Public Health Council of the Upper Valley

Upper Valley Public Health Region Community Health Improvement Plan: 2015 to 2017

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Acknowledgements

Major Contributors:
Alice R. Ely, MPH, CPS
Coordinator, Public Health Council of the Upper Valley
Executive Director, Mascoma Valley Health Initiative

Emma Hartswick
Tucker Foundation Fellow, Dartmouth College

D. Wesley Miller
Upper Valley Emergency Preparedness Coordinator

Gregory Norman
Director, Dartmouth Hitchcock Community Health

Aita V. Romain
Upper Valley Continuum of Care Facilitator for Substance Misuse Services

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Misuse of Alcohol and Drugs
Members of the All Together Substance Misuse Prevention Partnership

Promoting Healthy Weight
Kristen Coats, Upper Valley HEAL at CHAