Healthy People 2020. Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health on September 30, 2015.

[13] US Census Bureau, 2010.

[14] US Census Bureau, 2010.

in the Capital Area (3.7%) is lower than both NH (4.1%) and the US (6.6%).[15] Despite these factors, there is still cause for concern regarding the economic disparity present within the region and even within some of our more affluent communities.

Other indicators worth noting that impact economic stability include transportation, food security and housing stability. Again, there are some key geographic variations within the Capital Area for these indicators, most specifically related to the more rural communities with limited access to public transportation and low grocery store rates per 100,000 population. However, there are also perceived improvements in some of these areas. In 2012, according to the telephone survey of the Capital Region Community Needs Assessment, 3.7% of residents identified transportation as a barrier in accessing healthcare services, compared to no mention of it in the most recent telephone survey in 2015. According to housing data provided by the NH Center for Public Policy Studies, among renters in the Capital Area, 17.0% are severely cost burdened[16], 21.5% are cost burdened[17], and 52.3% have no housing problems. Among owners in the Capital Area, 12.9% are severely cost burdened, 22.5% are cost burdened, and 63.6% have no housing problems. Additional data regarding economic well-being can be found within Priority Area #5 of this report.

Education

According to the NH Department of Education (2014), only 70% of Merrimack County 4th graders score at or above proficiency in math compared to 72% statewide and only 73% score at or above proficiency in reading compared to 75% statewide. Merrimack County 8th graders fare slightly better than the NH state average, with 68% scoring at or above proficiency in math compared to 64% statewide and 82% scoring at or above proficiency in reading compared to 77% statewide. Early proficiency in math and reading is important because it is a predictor of future educational success.

The high school graduation rate for Merrimack County is 84%, compared to 86% statewide.[18] However, out of those who completed high school in the 2013-2014 school year, only 44.2% have entered four year colleges and universities, compared to 48.4% in NH overall. Research shows that for each additional year of schooling, annual income increases by about 11%.[19] We also know that significant geographic and socioeconomic disparities exist in our region related to educational achievement, with a broad range of cumulative, 4 yr dropout rates in the Capital Area ranging from 0% to 11.8% according to the NH Department of Education.

Social & Community Context

Another set of indicators related to social determinants of health include social associations, social capital, and social isolation. According to the County Health Rankings, "Poor family support, minimal contact with others, and limited involvement in community life are associated with increased morbidity

[15] American Community Survey 5-Year Estimates, 2010-2014.
[16] Severely cost burdened is defined as 50% or more of income spent on housing costs.
[17] Cost burdened is defined as 30-49.9% of income spent on housing costs.
[18] NH Department of Education, 2011-2012.
[19] Egerter S, Braveman P, Sadegh-Nobari T, Grossman-Kahn R, Dekker M. (2011). Education and health. Princeton: Robert Wood Johnson Foundation (RWJF). Exploring the Social Determinants of Health Issue Brief No. 5.

and early mortality."[20] In Merrimack County, the number of "social associations" per 10,000 population is higher (14.9) than NH overall (10.3).[21]

Health & Health Care

According to data collected through the telephone survey of the 2015 Capital Region Health Needs Assessment, the vast majority of residents have access to routine medical and dental care. A large majority of adult respondents report visiting a doctor (78%) or dentist (76%) for a routine check-up within the last year. Adults respondents with children report even greater access for their children to routine medical (85%) and dental (89%) care within the last year. According to the County Health Rankings (2015) the ratio of population to primary care physicians in Merrimack County is 839:1, compared to 1,080:1 in NH overall. The ratio of population to mental health providers in Merrimack County is 364:1, compared to 412:1 in NH overall. The ratio of population to dentists in Merrimack County is 1,372:1, compared to 1,484:1 in NH overall. [22]

Neighborhood & Built Environment

In public health, we know that "place matters," including the neighborhood in which you live, your level of access to safe, affordable housing, safe water and healthy foods. Disparities exist based on race, ethnicity, and income, among other factors. There are communities and neighborhoods within the Capital Area at higher risk for negative health outcomes based on the particular conditions in the environment and surroundings. The Social Vulnerability Index (SVI) is a tool that can be used to help identify geographic locations with higher vulnerability to environmental and public health hazards. Other data related to neighborhoods and built environment can be found within this plan, particularly within Priority Area #5.

[18] Robert Wood Johnson Foundation, County Health Rankings & Roadmaps. Retrieved from http://www.countyhealthrankings.org/app/new-hampshire/2015/measure/factors/140/description on November 25, 2015.
[21] County Business Patterns, 2015. Retrieved from www.countyhealthrankings.org on November 25, 2015.
[22] Area Health Resource File, 2015. Retrieved from www.countyhealthrankings.org on November 25, 2015.

CHIP DEVELOPMENT

Overview

During 2014 and 2015, the Capital Area Public Health Advisory Council (PHAC) engaged community partners in a community health improvement planning process. The purpose of this process was to engage community partners to:

- Identify and evaluate health issues
- Provide information to community members
- Help plan effective interventions
- Provide a baseline to monitor changes and trends
- Build partnerships and coalitions
- Identify emerging issues
- Prioritize regional public health priorities
- Develop a Community Health Improvement Plan

Since 2013, when the PHAC was originally developed, stakeholders in the Capital Area have had several opportunities to review data sets and prioritize areas of concern. Over 100 individuals and organizations from numerous sectors and communities within the Capital Area have been engaged throughout this process. The collective input from these stakeholders provides the basis for this Community Health Improvement Plan (CHIP).

Planning Process

The Capital Area Public Health Advisory Council (PHAC) endorsed a planning process in 2014 to embark on the development of the first Community Health Improvement Plan (CHIP) for the Capital Area. A CHIP Subcommittee was formed in January 2014, which consisted of a select group of PHAC Executive Committee members, as well as representatives from Granite United Way's Community Impact Committee (CIC). The planning process for CHIP development was led by CAPHN staff, with technical assistance provided by the Community Health Institute (CHI) and the NH Center for Public Policy Studies.

The planning steps followed recommendations made by NH DHHS and CHI, using templates and guidelines endorsed by organizations such as the National Association of County & City Health Officials (NACCHO), Healthy People 2020, and the Institute of Medicine. The approach that was followed most closely was NACCHO's Mobilizing for Action through Planning and Partnerships (MAPP) framework, which includes the following steps: organizing, visioning, assessments, strategic

issues, goals/strategies, and the action cycle. The guidelines provided by the primary funders of the CHIP development process, NH DHHS, included the following criteria. The CHIP should:

- Be based on data that assessed key public health issues;
- Be the result of collaborative effort among key regional public health partners;
- Set priorities for action by regional partners;
- Include priorities related to at least 5 of the priorities identified in the State Health Improvement Plan (SHIP) (including Public Health Emergency Preparedness & Misuse of Alcohol & Drugs);
- Set region-specific objectives based on statewide objectives.

Early in the planning process, members of the PHAC and the CHIP subcommittee determined the need to address social determinants of health as a priority for the region. This decision was based on the significant body of research that shows the broad influence that socioeconomic factors, such as income and education, can have on health outcomes. By examining population health models, such as the County Health Rankings model and Frieden's Health Impact Pyramid, the CHIP subcommittee was able to deepen its understanding of the importance of addressing not only traditional health factors, such as health behaviors and clinical care, but the actual conditions in which we live, such as the safety of our neighborhoods, our access to social and economic opportunities, or the quality of our schooling. The approaches adopted by the PHAC and CHIP Subcommittee are explained in greater detail in the CHIP Framework section of this document.

After adopting the overall framework for CHIP development, the Subcommittee enlisted the expertise of the NH Center for Public Policy Studies. The Center's director compiled data based on the health factor categories identified within the County Health Rankings model. This data was presented to the CHIP Subcommittee, PHAC, and other key stakeholders in June 2015. During the weeks that followed, the CHIP Subcommittee and the PHAC Executive Committee endorsed eight priority areas for inclusion in the CHIP. The priority areas selected were ones that repeatedly rose to the surface in the region in terms of importance, community readiness, and potential for impact. They reflect the priorities of key stakeholders who are involved in the work of the Capital Area Public Health Network, but also align with the real concerns expressed by Capital Area residents as outlined in the Capital Region Community Health Needs Assessment of 2015.

Needs Assessments & Data

The Capital Area Public Health Network and the newly forming PHAC began reviewing data sets in August of 2013, with a presentation to new members on the State Health Improvement Plan (SHIP) and the 2013 County Health Rankings results for Merrimack County. While the Capital Area and Merrimack County regions do not align completely, they are closely aligned, with the Capital Area comprised of 18 municipalities from Merrimack County, four from Hillsborough County, and one each from Rockingham and Sullivan Counties. The Capital Area includes most (70%), but not all Merrimack County cities and

towns. This information is important, as some data sets do not reflect the exact geography of the region because of the manner in which it is reported and readily available. As the NH Health Wisdom system and other data applications increasingly offer ways to interpret data by public health region, we will be better able to assess the particular needs of the Capital Area.

Additional data presentations throughout 2014 and 2015 included summary presentations using the following data sources and reports:

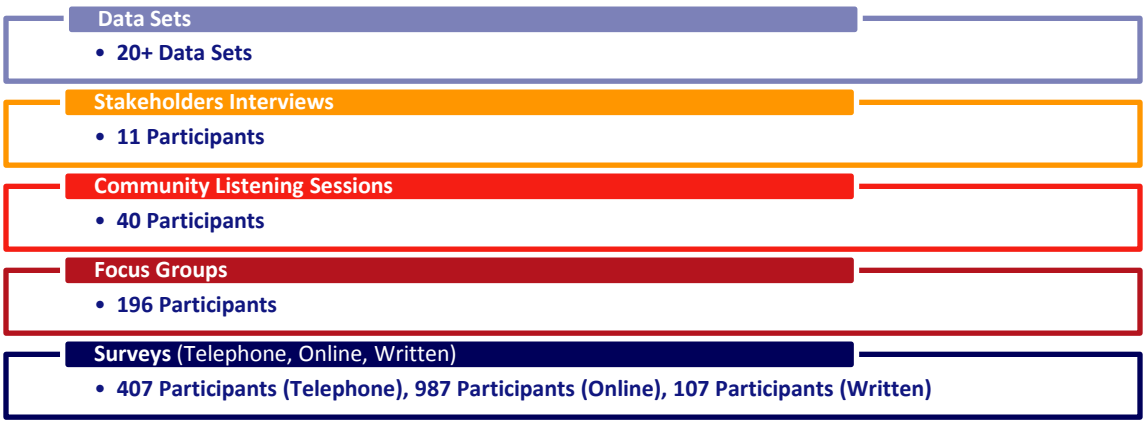
- American Community Survey 5-Year Estimates, 2010-2014
- Behavioral Risk Factor Surveillance System (BRFSS), 2012
- Capital Area Region Community Data Profile, 2011
- Capital Area Regional Network Strategic Plan for Prevention, 2012
- Capital Region Community Health Needs Assessment, 2012
- County Health Rankings, 2014
- National Survey on Drug Use and Health, 2012-2013
- NH Health Wisdom
- NH HealthWRQS
- Snapshot of NH's Public Health Regions, 2011
- State Health Improvement Plan (SHIP), 2013
- US Census Bureau, 2010-2014
- Youth Risk Behavior Surveys (YRBS), 2007-2013

Data review culminated with the presentation by the NH Center for Public Policy Studies in June 2015 to stakeholders representing numerous community agencies and sectors in the Capital Area. Data was presented in the following categories to assist community partners in identifying priorities: Health Behaviors, Clinical Care, Social & Economic Factors, and Physical Environment.

2015 Capital Region Community Health Needs Assessment

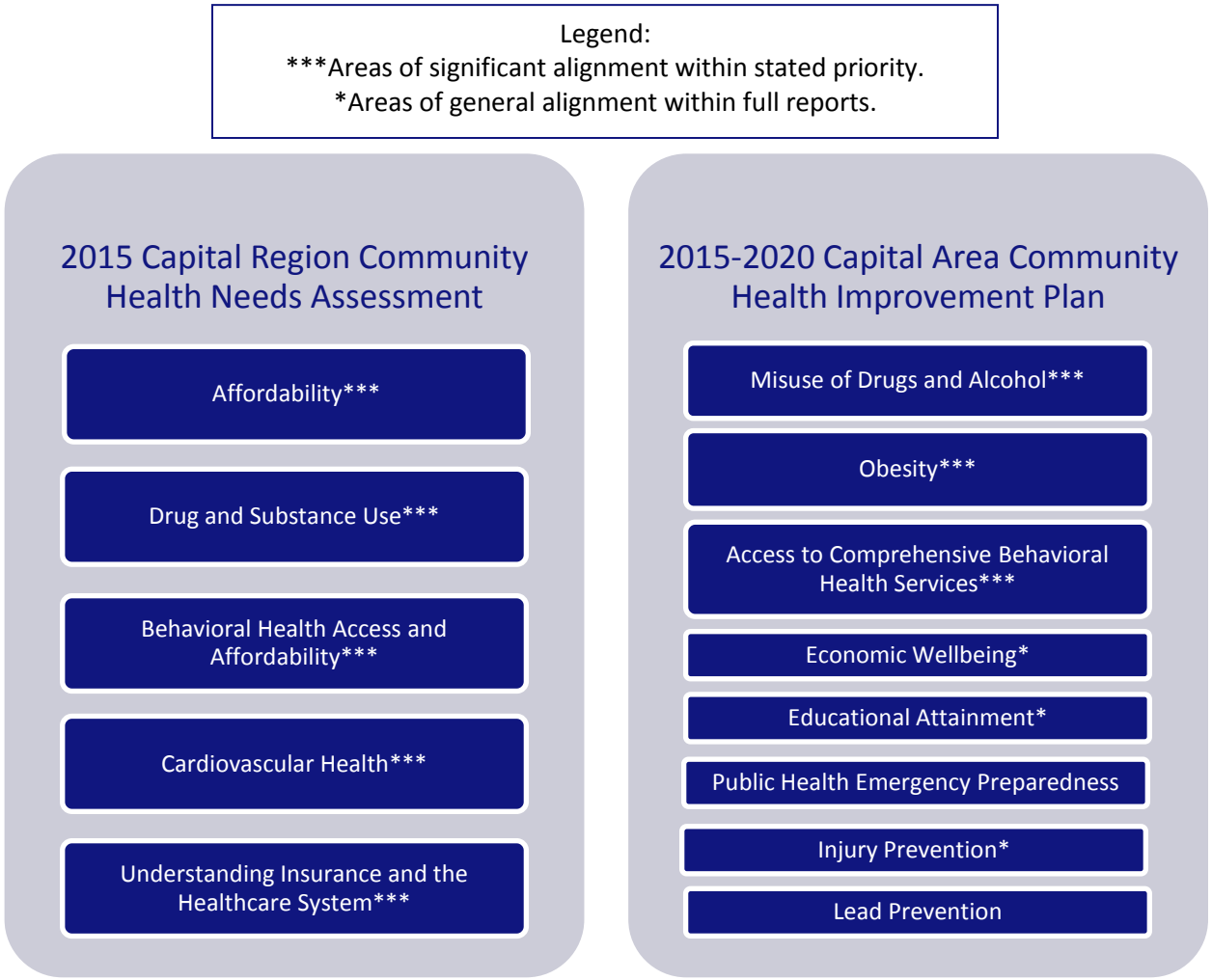
In 2015, led by Concord Hospital and its parent organization, Capital Region HealthCare, key representatives from a variety of agencies and organizations in the Capital Area came together to form the Capital Region Health Needs Assessment Workgroup. The Workgroup included representation from Granite United Way, the Capital Area Public Health Network, and numerous members of the Capital Area PHAC, as well as significant involvement from other local agencies. The Workgroup adopted the Healthy People 2020 approach, using the social determinants of health as a framework for its assessment. The data collection and methodologies employed, including both quantitative and qualitative studies, including the following:

Figure 5. Capital Region Community Health Needs Assessment Methodologies, 2015.



The top needs for each methodology were identified and can be found in the full 2015 Capital Region Community Health Needs Assessment, also found in Appendix B. Particular areas of alignment between the 2015 Needs Assessment and the Capital Area Community Health Improvement Plan are identified below.

Figure 6. Alignment between 2015 Capital Region Community Health Needs Assessment and 2015-2020 Capital Area Community Health Improvement Plan (CHIP).



CHIP FRAMEWORK

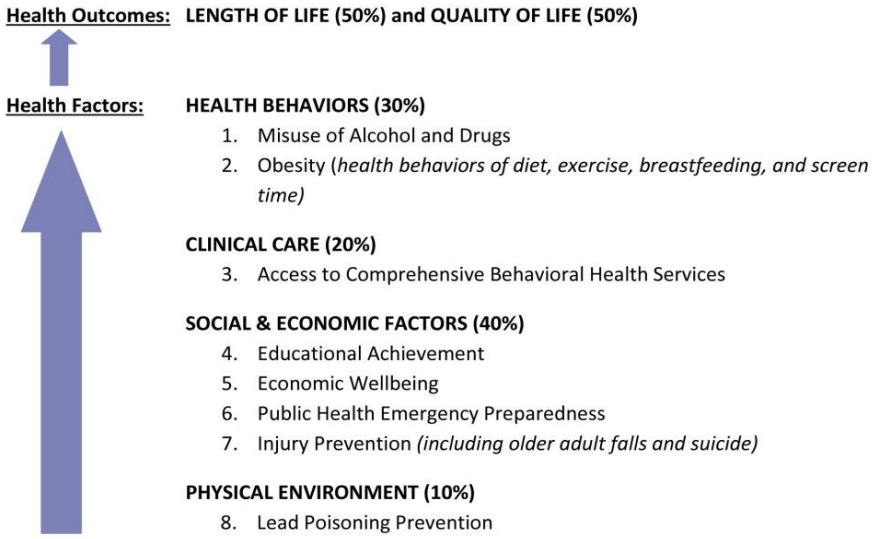
Key Approaches

The Capital Area Public Health Network (CAPHN) has adopted theoretical frameworks and models for understanding health issues, developing an overarching approach to collaboration and the implementation of effective strategies to address the priority areas. Below, we describe how we have integrated several models into the development of this Capital Area CHIP.

UNDERSTANDING HEALTH ISSUES (PRIORITIZATION)

Health outcomes, such as length and quality of life, are impacted by many factors. According to the Robert Wood Johnson Foundation's County Health Rankings model of population health, health behaviors contribute 30%, clinical care 20%, social and economic factors 40% and the physical environment 10% to overall health outcomes as indicated by length and quality of life.[23] The understanding and adoption of this model has directed CAPHN to look not only at the region's most pressing health behaviors (alcohol & drug use and diet & exercise) and clinical care needs (access to comprehensive behavioral health services) when determining regional priorities, but also to the social and economic factors that influence overall health outcomes such as educational achievement, economic wellbeing, and community safety. The image below demonstrates where the region's eight priority areas fall within each of the categories of health factors.[24] CAPHN considered the weight of each category and the interplay between health factors in the decision to prioritize these eight areas.

Figure 7. County Health Rankings Model of Population Health



[23] County Health Rankings & Roadmaps. Retrieved from: http://www.countyhealthrankings.org/our-approach
[24] Image modified from County Health Rankings & Roadmaps. Model of Population Health. Retrieved from: http://www.countyhealthrankings.org/our-approach

While traditional models of health improvement focus attention on clinical health services, according to the County Health Rankings model, only 20% of health outcomes are actually impacted by clinical care factors. We know that public health involves much more than health care. Significant research exists that demonstrates the impact of social and economic factors on one's health.[25]

Another consideration in the focus of this plan that aligns with a focus on social determinants of health is health equity. "Health equity is achieved when every person has the opportunity to 'attain his or her full health potential' and no one is 'disadvantaged from achieving this potential because of social position or other socially determined circumstances.' Health inequities are created when barriers prevent people from accessing those opportunities and health disparities are types of unfair health differences closely linked with social, economic or environmental disadvantages that adversely affect groups of people.[26] As identified throughout this plan, there are inequities and disparities present within the Capital Area that negatively impact the health outcomes of our populations. To achieve health equity, we must first address the social determinants of health, the conditions in which people "live, work and play."

APPROACH TO COLLABORATION (COMMUNITY ENGAGEMENT)

Coalition building, with the goal of reaching integrated levels of collaboration and building a community's capacity to address public health issues in a given geographical area is a cornerstone of community organizing. Although many of the health priorities identified in this plan are already being addressed to come degree by organizations in the Capital Area, the goal of CAPHN and the PHAC is to facilitate a deep and focused level of collaboration in which partner organizations align activities and contribute collectively towards the goals and objectives outlined for each priority area. CAPHN, through the PHAC, plans to apply the tenets of the Collective Impact approach to solving complex social issues. A true Collective Impact model includes a shared agenda and measures, as well as mutually reinforcing activities.

There are many regional assets in the Capital Area that must be leveraged in order to strengthen the capacity of our region to address the goals and objectives within this plan. It is essential that community stakeholders in the region from a variety of community sectors and organizations work collectively to address the priority health needs of the region. We will continue to identify these assets and resources as we form workgroups or, preferably, align with existing workgroups to address our priorities. We intend to build upon existing capacity and infrastructure whenever possible. There are numerous organizations and agencies already working to address the health needs of the community. This CHIP offers a unique opportunity to us all to align partnerships, funding streams, and evaluation resources for collective action.

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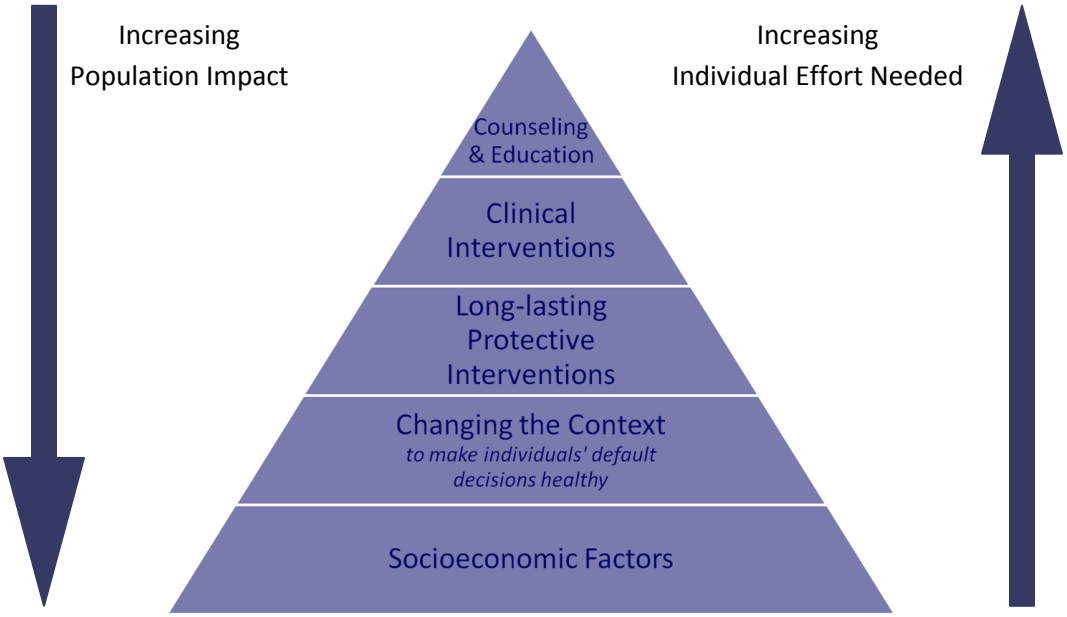
[25] Booske, Athens, Kindig, et al. (2010). Different perspectives for assigning weights to determinants of health. County Health Rankings Working Paper. Retrieved from http://www.countyhealthrankings.org/sites/default/files/differentPerspectivesForAssigningWeightsToDeterminantsOfHealth.pdf on September 30, 2015.

[26] Centers for Disease Control and Prevention. Promoting Health Equity: A Resource to Help Communities Address Social Determinants of Health. Retrieved from: http://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/tools/pdf/sdoh-wdf on November 15, 2015.

EFFECTIVE STRATEGIES TO ADDRESS THE PRIORITY AREAS (STRATEGIC APPROACH)

The strategic approach to address the identified priorities will follow two primary models: the Public Health Impact Model and Health in all Policies. The Health Impact Pyramid is a 5-tier pyramid that best describes the impact of different types of public health interventions and provides a framework to improve health. At the base of this pyramid, indicating interventions with the greatest potential impact, are efforts to address socioeconomic determinants of health. In ascending order are interventions that change the context to make individuals' default decisions healthy, clinical interventions that require limited contact but confer long-term protection, ongoing direct clinical care, and health education and counseling. Interventions focusing on lower levels of the pyramid tend to be more effective because they reach broader segments of society and require less individual effort. Implementing interventions at each of the levels can achieve the maximum possible sustained public health benefit."[27]

Figure 8. Health Impact Pyramid, *Factors that Affect Health.*



"Health in All Policies (HiAP) is an approach to public policies across sectors that systematically takes into account the health and health systems implications of decisions, seeks synergies, and avoids harmful health impacts, in order to improve population health and health equity. It emphasizes the consequences of public policies on health determinants, and aims to improve the accountability of policy-makers for health impacts at all levels of policy-making" (WHO, 2013, p. 2). An HiAP approach can be used to address highly complex health challenges in our communities by impacting the ways that decisions are made to drive systems-level change to improve health outcomes.

[27] Frieden T.R. American Journal of Public Health. A framework for public health action: the health impact pyramid. 2010 Apr; 100(4):590-5. doi: 10.2105/AJPH.2009.185652. Epub 2010 Feb 18. Retrieved from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/

The strategic approaches outlined in the next section within each Priority Area represent the most current best-practice approaches in the field of public health and include the following broad categories: systems change, advocacy, policy & planning; awareness & education; direct evidence based/research informed programming; and environmental change. Each strategic approach is based on a significant body of research that demonstrates the ability of the selected strategy to impact identified risk factors in our communities. These strategies have been shown to impact the objectives we have selected, which have been shown to impact our long-term goals. Strategies were researched and selected following a significant review of relevant literature, evidence-based registries, and best practice platforms such as *What Works for Health*, a tool within the County Health Rankings and Roadmaps website. Additionally, the goals, objectives and strategic approaches within each priority area align closely with the State Health Improvement Plan (SHIP), Healthy People 2020, and other state and national plans and priorities.

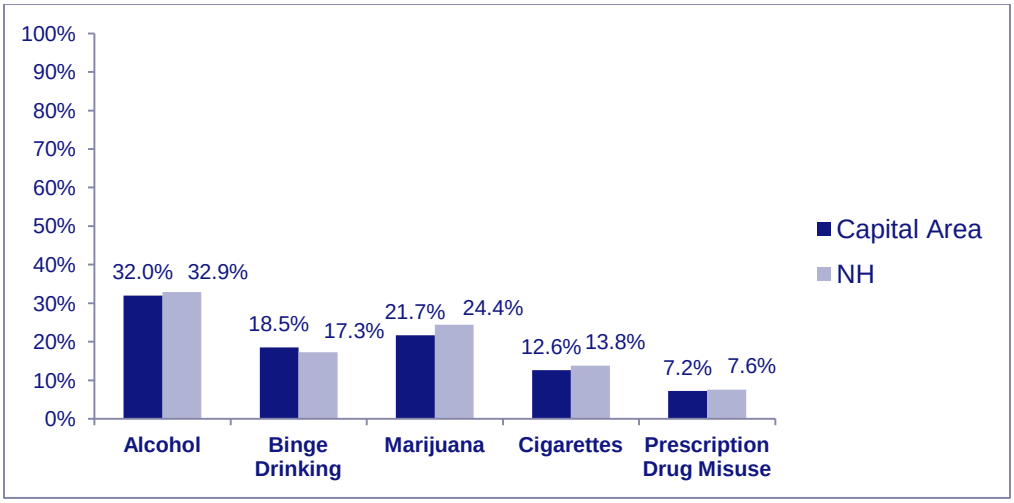
**Please note: The following section outlines the eight Priority Areas selected by the Capital Area Public Health Advisory Council and other community stakeholders for inclusion in the Capital Area CHIP. They are numbered for the sake of readability and reference, but do not reflect a particular order of importance.*

Priority Area 1: Misuse of Alcohol and Drugs *

BACKGROUND

The misuse of alcohol and drugs is one of the most devastating public health issues faced by New Hampshire (NH) communities today. In fact, according to data from the National Survey on Drug Use and Health (NSDUH), NH has some of the highest nationwide rates of alcohol use, marijuana use, and prescription drug misuse, particularly among youth and young adults. Capital Area rates of substance use are typically similar or slightly lower than NH state averages. *Figure 9* below illustrates past 30-day use of key substances of concern among high school aged youth in the Capital Area and in NH.

Figure 9. Past 30-Day Use by Substance among High School Aged Youth *(YRBS, 2013)*.



By all accounts, the misuse of alcohol and drugs is a key concern of NH residents, including those in the Capital Area. According to a recent poll conducted in October 2015 by the University of NH Survey Center, 25% of NH adults now identify "drug abuse" as the most pressing issue facing the state, followed by jobs and the economy (21%), which has held the top position for the past eight years. In October of 2014, only 3% of NH adults identified "drug abuse" as the most important issue. In the Capital Area, according to the 2015 Capital Region Community Health Needs Assessment, "Drug and Substance Use" was rated as one of the top five priority health needs. Nearly all stakeholders interviewed and more than half of the 12 focus groups conducted as part of the assessment identified the need to address substance misuse in the region. This topic was also rated as a high priority by telephone respondents, with 39% of those surveyed identifying drug use as an *extremely* or *very serious* problem and 30% identifying alcohol use as an *extremely* or *very serious* problem. [28]

* Also see Appendix A for the 2016-2019 Capital Area Substance Misuse Prevention Strategic Plan, which provides additional data, as well as background information on prevention efforts taking place in the region.

[28] Concord Hospital. 2015. Capital Region Community Health Needs Assessment.

This significant increase in community concern is likely connected to the growing number of overdose deaths attributed to the use of opioids, including heroin and fentanyl. Overdose deaths have surpassed traffic-related deaths in NH every year since 2008.[29] According to the NH Medical Examiner's office, there were 326 drug-related overdose deaths in the state in 2014. In the Capital Area, there were 29 overdose deaths in the same year. The average age of those who died by an overdose in the Capital Area was 40 years old *(see Figures 10a and 10b)*. Opioids/opiates were present in 93% of overdose deaths and 41% of the deaths occurred in Concord. Eighty-six percent (86%) of these deaths were ruled accidental deaths, 10% were suicide deaths, and 4% were undetermined.

Figures 10a and 10b. Drug-related overdose deaths in Capital Area *(NH Medical Examiner's Office, 2014)*.

Figure 10a.

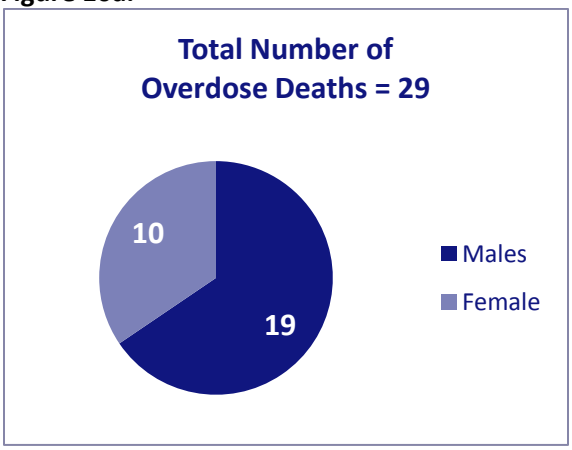


Figure 10b.

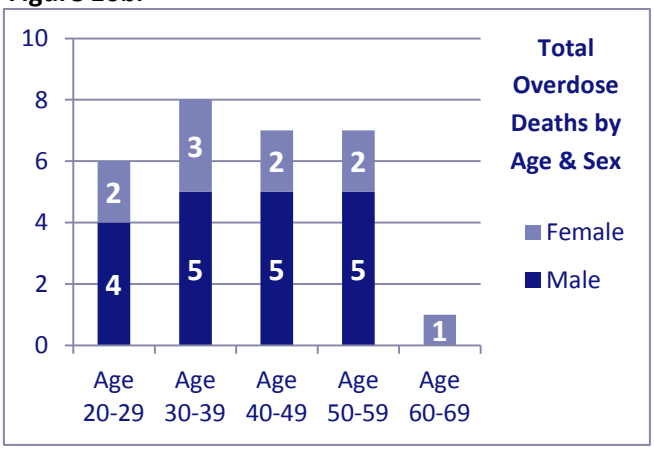
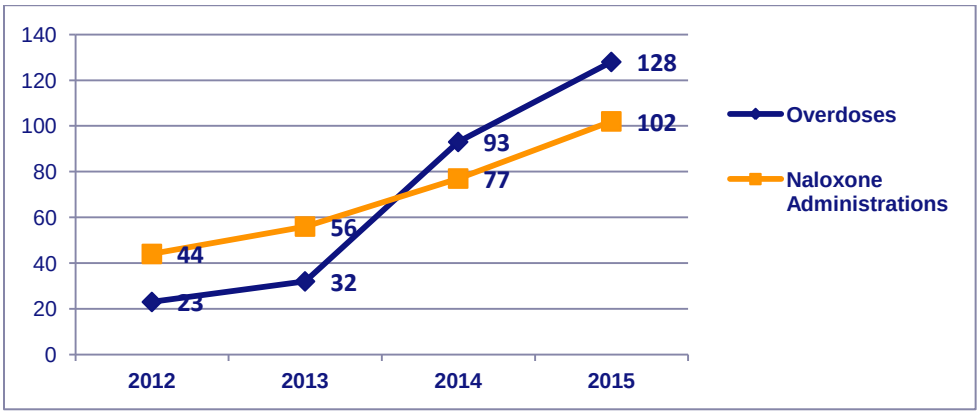


Figure 11 below shows the increasing number of overdoses (fatal and non-fatal) within the City of Concord since 2012, as well as the increasing rate of Naloxone administration by EMS personnel.

Figure 11. Overdoses (*non-fatal and fatal*) and Naloxone Administrations in Concord for 12 month periods ending July 31st of each year *(NH Trauma Emergency Medical Services Information System - TEMSIS, 2012-2015).*



[29] Office of the Chief Medical Examiner. New Hampshire Department of Justice. Concord, NH. Retrieved from http://doj.nh.gov/medical-examiner/documents/drug-deaths.pdf on 9/30/2015.

Substance misuse negatively impacts all sectors of society, from individuals and families to government and businesses. The effects of substance misuse are widespread, with negative implications for public health and wellbeing, including an alarming cadre of medical, social, safety, and economic costs. According to a recent analysis, substance misuse cost the NH economy over $1.84 billion dollars in 2012, an amount equal to about 2.8 percent of the state's gross state product or $1,393 dollars for every person in the state.[30] These costs include lost productivity and earnings, increased expenditures for healthcare, and public safety costs. In the same report, it is stated that only about six percent (6%) of individuals who misuse alcohol or drugs in NH currently receive treatment for their substance misuse. In fact, PolEcon Research (2014) contends that doubling the substance abuse treatment rate in NH to 12% is estimated to result in net benefits to the state of between $83 and $196 million.

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), every dollar invested in treatment saves $4 in healthcare costs and $7 in law enforcement/judicial costs. We also know that prevention efforts are even more cost-effective, with an estimated return on investment ranging between $7.40 and $36 per dollar invested, with a medium estimate of $18 (SAMHSA, 2008). Addressing substance misuse in our state and in the Capital Area will save lives and save resources.

GOALS & OBJECTIVES*

GOAL 1.1	**PREVENT AND REDUCE SUBSTANCE MISUSE (INCLUDING ALCOHOL, MARIJUANA, PRESCRIPTION DRUGS) AMONG YOUTH AND YOUNG ADULTS (12-34) IN THE CAPITAL AREA BY 2020.**	***BASELINE & TARGETS:*** • *PAST 30-DAY ALCOHOL USE: high school baseline of 32.0% in 2013 to a decrease in 2015 and 2017 to 24.0% in 2019. Young adult [18-25] baseline [for central 2 region of NH and past 30-day binge use] of 46.0% in 2010-2012 to a decrease in 2015 and 2017 to 38.0% in 2019.* • *PAST 30-DAY USE MARIJUANA: high school baseline of 21.7% in 2013 to a decrease in 2015 and 2017 to 16.0% in 2019. Young adult [18-25] baseline [for central 2 region of NH] of 23.8% in 2010-2012 to a decrease in 2015 and 2017 to 17.0% in 2019.* • *PAST 30-DAY MISUSE RX DRUGS: High school baseline of 7.2% in 2013 to a decrease in 2015 and 2017 to 4.2% in 2019. Young adult [18-25] baseline [for Central 2 region of NH and past year use] of 11.0% in 2010-2012 to a decrease in 2015 and 2017 to 8.0% in 2019.* ***Sources:** YRBS, National Survey on Drug Use and Health (NSDUH)*
Objective 1.1.1	***Access & Availability*** Decrease access to alcohol (among underage population), marijuana and prescription drugs (without a doctor's prescription) among youth and young	***BASELINE & TARGETS:*** • *ALCOHOL: High school baseline of 38.4% in 2013 to a decrease in 2015 and 2017 to 30.0% in 2019.* • *MARIJUANA: High school baseline of 42.6% in 2013 to a decrease in 2015 and 2017 to 35.0% in 2019.* • *RX DRUGS: High school baseline of 14.8% in 2013 to a decrease in 2015 and 2017 to 10.0% in 2019.*

[30] PolEcon Research. November 2014. The Corrosive Effects of Alcohol and Drug Misuse on NH's Workforce and Economy. Retrieved from http://www.new-futures.org/sites/default/files/Summary%20Report_0.pdf on September 30, 2015.

**The majority of baselines and targets have been determined for this priority area. This is because we have a better since of trend data related to the misuse of drugs and alcohol and also have a better understanding of expected scope/saturation of inputs/activities to impact the indicators.*

	adults.	***Source:*** *YRBS*
Objective 1.1.2	***Parental Monitoring & Communication*** a. Increase the percentage of youth and young adults (12-20) who report talking with at least one of their parents or guardians about the dangers of tobacco, alcohol, or other drug use. b. Increase the percentage of youth and young adults (12-20) who report that their parents or other adults in their family have clear rules and standards for their behavior.	***BASELINE & TARGETS:*** • *High school baseline of 49.1% in 2013 to an increase in 2015 and 2017 to 55.0% in 2019.* ***Source:*** *YRBS* ***BASELINE & TARGETS:*** • *High school baseline of 77.9% in 2013 to an increase in 2015 and 2017 to 84.0% in 2019.* ***Source:*** *YRBS*
Objective 1.1.3	***Perception of Risk*** Increase the percentage of youth and young adults (12-34) who think people are at great risk of harming themselves (physically or in other ways) if they…. ➢ have five or more drinks of alcohol (beer, wine, or liquor) once or twice a week; ➢ use marijuana once or twice a week; ➢ take a prescription drug without a doctor's prescription.	***BASELINE & TARGETS:*** • *ALCOHOL: High school baseline of 32.1% in 2013 to an increase in 2015 and 2017 to 40.0% in 2019. Young Adult [18-25] baseline [for Central 2 region of NH] of 27.6% in 2010-2012 to an increase in 2015 and 2017 to 35.0% in 2019.* • *MARIJUANA: High school baseline of 21.6% to an increase in 2015 and 2017 to 30.0% in 2019. Young Adult [18-25] baseline [for Central 2 region of NH] of 10.0% in 2010-2012 to an increase in 2015 and 2017 to 15.0% in 2019.)* • *RX DRUGS: High school baseline of 63.2% in 2013 to an increase in 2015 and 2017 to 70.0% in 2019. No Young Adult [18-25] baseline.* ***Sources:*** *YRBS, NSDUH*
Objective 1.1.4	***Self-Medicating Behavior*** *(Unmet Need for Mental Health Care)* Decrease the percentage of youth and young adults (12-34) who misuse substances for the purposes of "self-medicating."	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by focus groups, key informant interviews, and Key Stakeholder Survey.*
Objective 1.1.5	***Social Determinants of Health*** Increase health equity by creating social and physical environments that promote good health for all across the Capital Area.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by a social vulnerability index and compilation of data sets creating a socioeconomic ranking from the NH Center for Public Policy Studies.*
Objective 1.1.6	***Social Norms*** a. Decrease the discrepancy that exists between perceptions of peer use and actual use of substances among youth and young adults (12-24). b. Increase the perception of peer, parental, and community disapproval for substance misuse among youth and young adults (12-34).	***BASELINE & TARGETS:*** • *Baseline and targets for gap between perception of peer use and actual use to be determined. As measured by focus groups, key informant interviews, and youth survey.* ***BASELINE & TARGETS:*** • *PEER PERCEPTION ALCOHOL: High school baseline of 57.3% in 2013 to an increase in 2015 and 2017 to 65.0% in 2019. PARENT PERCEPTION ALCOHOL: High school baseline of 88.1% in 2013 to an increase in 2015 and 2017 to 92.0% in 2019.* • *PEER PERCEPTION MARIJUANA: High school baseline of 43.2% in 2013 to an increase in 2015 and 2017 to 48.0% in 2019. PARENT PERCEPTION MARIJUANA: High school baseline of 85.0% in 2013 to an increase in 2015 and 2017 to 90.0% in 2019.*

		• *PEER PERCEPTION RX DRUGS: High school baseline of 78.5% in 2013 to an increase in 2015 and 2017 to 85.0% in 2019. PARENT PERCEPTION RX DRUGS: High school baseline of 94.5% in 2013 to an increase in 2015 and 2017 to 97.0% in 2019.* ***Source:*** *YRBS*
Objective 1.1.7	***Access to Services*** Increase community knowledge of and access to resources available to address substance misuse across the continuum of care (prevention, intervention, treatment, recovery) among all populations.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by the Key Stakeholder Survey.*

GOAL 1.2	**DECREASE THE NUMBER OF DRUG-RELATED OVERDOSE DEATHS IN THE CAPITAL AREA AMONG ALL AGE GROUPS BY 2019.**	***BASELINE & TARGETS:*** • *Baseline of 29 deaths in the Capital Area in 2014 to a decrease each year to zero drug-related overdose deaths in 2019.* ***Source:*** *NH Office of the Medical Examiner*
Objective 1.2.1	***Access to Services*** Increase community knowledge of and access to resources available to address substance misuse across the continuum of care (prevention, intervention, treatment, recovery) among all populations.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by focus groups, key informant interviews, and the Key Stakeholder Survey.*
Objective 1.2.2	***Access and Availability*** Increase access to and education regarding the use of Naloxone by healthcare providers and community members.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by focus groups, key informant interviews, and the Key Stakeholder Survey.*
Objective 1.2.3	***Lack of Knowledge*** Increase knowledge among community members regarding Good Samaritan law.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by focus groups, key informant interviews, and the Key Stakeholder Survey.*

GOAL 1.3	**PROMPTLY RESPOND TO AND PREVENT HARMS ASSOCIATED WITH EMERGING DRUG THREATS IN THE CAPITAL AREA.**	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by meeting minutes, entries to P-Wits, focus groups, key informant interviews, and the Key Stakeholder Survey.*
Objective 1.3.1	***Assessment*** Increase data collection and monitoring efforts among key stakeholders and sectors to identify and track emerging issues of concern related to substance misuse.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by meeting minutes, entries to P-Wits, focus groups, key informant interviews, and the Key Stakeholder Survey.*
Objective 1.3.2	***Capacity Building*** Increase the capacity of key stakeholders and sectors to identify, proactively address, and respond to emerging issues of concern related to substance misuse.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by meeting minutes, entries to P-Wits, focus groups, key informant interviews, and the Key Stakeholder Survey.*

Objective 1.3.3	***Planning & Implementation*** As emerging issues arise, follow the Strategic Prevention Framework to develop and implement appropriate, research-based strategies to address concerns.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by meeting minutes, entries to P-Wits, focus groups, key informant interviews, and the Key Stakeholder Survey.*

STRATEGIC APPROACH

Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***	**Strategy 4:** ***Environmental change***
• Advocate for sectors to consider impacts on misuse of drugs and alcohol when making policy decisions. • Advocate for laws and policies that support a full continuum of services to address the misuse of drugs and alcohol. • Work with sectors, particularly schools, to develop comprehensive policies and procedures to encourage healthy environments and behaviors. • Integrate primary care, mental health care, and substance abuse prevention, treatment and recovery support, including integrated data collection, training, and services. • Support youth advocates through the Capital Area	• Develop social marketing campaigns that provide simple, consistent messaging to be used across all key community sectors to increase perception of risk of substance misuse and improve social norms in the community. • Implement responsible opioid prescribing workshops. • Increase provider use of the Prescription Drug Monitoring Program to identify and address problems related to prescription drug misuse. • Develop and implement resource materials for community sectors to be able to effectively prevent and respond to substance misuse concerns. • Provide education and training to key	• Develop and implement Substance Use Disorder first aid training and curriculum. • Implement Project Success/Student Assistance programs in area middle and high schools. • Support Community-/Problem-Oriented Policing to address complex community concerns, including the misuse of drugs and alcohol, with a focus on connecting residents to available services and supports when possible. • Implement and evaluate "Life of an Athlete" in area high schools. • Support the implementation of evidence-based Screening, Brief Intervention, and Referral to Treatment (SBIRT) in a wide range of health care	• Promote and support local "Take-Back" events and permanent boxes to encourage safe and regular disposal of unused prescription medications.

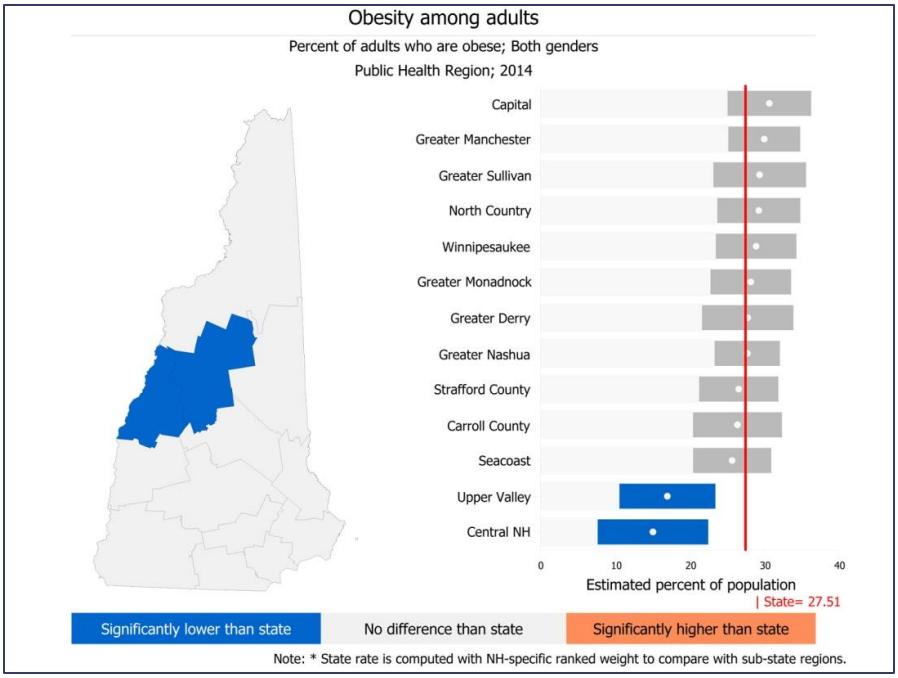
Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***	**Strategy 4:** ***Environmental change***
Youth Councils. • Follow the Strategic Prevention Framework as a planning process (assessment, capacity-building, planning, implementation, evaluation, cultural competency, sustainability).	community stakeholders regarding the use of Naloxone and laws and policies, such as the Good Samaritan law.	settings, including primary care and emergency or urgent care.	

Priority Area 2: Obesity

BACKGROUND

Obesity is a complex public health problem that is associated with several chronic diseases, including coronary heart disease, type 2 diabetes, some types of cancer, high blood pressure, stroke, and liver and gallbladder disease.[31] Obesity and related medical costs in the United States exceed $147 billion annually, which accounts for nearly 10% of all medical spending.[32] In the Capital Area, cardiovascular health (with obesity named as a key risk factor) has been identified as a priority health need in the 2015 Capital Region Health Needs Assessment.

Figure 12. Adult Obesity Rates in NH by Public Health Region. Source: BRFSS, 2014.



Obesity in adults is defined as a body mass index (BMI) of 30 or higher and overweight is defined as a BMI of 25 or higher. BMI is calculated in relation to an individual's height and weight.

The obesity rate among adults in NH is currently 27.5% and has been steadily climbing since 2009, when the rate was only 9.9%.[33] The rate of obesity among adults in the Capital Area is similar to the NH rate, at 30.7%, as demonstrated in *Figure 12*. Additionally, approximately 34.9% of NH adults are overweight, compared to 32.4% of Capital Area adults. This means that over 6 out of 10 Capital Area adults meet the guidelines for overweight or obese.

Also concerning are rates of obesity and overweight status in children and adolescents. The rate of obesity among third grade students in Merrimack County is 14.7%, compared to 12.6% among third grade youth in NH (Third Grade Survey, 2014). Among high school students, approximately 12.3% are

[31] NH Department of Health and Human Services, Division of Public Health Services, Chronic Disease Prevention and Management Program. (2013). Burden of obesity, diabetes, and heart disease in New Hampshire.
[32] Estimates. Health Affairs. 28: w822-w831.
[33] Trust for America's Health and Robert Wood Johnson Foundation. (2015). The state of obesity 2015 [PDF]. Washington, D.C. Retrieved from http://stateofobesity.org/files/stateofobesity2015.pdf on November 1, 2015.

obese and 14.0% overweight in Merrimack County, compared to 11.4% obese and 14.1% overweight in NH (YRBS, 2013). Childhood obesity also increases the risk of obesity in adulthood.[34]

A complicated relationship exists between obesity and poverty. While those with low socioeconomic status (SES) certainly have numerous risk factors for obesity, including high levels of stress, lack of access to healthy, affordable foods and limited opportunities for physical activity, the associations are not always clear. According to a study by Zheng and Wang, 2004, the association between low SES and obesity has been decreasing over a 30-year period. Other research shows that among women obesity prevalence increases as income and education decreases, while the same association does not exist among men.[35] Still, according to an analysis of the 2007 National Survey on Children's Health, children of parents with less than 12 years of education had an obesity rate 3.1 times higher (30.4 percent) than those whose parents have a college degree (9.5 percent) and children living in low-income neighborhoods are 20 percent to 60 percent more likely to be obese or overweight than children living in high socioeconomic status neighborhoods and healthier built environments. Additionally, data from the NH Third Grade Survey (2008-2009) found obesity rates higher in schools with greater than 50% of students participating in the Free and Reduced Lunch Program compared to schools with less than 25% of students participating (27.3% vs. 16.3% respectively).

In the Capital Area, stakeholders frequently identified "people who eat poorly" and those with poor eating habits as being among the most "at-risk" populations.[36] There are geographic pockets in the region with food insecurity/limited food access. Additionally, according to the 2015 Capital Region Community Health Needs Assessment, the rate of grocery stores per 100,000 population is lower in the Capital Region (14.6) than NH (19.1) or the United States (21.2). Other factors identified by Capital Area stakeholders that research shows impact obesity, in addition to unhealthy eating, include physical activity, breastfeeding, and screen time. While the rate of these behaviors among Capital Area residents does not differ significantly with state averages, there is still cause for concern due to the serious consequences of obesity on health outcomes such as length of life and quality of life.

GOALS & OBJECTIVES*

GOAL 2	REDUCE THE PROPORTION OF CHILDREN AND ADULTS CONSIDERED OVERWEIGHT AND OBESE IN THE CAPITAL AREA BY 2020.	***BASELINE:*** • *14.7% of Merrimack County children were obese in 2014.* • *12.3% of Merrimack County high school aged youth were obese in 2013.* • *14.0% of Merrimack County high school aged youth were overweight in 2013.* • *30.7% Capital Area adults were obese in 2014.* • *32.4% of Capital Area adults were overweight in 2012.*

[34] Deshmukh-Taskar, P., Nicklas, T. A., Morales, M., Yang, S. J., Zakeri, I., & Berenson, G. S. (2006). Tracking of overweight status from childhood to young adulthood: The Bogalusa Heart Study. European Journal of Clinical Nutrition, 60, 48-57.
[35] Ogden CL, Lamb MM, Carroll MD, Flegal KM. Obesity and socioeconomic status in adults: United States 1988–1994 and 2005–2008. NCHS data brief no 50. Hyattsville, MD: National Center for Health Statistics. 2010.
[36] Concord Hospital. (2015). Capital Region Community Health Needs Assessment.
**Targets to be determined by the workgroups, once we have a better understanding of the scope/saturation of expected inputs/activities and resources available to impact the indicators.*

		Sources: *Third Grade Survey (TGS), Youth Risk Behavior Survey (YRBS), Behavioral Risk Factor Surveillance Survey (BRFSS)*
Objective 2.1	***Healthy eating*** Increase healthy eating among youth and adults.	***BASELINE:*** • *89.0% of Capital Area high school aged youth consumed fruit on one or more days in the past week in 2011.* • *89.5% of Capital Area high school aged youth consumed vegetables on one or more days in the past week in 2011.* • *30.4% of Capital Area adults consumed 5 or more servings of fruits or vegetables per day in 2009.* ***Sources:*** *YRBS, BRFSS*
Objective 2.2	***Active living*** Increase the number of youth and adults who engage in physical activity.	***BASELINE:*** • *87.4% of Capital Area high school aged youth were physically active for a total of at least 60 minutes per day on five or more of the past seven days in 2013.* • *57.5% of Capital Area adults met aerobics and strengthening physical activity guidelines in 2011.* ***Sources:*** *YRBS, BRFSS*
Objective 2.3	***Breastfeeding*** Increase breastfeeding initiation, duration, and exclusivity among women who have children.	***BASELINE:*** • *79.5% of Merrimack County WIC infants were breastfed in 2013.* • *23.9% of Merrimack County WIC infants were breastfed at 6 months in 2013.* ***Source:*** *Pediatric Nutrition Surveillance System (PNSS)*
Objective 2.4	***Screen time*** Decrease the number of hours of recreational screen time per day among youth.	***BASELINE:*** • *23.5% of Capital Area high school aged youth watched 3 or more hours of TV on an average school day in 2009.* • *23.8% of Capital Area high school aged youth used a computer for non-school related activities for 3 or more hours on an average school day in 2009.* ***Source:*** *YRBS*

STRATEGIC APPROACH

Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***	**Strategy 4:** ***Environmental change***
• Advocate for sectors to consider impacts on obesity when making policy decisions. • Support schools and early learning centers in meeting nutritional, physical activity, and screen time guidelines.	• Increase public awareness and education of risk factors for obesity through social marketing, workshops, trainings, and "point of decision" prompts.	• Implement counseling, behavioral interventions, and screenings in healthcare settings to address nutrition, physical activity and screen time. • Implement worksite nutrition and physical	• Increase and promote availability of healthy foods and physical activity. • Restrict availability of unhealthy foods. • Modify the environment to encourage healthy eating and physical

Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***	**Strategy 4:** ***Environmental change***
• Implement workplace policies, programs, and practices that support breastfeeding.		activity programs.	activity.

Priority Area 3: Access to Comprehensive Behavioral Health Services

BACKGROUND

Behavioral health care encompasses a broad range of coordinated mental health and addiction services. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), behavioral health "refers to mental/emotional well-being and/or actions that affect wellness."[37] Behavioral Health Access and Affordability was identified as one of the top five priority health needs in the 2015 Capital Region Community Health Needs Assessment. When asked about the top priorities to improve, Capital Area residents identified drug use, alcohol use, and mental health problems as the top three choices.[38] Mental health issues and substance use were repeatedly identified as concerns by respondents in the telephone survey, online survey, focus groups, and stakeholder interviews.

The Capital Area has statistically significantly higher rates of mental health condition inpatient discharges per 100,000 people (453.2) than the NH state average (373.0) (NH DHHS Hospital Discharge Data Collection System, 2009). The Capital Area also has higher mental health condition emergency department visits and observation stays per 100,000 people (1745.6) compared to NH state average (1511.6) according the same data source. Additionally, substance abuse-related emergency hospital discharges, age-adjusted per 10,000 population (82.3) are significantly higher than the NH state average (68.3).[39]

According to the Behavioral Risk Factor Surveillance Survey (BRFSS, 2012), 12.3% of Capital Area adults report that there were 14 to 30 days within the past 30 days during which their mental health was not good, compared to 11.6% of adults statewide reporting the same. Among adolescents, 24.5% of Capital Area high school aged youth report within 12 months prior to the survey that they felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities, compared to 25.4% statewide (YRBS, 2013). Just over 15% of Capital Area adolescents report they seriously considered attempting suicide within the previous 12 months, compared to just over 14% statewide (YRBS, 2013). YRBS data also associates suicide attempts with higher likelihood of recent substance misuse. Additional data within the region supports the existence of shared risk factors related to substance misuse, mental health, and suicide.

Barriers that impact access to comprehensive behavioral health care services in the Capital Area include affordable insurance coverage and a lack of awareness concerning available resources and services

[37] Substance Abuse and Mental Health Services Administration (SAMHSA). (2014). National Behavioral Health Quality Framework. Retrieved from http://www.samhsa.gov/data/national-behavioral-health-quality-framework/ on September 30, 2015.
[38] Concord Hospital. (2015). Capital Region Community Health Needs Assessment.
[39] NH DHHS Hospital Discharge Data Collection System, 2003-2007.

and/or how to access those services. These needs, identified by Capital Area Public Health Network stakeholders, were echoed in the findings of the hospital needs assessment. Affordability was determined to be the primary barrier to obtaining needed health care and understanding insurance and the healthcare system was identified consistently throughout numerous community listening sessions, focus groups, and written and online surveys.[40]

Behavioral health integration is defined by the World Health Organization (WHO) as, "The management and delivery of health services so that clients receive a continuum of preventive and curative services, according to their needs over time and across different levels of the health system."[41] Integration provides for the systematic coordination of general and behavioral health care to provide the best possible outcomes for people with multiple healthcare needs.

GOALS & OBJECTIVES*

GOAL 3	**IMPROVE ACCESS TO A COMPREHENSIVE, COORDINATED CONTINUUM OF BEHAVIORAL HEALTH CARE SERVICES IN THE CAPITAL AREA BY 2020.**	***BASELINE:*** • *89.1% of Capital Area adults report having "any health care coverage" in 2012.* • *Ratio of population to mental health care providers in Merrimack County is 364:1 in 2014.* ***Sources:*** *BRFSS, NPI Registry*
Objective 3.1	***Insurance*** Increase access to affordable insurance coverage.	***BASELINE:*** • *13.7% of Capital Area adults reported they could not see doctor because of cost in 2012.* • *89.1% of Capital Area adults report having "any health care coverage" in 2012.* • *51.0% of Capital Area adults have a health insurance plan through employer, 16.2% have Medicare, 4.4% have Medicaid, and 5.4% have a plan purchased on own.* ***Sources:*** *BRFSS*
Objective 3.2	***Integrated system of care*** a. Increase access to behavioral health supports in primary care settings.	***BASELINE:*** • *91.5% of Capital Area adults have one or more personal doctors or health care providers in 2012.* • *# of embedded behaviorists are on primary care staff at Concord Hospital /Capital Region Family Health Center.* ***Sources:*** *BRFSS, Endowment for Health*
	b. Decrease rates of emergency room visits or hospitalizations that could have been prevented.	***BASELINE:*** • *82.3 per 10,000 population (age-adjusted) rate of substance abuse-related emergency hospital discharges in the Capital Area in 2003-2007.* • *1745.6 per 100,000 people rate of mental health condition emergency department visits and observation stays in the Capital Area in 2009.* • *Rate of preventable hospital stays in Merrimack*

[40] Concord Hospital. (2015). Capital Region Community Health Needs Assessment.
[41] World Health Organization (WHO). (2008). Integrated health services: What and why?. Technical Brief No. 1, 2008. Retrieved from http://www.who.int/healthsystems/service_delivery_techbrief1.pdf on November 30, 2015.
**Targets to be determined by the workgroups, once we have a better understanding of the scope/saturation of expected inputs/activities and resources available to impact the indicators.*

		County is 50 per 1,000 Medicare enrollees in 2012. ***Sources:*** *BRFSS, NH DHHS Hospital Discharge Data Collection System*
Objective 3.3	***Services*** a. Increase awareness of available services across the continuum of care. b. Increase the number of services across the continuum of care to address unmet needs.	***BASELINE:*** • *Baseline to be determined. As measured by meeting notes, continuum of care assessment, focus groups, key informant interviews, and a key stakeholder survey.*

STRATEGIC APPROACH

Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***
• Support policies that increase access to insurance coverage, including Medicaid, employer-based insurance and plans offered through the marketplace. • Identify and develop key components of a comprehensive system of care for behavioral health services. • Develop systems and protocols that support Primary Behavioral Healthcare Integration.	• Promote information and referral resources among providers and within communities.	• Develop and implement Mental Health and Substance Use Disorder first aid training and curriculum.

Priority Area 4: Educational Achievement

BACKGROUND

It is well known that healthier students are better learners and achieve better educational outcomes. Research clearly shows that health factors such as physical activity and nutrition, as well as overall health status influence students' motivation and ability to learn.[42] However, research also clearly and definitively shows that "better educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive."[43] Additionally, **"**more schooling is linked to higher incomes, better employment options, and increased social supports that, together, support opportunities for healthier choices."[44] Even when income and health care insurance status are controlled for, the affect of one's level of educational achievement on health outcomes such as length of life and quality of life remain significant.

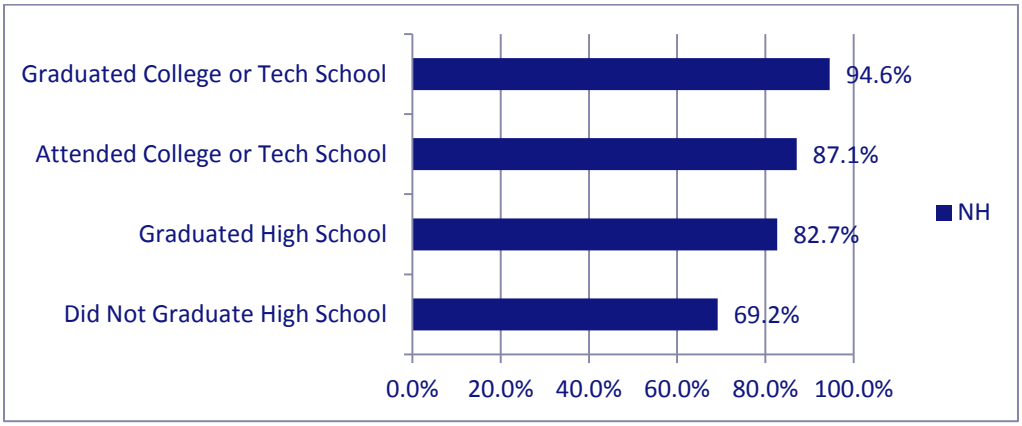
Educational achievement status can also influence multiple generations, with evidence showing an impact of maternal and parental education on children's health. Alarmingly, children whose mothers graduated from college are twice as likely to live past their first birthday.[45] In addition, according to the same study from the Center on Society and Health (2014), on average, college graduates live nine more years than those who dropout from high school.

Additional benefits gained from educational attainment include higher income, which in turn, also leads to positive health outcomes. It is estimated that for each additional year of schooling, annual income increases by approximately 11%.[46] Better educated workers are able to endure economic downturns, such as recessions, more effectively than their less educated counterparts. Therefore, it is in our best interest to advocate for high quality, accessible educational opportunities for all residents, from childhood to adulthood.

As shown in the following *Figure 13*, NH residents with higher educational attainment are more likely to report being in "good or better health" than residents with less education.

[42] Basch, C. (2011). Healthier students are better learners: A missing link in school reforms to close the achievement gap. Journal of School Health. 81-1.
[43] Robert Wood Johnson Foundation. (2015). County Health Rankings & Roadmaps. Why is education important to health? Retrieved from http://www.countyhealthrankings.org/our-approach/health-factors/education on November 30, 2015.
[44] Robert Wood Johnson Foundation. (2015). County Health Rankings & Roadmaps. Why is education important to health? Retrieved from http://www.countyhealthrankings.org/our-approach/health-factors/education on November 30, 2015.
[45] Center on Society and Health. (2014). Education: It matters more to health than ever before. Richmond: Center on Society and Health, Virginia Commonwealth University (VCU); 2014.
[46] Egerter S, Braveman P, Sadegh-Nobari T, Grossman-Kahn R, Dekker M. (2011). Education and health. Princeton: Robert Wood Johnson Foundation (RWJF). Exploring the Social Determinants of Health Issue Brief No. 5.

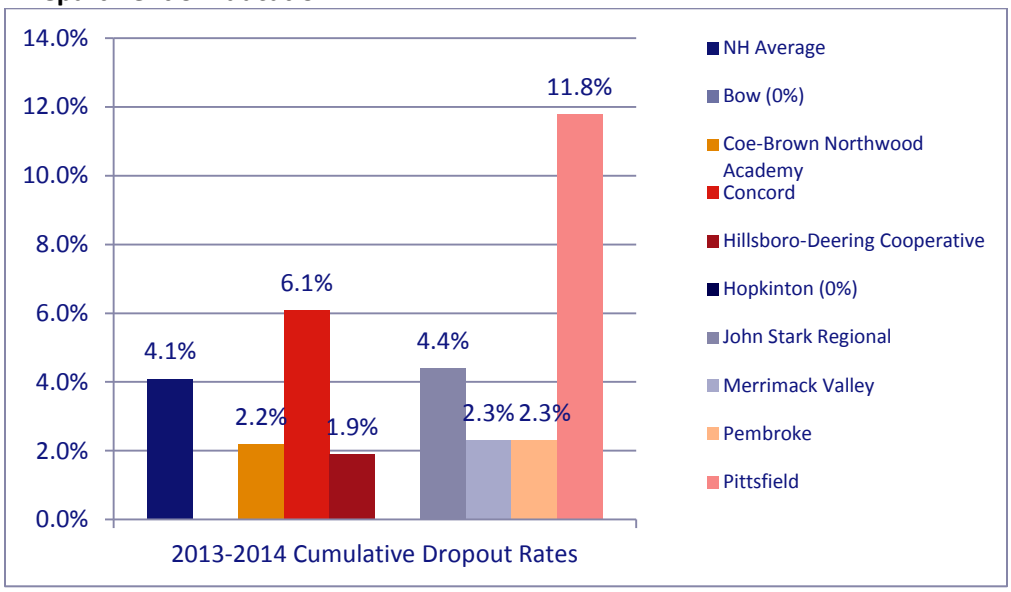
Figure 13. NH adults reporting "good or better" health by educational attainment, 2010. Source: BRFSS.



At particular risk for educational, and therefore health disparities are vulnerable populations, including those living in poverty or with low socioeconomic status (SES). Research shows that despite growing graduation rates, gaps still exist among these populations. National Kids Count data from 2015 looked at NH 4th graders who scored below proficient reading level and within that group, compared those who are eligible for free/reduced school lunch (74%) with those who are not eligible for free/reduced school lunch (46%). This discrepancy outlines the disparity that negatively impacts people living with low SES.

High school dropout rates for the Capital Area tend to be lower than NH state average, but vary across our geography, as demonstrated in the chart below. This illustrates another potential association with living in a high risk community and being at risk for poor educational outcomes.

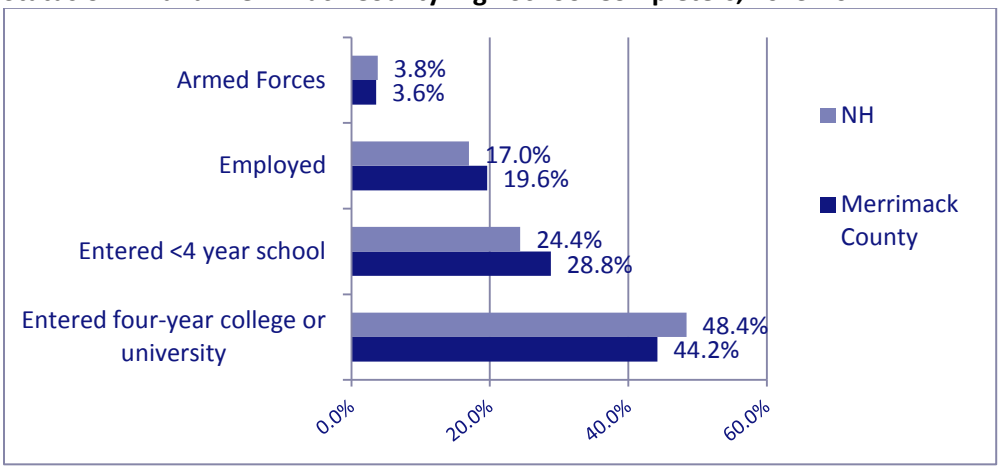
Figure 14. "4-Year Cumulative" Dropout Rates[47] among NH and Capital Area schools, 2013-2014. Source: NH Department of Education.



[47] Cumulative Rates = 1 - (1 - annual rate)^4. This formula applies the annual rate to a progressively declining base population. The cumulative rate represents the percentage of current students who will early exit or drop out before reaching graduation if the annual rate does not change. This rate is not applicable to Charter Schools due to high migration.

On average, the Capital Area fares quite well when compared to NH concerning many protective factors that influence pursuit of higher education upon high school graduation. Surprisingly, however, high school completers from Merrimack County are less likely to enter a four-year college or university compared to the average NH student. In Merrimack County, out of those who completed high school in the 2013-2014 school year, approximately 44.2% have entered four year colleges and universities, 28.8% have entered "less than four year" schools, 19.6% are employed, 3.6% are in the armed forces, and the remaining are either unemployed or status is unknown. Comparisons with NH state averages are shown in *Figure 15* below.

Figure 15. Status of NH and Merrimack County High School Completers, 2013-2014.



Other factors that improve school readiness, thus impacting educational achievement, include access to high quality, affordable early childcare education, pre-kindergarten and full-day kindergarten. Merrimack County has fewer childcare slots per 100 children (138.6) than the NH state average (151.0).[48] In the Capital Area, the following communities are the only ones that currently offer full-day kindergarten programs, according to the NH Department of Education (2014-2015): Andover, Hillsboro-Deering Cooperative, Hopkinton, Kearsarge Regional, Merrimack Valley, Pembroke, Pittsfield, and Washington.

GOALS & OBJECTIVES*

GOAL 4	**IMPROVE COMMUNITY HEALTH BY INCREASING THE NUMBERS OF YEARS AND QUALITY OF EDUCATION ACHIEVED BY YOUTH AND ADULTS IN THE CAPITAL AREA BY 2020.**	***BASELINE:*** *92% of Merrimack County residents over age 25 have at least a high school education, 33.3% have a Bachelor's degree or higher, 29.8% have some college or Associate's degree, and 29.0% have High School degree or GED.* ***Sources:*** *American Community Survey, 2013.*
Objective 4.1	***Accessibility*** Increase opportunities for high quality and accessible education for all residents from	***BASELINE:*** • *8 school districts in the Capital Area currently offer full-day kindergarten as of December 2015.* ***Source:*** *NH Department of Education (NH DOE)*

[48] NH Kids Count Data Book. (2010-2011). Child Care Licensing. Data set has several limitations. See source for details.

**Targets to be determined by the workgroups, once we have a better understanding of the scope/saturation of expected inputs/activities and resources available to impact the indicators.*

	early childhood to adulthood.	
Objective 4.2	***School, college & career readiness*** Improve school, college and career readiness among children, youth, and young adults.	***BASELINE:*** • *Baseline to be determined. As measured by High School GPA, SAT scores, rates of remediation courses, other assessment tools.*
Objective 4.3	***Socioeconomic status disparities*** Improve graduation rates among low-income and/or high-risk populations.	***BASELINE:*** • *Cumulative, 4 yr dropout rates in the Capital Area range from 0% to 11.8%.* ***Source:*** *NHDOE*

STRATEGIC APPROACH

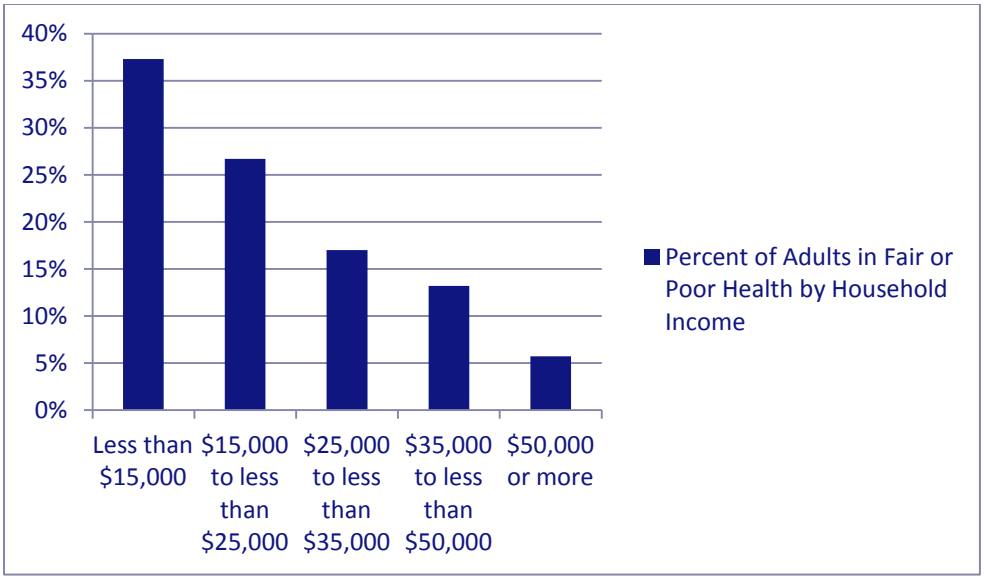
Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***
• Advocate for universal full-day kindergarten and universal pre-kindergarten programs to improve reading and mathematics achievement.	• Promote existing educational programs, including early childhood, high-school completion and out of school time academic programs, particularly those that are easily accessible to low-income and high-risk populations. • Raise awareness among key sectors and the general public concerning the impact of educational achievement on health outcomes.	• Support and implement early childhood education programs that address literacy, numeracy, cognitive development, socio-emotional development, and motor skills. • Support and implement high school completion programs for students at high-risk for non-completion.

Priority Area 5: Economic Wellbeing

BACKGROUND

According to the County Health Rankings and Roadmaps report, social and economic factors are not only the largest single driver of health outcomes, but also significantly influence health behaviors, the second greatest influence on health and longevity.[49] The relationship between income and health is not only based on the fact that income allows individuals to purchase quality medical care, but income also provides an array of options for healthy lifestyle choices. People living in poverty are more likely to have limited access to healthy foods, safe neighborhoods, employment options, and quality schools. Even more alarming are the health outcomes for the wealthiest in our society compared to the poorest among us. Income inequality is extremely harmful to one's health and can actually result in a shorter lifespan. According to a 2011 report, people in the highest income bracket live six full years longer than people in the lowest income bracket.[50] *Figure 16* below demonstrates this relationship between NH adults who report being in fair or poor health and household income.

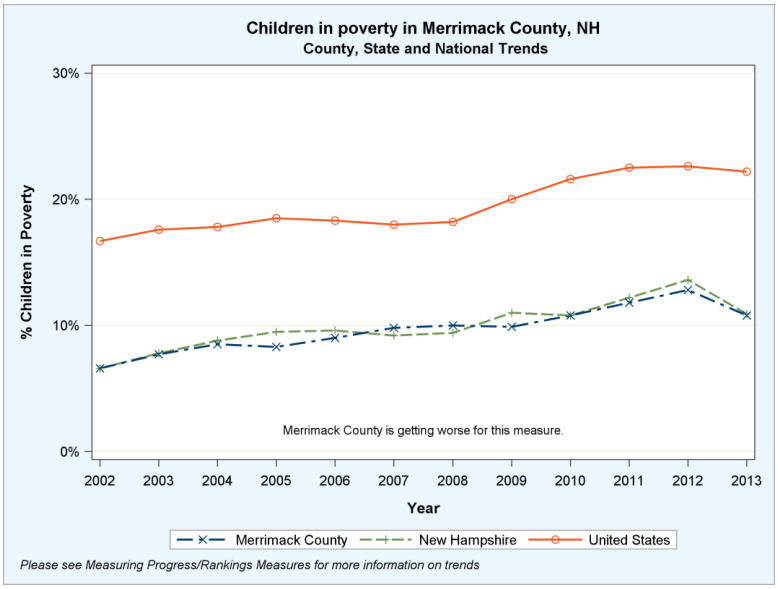
Figure 16. Percent of NH Adults in Fair or Poor Health by Household Income. (2011-2012). Source: BRFSS.



Unfortunately, our must vulnerable populations, including children, are most at-risk for negative health outcomes associated with poverty. In fact, early poverty can result in developmental damage to young children, with IQ at age five correlated more closely with family income than other known influences such as maternal education, ethnicity, and living in a single female-headed household.

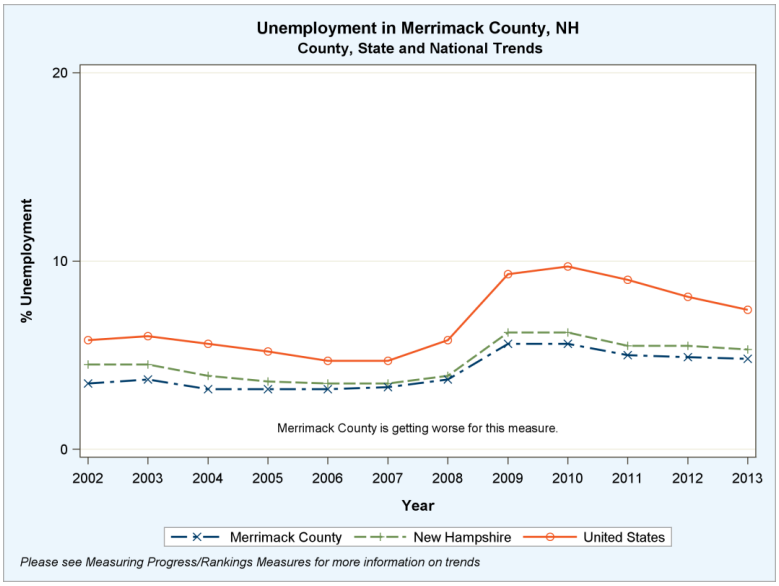
[49] Robert Wood Johnson Foundation. (2015). County Health Rankings and Roadmaps. Retrieved from www.countyhealthrankings.org on November 15, 2015.
[50] Braveman P, Egerter S, Barclay C. *Income, wealth and health*. Princeton: Robert Wood Johnson Foundation (RWJF); 2011. Exploring the Social Determinants of Health Issue Brief No. 4.

Figure 17. Children in poverty in Merrimack County. (2002-2013). Source: US Census.



According to the County Health Rankings and Roadmaps report, 11% of children in Merrimack County are living in poverty and this indicator is getting worse over time. The percentage of children living in poverty in NH is also 11% and in the United States is higher at 21%.

Figure 18. Unemployment in Merrimack County. (2002-2013). Source: County Health Rankings.



Another factor that influences income and health is unemployment. People who are unemployed are 54% more likely to be in poor or fair health than individuals who are employed.[51]

These individuals are also more likely to suffer from a number of poor health conditions, including stress, high blood pressure, heart disease, and depression.[52] In the Merrimack County region, unemployment rates are worsening over time, though still lower than NH and the United States overall.

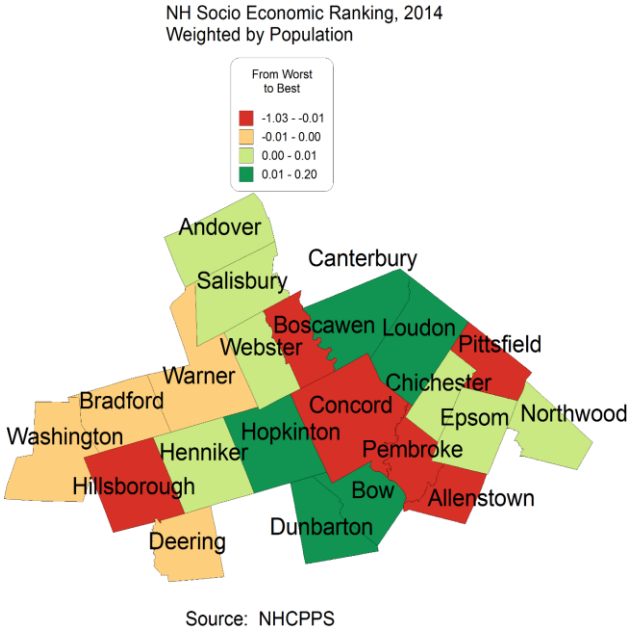
In the Capital Area, we have particular communities at risk based on social vulnerabilities, including poverty, low income, an unemployment. The NH Center for Public Policy Studies created a socioeconomic ranking for the Capital Area, based on the following indicators:

- Percent of Pop 25 and older with BA or better
- 2012 Median HH Income
- 2012 Poverty Rate
- 2012 Households with Food Stamps
- Medicaid Members as a % per Pop
- Low to Moderate Income Percentage
- Elementary Per Pupil Expenditures 2011/12
- 2013TaxRate
- Ratio of House Price to Income 2012
- Poverty Under 18
- Poverty 65 plus
- 2013 grad rate

[51] An J, Braveman P, Dekker M, Egerter S, Grossman-Kahn R. *Work, workplaces and health*. Princeton: Robert Wood Johnson Foundation (RWJF); 2011. Exploring the Social Determinants of Health Issue Brief No. 4.

[52] Robert Wood Johnson Foundation. *Stable jobs = healthier lives*. NewPublicHealth blog. January 14, 2013. Accessed November 15, 2015.

Figure 19. NH Socio Economic Ranking, 2014.
Source: NH Center for Public Policy Studies.



This ranking shows the communities within the Capital Area that are most vulnerable to risk factors, such as low income and poor education, which negatively impact health behaviors and health outcomes. Highlighted in red, with the lowest ranking, include:

- Allenstown
- Boscawen
- Concord
- Pembroke
- Pittsfield
- Hillsborough

It is incumbent upon our Public Health Network and region to help increase the financial capability of residents, while also working to decrease the impact of socioeconomic disparities on health status.

GOALS & OBJECTIVES*

GOAL 5	**IMPROVE COMMUNITY HEALTH BY PROMOTING ECONOMIC WELL-BEING FOR INDIVIDUALS, FAMILIES, AND COMMUNITIES IN THE CAPITAL AREA BY 2020.**	***BASELINE:*** • *9.5% of individuals in Merrimack County are living in poverty in 2014.* • *11% of children in Merrimack County are living in poverty in 2014.* *Source: American Community Survey, US Census*
Objective 5.1	***Asset development*** a. Increase access to economic opportunities and assets for low-income individuals and families.	***BASELINE:*** • *8,867 tax returns in Merrimack County received the Earned Income Tax Credit (EITC) in 2013.* • *2,355 tax returns in Merrimack County received the Child Tax Credit (CTC) in 2013.*
	b. Increase "financial capability"[53] of residents.	***BASELINE:*** • *3.6% of Merrimack County households do not have a checking or savings account in 2011.* • *17.9% of Merrimack County households that have a checking and/or savings account that have used alternative financial services in the past 12 months in 2011.* • *Other baselines to be determined. As measured by financial knowledge and skills, financial behavior and attitudes, and financial status.*
	c. Decrease the percentage of households experiencing "asset poverty."[54]	***BASELINE:*** • *15.8% of Merrimack County households are without sufficient net worth to subsist at the*

[53] "Financial Capability" is defined as "the capacity, based on knowledge, skills, and access, to manage financial resources effectively." Source: Exec. Order No. 13530 (2010).
[54] "Asset Poverty" is defined as the percentage of households without sufficient net worth to subsist at poverty level for three months in absence of income. Source: Corporation for Enterprise Development (CFED).

		poverty level for three months in the absence of income in 2011. • *29.9% of Merrimack County households are without sufficient liquid assets to subsist at poverty level for three months in the absence of income in 2011.* ***Sources:*** *Assets & Opportunity Scorecard, American Community Survey , FDIC National Survey of Unbanked and Underbanked Households, Brookings Institute EITC Interactive Database, Internal Revenue Service*
Objective 5.2	***Socioeconomic status disparities*** Decrease impact of socioeconomic status disparities on health status.	***BASELINE*** • *The ratio of household income at the 80th percentile to income at the 20th percentile in Merrimack County is 4.1 from 2009-2013.* • *Socioeconomic ranking in Capital Area ranges from -1.03-0.20.* ***Sources:*** *American Community Survey, NH Center for Public Policy Studies Socioeconomic Ranking*

STRATEGIC APPROACH

Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***
• Work with local businesses to implement policies and practices to improve workplace productivity, retention, advancement, and financial stability for employees. • Advocate for policies and laws that advance economic opportunity, particularly among disenfranchised populations.	• Raise awareness among key sectors and the general public concerning the impact of economic wellbeing and socioeconomic disparities on health outcomes. • Encourage the integration of asset building and financial capability into social services and programs for low-income and vulnerable populations.	• Train social service providers to assist their clients in addressing short and long-term financial barriers that impact health and wellness. • Assist individuals and families in accessing the Earned Income Tax Credit (EITC) and other relevant financial resources.

**Targets to be determined by the workgroups, once we have a better understanding of the scope/saturation of expected inputs/activities and resources available to impact the indicators.*

Priority Area 6: Public Health Emergency Preparedness

BACKGROUND

Public health threats are always present and can be caused by natural, accidental, or intentional means. All kinds of emergencies can have implications for public health, including natural disasters, illness, terrorism, and more. In recent years, NH and the Capital Area have experienced floods, hurricanes, ice storms, H1N1 (Swine Flu), and Hepatitis A outbreak, all with significant implications for public health and safety. It is essential that our communities and residents have adequate capacity to prepare for, respond to, and recover from these types of emergencies. Efforts to build capacity must be focused on both regional preparedness activities that engage government officials, community stakeholders, and volunteers, as well as personal preparedness activities that engage Capital Area residents.

While significant progress has been made to prepare communities for public health threats since 2001, it is important to continue to monitor public health preparedness capabilities as the national standard for effective efforts at the local, regional, state levels.

Figure 20. Centers for Disease Control and Prevention (CDC) Public Health Preparedness Capabilities[55]

[55] Centers for Disease Control and Prevention (CDC). (2011). Public Health Preparedness Capabilities: National Standards for State and Local Planning. Retrieved from http://www.cdc.gov/phpr/capabilities/DSLR_capabilities_July.pdf on November 15, 2015.

As part of the Medical Countermeasure Dispensing capability, the CDC's Division of Strategic National Stockpile (DSNS) Technical Assistance Review (TAR) provides a comprehensive assessment of capacities for medical countermeasure delivery. In the most recent 2014 Local TAR, the Capital Area scored higher than the state average on all but one element of preparedness. See *Table 2* below for additional details on the scores for each element.

Black or no change in font = no change in score
Red or *italic* and underline = score decreased
Green or **bold** = increased score

Table 2. 2014 Local Technical Assistance Review (TAR) Scores by Public Health Region, 2014. Source: TAR.

Overall Preparedness	Capital Area	Carroll County	Central NH	Derry	Winnipesaukee	Manchester	Monadnock	Nashua	North Country	Seacoast	Strafford County	Sullivan	Upper Valley	State Average	CRI Average
Overall Preparedness	**90**	*74*	**84**	*90*	*65*	*91*	**92**	**88**	**89**	*86*	**83**	**90**	**72**	**84**	**89**
Developing Plan with SNS Elements (3%)	100	83	*83*	*83*	83	100	*83*	**75**	**100**	*75*	**100**	83	100	*88*	**88**
Management of SNS (10%)	92	75	**100**	*83*	*67*	*83*	*92*	**83**	**100**	*75*	**75**	92	*58*	83	**83**
Requesting SNS (3%)	100	100	**100**	100	100	100	*80*	100	**100**	100	100	**100**	100	**98**	**97**
Communications Plan – Tactical (3%)	92	67	**67**	**92**	**50**	**92**	**83**	**75**	**83**	**75**	42	**67**	*42*	**71**	**79**
Public Information and Communications (3%)	100	79	**93**	100	**86**	100	**100**	**86**	86	86	**93**	**100**	**93**	**92**	**95**
Security (10%)	100	*50*	**90**	100	**40**	100	**100**	**90**	**90**	90	**90**	**100**	*70*	**85**	**96**
Regional/Local Distribution Site (12%)															
Inventory Management (9%)	**100**	**100**	**100**	100	**70**	**100**	**100**	**100**	**100**	**100**	**80**	**80**	**100**	**95**	**97**
Distribution (10%)															
Medical Countermeasure Dispensing (22%)	**73**	*73*	**65**	*81*	*65*	92	**88**	**85**	**77**	*85*	**92**	**92**	**69**	**80**	**85**
Hospital and Alternate Care Facilities (3%)															
Training and Exercise (8%)	**100**	**68**	**89**	*89*	*58*	*68*	**89**	**100**	**100**	*89*	*63*	**84**	**47**	**80**	**86**

In terms of personal preparedness, the Capital Area rates on par with state averages. Among residents in the Capital Area, 32.6% feel their household is "well prepared" to handle a large-scale disaster or emergency, compared with 32.2% statewide.[56] Other indicators of personal preparedness are identified in *Table 3* below.

Table 3. Personal Preparedness in Capital Area and NH, 2013. Source: BRFSS.

Have a…	Capital Area	NH
3-day supply of Rx medication	83.3%	82.7%
3-day supply of water	64.4%	63.2%
Written evacuation plan	17.0%	16.8%

[56] Behavioral Risk Factor Surveillance System (BRFSS). (2013).

GOALS & OBJECTIVES

GOAL 6	**DEVELOP AND EXPAND OVERALL CAPACITY TO PREPARE FOR, RESPOND TO, AND RECOVER FROM PUBLIC HEALTH EMERGENCIES IN THE CAPITAL AREA BY 2020.**	***BASELINE & TARGETS:*** • *Preparedness related to medical countermeasures and dispensing score of 90 through the Technical Assistance Review (TAR) in 2014. Targets to be determined based on MCM ORR data indicators.* ***Source:*** *TAR, MCM ORR*
Objective 6.1	***Personal preparedness*** a. Increase the capacity of individuals, families, and community members to prepare for, respond to, and recover from public health emergencies.	***BASELINE & TARGETS:*** • *83.3% of Capital Area residents have a 3-day supply of Rx medications in 2013 to an increase to 89.3% in 2020. 64.4% have a 3-day supply of water in 2013 to an increase to 70.4% in 2020. 17.0% have a written evacuation plan in 2013 to an increase to 23.0% in 2020.* ***Source:*** *BRFSS*
	b. Increase the proportion of residents who report they are "well-prepared" to handle a large-scale disaster or emergency.	***BASELINE & TARGETS:*** • *32.6% of Capital Area residents self-report being "well-prepared" to handle a large-scale disaster or emergency to an increase to 40.0% in 2020.* ***Source:*** *BRFSS*
Objective 6.2	***Regional preparedness*** a. Increase regional capacity of communities to prepare for, respond to, and recover from public health emergencies.	***BASELINE & TARGETS:*** • *Preparedness related to medical countermeasures and dispensing score of 90 through the Technical Assistance Review (TAR) in 2014. Targets to be determined based on MCM ORR data indicators.* ***Source:*** *TAR, MCM ORR*
	b. Increase the proportion of key community organizations that engaged in a significant public health emergency preparedness activity.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by attendance rosters, After Action Reports, trainings, and member rosters.*
	c. Ensure inclusive planning processes to prepare for and respond to public health emergencies.	***BASELINE & TARGETS:*** • *Baseline and targets to be determined. As measured by meeting minutes, rosters, outreach plans, After Action Reports, and trainings.*

STRATEGIC APPROACH

Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***
• Convene key stakeholders and facilitate inclusive regional public health emergency planning and response processes. • Ensure the capability to collect and report situational awareness information to state agencies during emergencies. • Maintain regional mass dispensing plans. • Develop After Action Reports following each public health emergency event.	• Develop public education campaign to inform and prepare individuals and communities. • Increase awareness of community partners and citizens regarding potential risks.

Priority Area 7: Injury Prevention

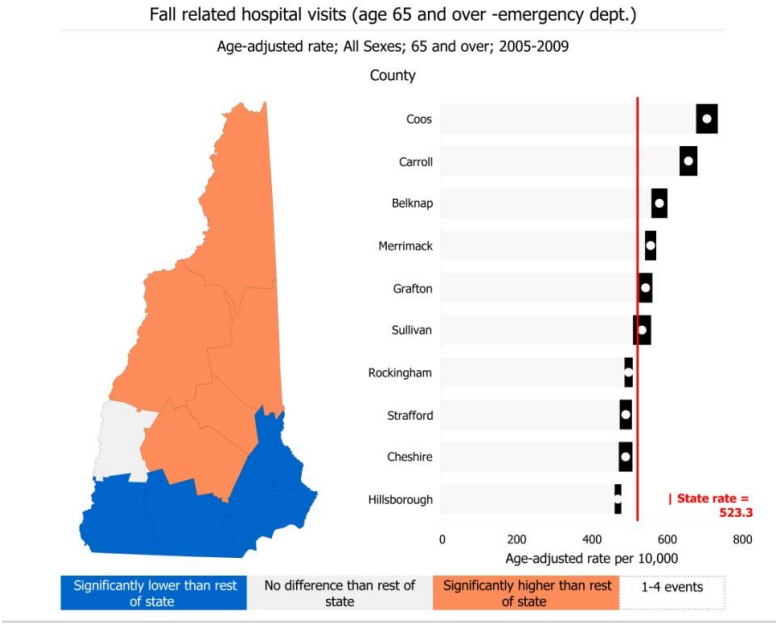
BACKGROUND

Injury prevention is the number one cause of death among people ages 1-44 in New Hampshire (NH).[57] The impact of injuries can be substantial to individuals, but presents significant costs to society as well. According to the NH Division of Public Health Services, the total costs for emergency and inpatient hospital visits due to falls among older adults was $105.6 million dollars. Costs related to suicide deaths in NH are $379,000 annually and loss of potential work productivity costs another $161 million dollars.[58]

OLDER ADULT FALLS

Among NH residents 65 and older, falls are the leading cause of both fatal and non-fatal injuries. In the Capital Area, the age-adjusted rate for fall related deaths among those 65 and older is 88.3 per 100,000, compared to 82.4 per 100,000 statewide[59]. Fall related deaths have increased between 2000 and 2013. Fall related hospital visits for those 65 and older are shown in the chart below for Merrimack County and NH. Merrimack County's age-adjusted rate per 10,000 (558.1) is significantly higher than NH overall (523.3).[60] The higher a person's age, the more likely they are to die from a fall or require a hospital stay due to a fall.

Figure 21. Fall related hospital visits (age 65 an over). 2005-2009.



[57] NH Department of Health and Human Services (NH DHHS). (2009). Injuries in the State of New Hampshire 2001-2009. Retrieved from http://www.dhhs.nh.gov/dphs/bchs/mch/documents/nh-injuries-2001-2009-report.pdf on December 1, 2015.
[58] NH Department of Health and Human Services (NH DHHS). (2013). New Hampshire's 2011 Suicide Prevention Annual Report, Suicide Across the Lifespan.
[59] NH Death Certificate Data. (2009-2013).
[60] NH Hospital Discharge Data Set. (2005-2009).

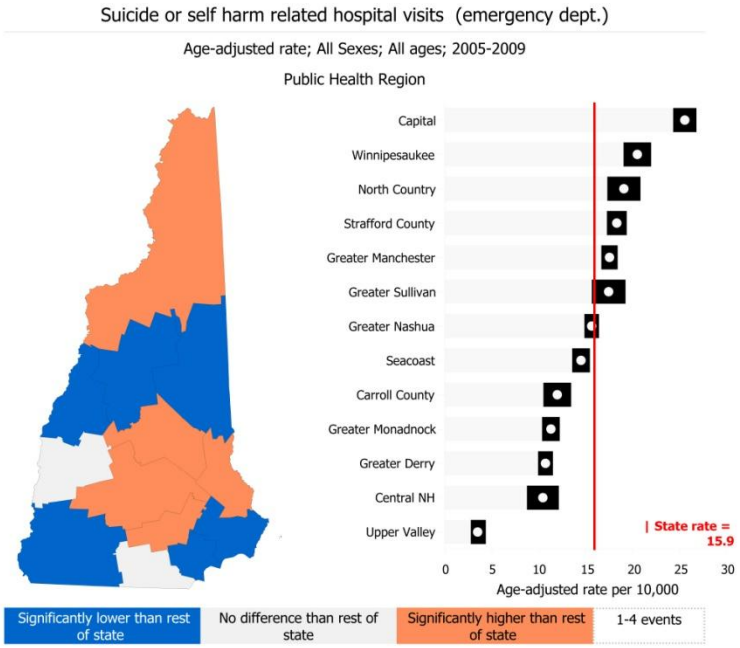
Risk factors for falls among older adults include fear of falling, low levels of strength and balance, and environmental hazards. These are the areas in which we can have a positive impact to prevent falls and injury among older adults.

SUICIDE

Suicide is a major public health problem across the nation and is the second leading cause of death in NH among 15-34 year olds, historically outnumbering homicides by eight to one.[61] Suicide deaths impact families and communities in extraordinarily significant ways; actually increasing suicide risk for family and friends of those who died by suicide. In an average year across NH, approximately 156 people die by suicide, 186 are hospitalized, and close to 945 are treated in emergency rooms for self-inflicted injuries in an average year.[62]

As depicted in *Figure 22,* the age-adjusted rate of suicide or self-harm related visits to the emergency rooms during 2005-2009 was significantly higher than the state overall, with an age-adjusted rate of 26.8 per 10,000 in the Capital Area compared to 15.9 per 10,000 in NH.[63]

Figure 22. Suicide or self harm related hospital visits, 2005-2009. Source: NH Hospital Discharge Data.



Among youth in the Capital Area, according to the 2013 Youth Risk Behavior Survey, 6.7% of high school aged youth attempted suicide, compared to 6.9% statewide. In addition, and particularly troubling, 15.4% of Capital Area youth seriously considered suicide within the past 12 months (YRBS, 2013). In addition, nearly one in four high school students (24.5%) felt so sad or hopeless almost every day for

[61] New Hampshire Suicide Prevention Council. 2013 Revised Suicide Prevention Plan. Retrieved from http://www.dhhs.nh.gov/dphs/suicide/index.htm on September 30, 2015.
[62] New Hampshire Suicide Prevention Council. 2013 Revised Suicide Prevention Plan. Retrieved from http://www.dhhs.nh.gov/dphs/suicide/index.htm on September 30, 2015.
[63] New Hampshire Hospital Discharge Data Set. (2005-2009).

two weeks or more in a row that they stopped doing some usual activities. While this is significant cause for concern, tremendous hope still exists, since we know that suicide is generally preventable. We have outlined the most significant risk factors we intend to impact in the Capital Area in the table below.

GOALS & OBJECTIVES*

GOAL 7.1	**REDUCE THE RATE OF FALLS AMONG OLDER ADULTS, AGES 65 AND OLDER, IN THE CAPITAL AREA BY 2020.**	***BASELINE:*** *28.58% of Capital Area adults age 65 and over have experienced a fall in 2014.* ***Sources:*** *BRFSS*
Objective 7.1.1	***Fear of falling*** a. Decrease fear of falling among older adults. b. Increase confidence among older adults regarding falls and balance.	***BASELINE:*** *Baseline to be determined. As measured by Falls Risk Assessments , Falls Efficacy Scales, and focus groups.* ***BASELINE:*** *Baseline to be determined. As measured by Falls Risk Assessments , Falls Efficacy Scales, and focus groups.*
Objective 7.1.2	***Strength & balance*** Increase strength and balance among older adults.	***BASELINE:*** *Baseline to be determined. As measured by falls risk assessments , falls efficacy scales, and medical assessment.*
Objective 7.1.3	***Environmental hazards*** Decrease environmental hazards that may increase falls among older adults.	***BASELINE:*** *Baseline to be determined. As measured by falls risk assessments, falls efficacy scales, and environmental scans.*

GOAL 7.2	**REDUCE THE NUMBER OF SUICIDE DEATHS IN THE CAPITAL AREA BY 2020.**	***BASELINE:*** • *Age-adjusted suicide mortality rate for Capital Area is 11.8 per 100,000 population, 2009-2013.*
Objective 7.2.1	***Risk for suicide*** a. Decrease suicide or self-harm related hospital visits (emergency room and inpatient). b. Decrease percentage of youth and adults who seriously considered suicide. c. Decrease percentage of youth who report feeling sad or hopeless.	***BASELINE:*** • *Age-adjusted rate for suicide or self-harm related hospital visits is 26.8 per 10,000 population, 2005-2009.* ***BASELINE:*** • *15.4% of Capital Area high school aged youth seriously considered suicide in past 12 months in 2013.* • *2.15% of Merrimack County adults seriously considered suicide in past 12 months in 2009.* ***BASELINE:*** • *24.5% of Capital Area youth report feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities in 2013.* ***Sources:*** *BRFSS, YRBS*
Objective 7.2.2	***Safe messaging*** Increase safe messaging in Capital Area communities and key sectors, including the	***BASELINE:*** • *Baseline to be determined. As measured by number of safe messaging trainings conducted,*

	media.	*materials distributed, and messages disseminated.*
Objective 7.2.3	***Knowledge & capacity*** Increase knowledge and capacity of community "gatekeepers" and sectors regarding best practices in suicide prevention.	***BASELINE:*** • *Baseline to be determined. As measured by CONNECT training evaluations, number of trainings conducted, and number of "gatekeepers" trained.*

STRATEGIC APPROACH

Strategy 1: ***Systems change, advocacy, policy & planning***	**Strategy 2:** ***Awareness & education***	**Strategy 3:** ***Direct evidence based/research informed programming***	**Strategy 4:** ***Environmental change***
• Advocate for policies that support falls prevention initiatives and strategies. • Advocate for policies that support mental health and suicide prevention education, awareness and strategies. • Work with key community sectors and organizations, including the media, to establish safe messaging policies and procedures.	• Increase awareness and education among the public, particularly older adults, about preventing falls. • Promote falls prevention programs in home and community settings. • Promote safe messaging strategies among all sectors, including media. • Promote the National Suicide Prevention Lifeline and other information and resources to support prevention efforts. • Develop messaging and resources to support survivors of suicide attempts and survivors of suicide loss.	• Implement evidence-based falls prevention programs, including Matter of Balance and Tai Ji Quan: Moving for Better Balance. • Implement multi-component falls prevention interventions among older adults (exercise, education, home or environmental modification, medication optimization, and vitamin D supplementation). • Implement evidence-based training programs, including CONNECT prevention and postvention programs.	• Assess and address environmental hazards in the home by conducting falls risk assessments. • Work with key community sectors to reduce access to lethal means.

Priority Area 8: Lead Poisoning Prevention

BACKGROUND

According to the United States Environmental Protection Agency (EPA), lead is a naturally occurring element and can be found in all parts of our environment. Federal and state regulations have successfully reduced levels of lead in the air, soil, drinking water, food, and consumer products. However, there are still significant risks related to lead exposure, particularly among children and pregnant women. Children can be exposed to lead in a variety of ways, but most significantly by touching objects with lead and then putting their hands in their mouths, as young children often do. Lead poisoning impacts nearly 1 million children in the United States and can cause a host of health problems, including behavior and learning problems, lower IQ and hyperactivity, slowed growth, hearing problems, anemia, and even cause seizures, coma and death in rare cases.[64] There is no safe blood lead level in children. Effects of lead exposure cannot be reversed, so the goal is to prevent exposure.

Lead poisoning is entirely preventable. However, certain populations are at higher risk for elevated blood lead levels, including children under 6, children who live at or below the poverty line and children from certain racial or ethnic groups living in older housing. [65] According to data from the US Census, 30.47% of homes in the Capital Area were built before 1950 and 34.06% were built between 1950-1979. The US Census (2000) also shows that approximately 9% of Merrimack County children under six years of age are living in poverty. According to the CDC, only 1701 or 17.8% of all children under age 6 in Merrimack County had their blood lead levels tested in 2008.

In the Capital Area, according to 2009 BRFSS data, 1.5% of children tested had elevated blood lead levels, compared to only 0.78% of children statewide. This represents a Capital Area rate that is 192% of the state average. This significant difference necessitates a deeper investigation into the root causes and factors present in the region impacting this data.

GOALS & OBJECTIVES*

GOAL 8	**DECREASE THE RATE OF ELEVATED BLOOD LEAD LEVELS AMONG CHILDREN UNDER 6 YEARS OF AGE IN THE CAPITAL AREA BY 2020.**	***BASELINE:*** • *1.5% of Capital Area children under 6 years of age who were tested had elevated blood lead levels in 2009.* ***Sources:*** *BRFSS*

[64] United States Environmental Protection Agency (EPA). (2015). Learn about lead. Retrieved from http://www.epa.gov/lead/learn-about-lead on October 15, 2015.
[65] Centers for Disease Control and Prevention (CDC). (2015). Lead prevention tips. Retrieved from: http://www.cdc.gov/nceh/lead/tips.htm on October 15, 2015.
**Targets to be determined by the workgroups, once we have a better understanding of the scope/saturation of expected inputs/activities and resources available to impact the indicators.*

Objective 8.1	***Assessment*** Increase understanding of the root causes and factors that contribute to elevated blood lead levels among children in the Capital Area.	***BASELINE:*** • *Baseline to be determined. As measured by meeting notes, training evaluations, focus groups, key informant interviews, and a key stakeholder survey.*
Objective 8.2	***Exposure to lead paint*** Decrease exposure of children to lead paint in older housing and to the contaminated dust and soil it generates.	***BASELINE:*** • *Baseline to be determined. As measured by self-reports from at-risk families and documented cases of lead abatement activities.*
Objective 8.3	***Testing*** Increase number of children under 6 years of age tested for elevated blood lead levels.	***BASELINE:*** • *17.8% of children <6 years of age had their blood lead levels tested in 2008.* ***Sources:*** *BRFSS, CDC*

STRATEGIC APPROACH

Strategy 1: *Systems change, advocacy, policy & planning*	**Strategy 2:** *Awareness & education*	**Strategy 3:** *Direct evidence based/research informed programming*	**Strategy 4:** *Environmental change*
• Conduct comprehensive assessment to determine factors that contribute to high blood lead levels among children in Capital Area. • Advocate for universal lead screenings in high-risk communities.	• Increase awareness among healthcare providers and parents concerning the importance of testing and the general hazards associated with lead-based paint and dust.	• Work with healthcare providers to increase testing for elevated blood lead levels among children under age 6.	• Access resources to assist with lead abatement efforts.

NEXT STEPS

There are four major tasks that must be completed following the completion of the Capital Area CHIP. Each of these steps is currently in process, but must continue to be addressed to ensure the success of this plan.

WORKGROUPS

The Capital Area Public Health Network will work with existing partners within its Public Health Advisory Council, Granite United Way's Community Impact Committee, and Concord Hospital's Needs Assessment Workgroup to identify lead agencies and workgroups to address each priority area of the Capital Area CHIP. The PHAC Executive Committee will be responsible for general oversight of CHIP implementation. Workplans will be developed outlining specific areas of responsibility for each collaborating agency. There are many existing workgroups in the region already focused on one or more of the priority areas of the CHIP. These

OUTREACH & COMMUNICATIONS

CAPHN staff and PHAC members will reach out to key community sectors and stakeholders to present the CHIP at public forums, meetings and events. Additional one on one outreach will be made to community leaders to enlist their support in the implementation of the CHIP strategies. The CHIP will be posted to the CAPHN website and widely publicized through social media, email, and other communication mechanisms.

RESOURCE DEVELOPMENT

Significant resources have already been allocated for CHIP implementation in the Capital Area, particularly in the areas of Misuse of Alcohol and Drugs, Access to Comprehensive Behavioral Health Services, Educational Achievement, Economic Wellbeing, and Emergency Preparedness. Most of this funding originates from existing CAPHN grants and contracts, including NH DHHS and NH Charitable Foundation, and from a recent financial commitment by Granite United Way's Community Impact Committee volunteers to invest in key focus areas within this plan. Additional resource development efforts will be ongoing to acquire the necessary resources for successful implementation.

EVALUATION PLAN

A formal evaluation plan will be developed in early 2016 and will require the workgroups to develop realistic targets for each goal and objective within the Capital Area CHIP, based on the inputs and resources allocated to each priority area, as well as the baseline measurements we already have for most indicators. Each of the goals and objectives within this plan is measurable and will assist our stakeholders in tracking progress towards our shared outcomes. The Evaluation Plan will include short-term, intermediate, and long-term outcomes to allow for ongoing analysis of our successes and challenges in implementing the CHIP and working to towards improved health outcomes and healthier communities in the Capital Area in the months and years to come.

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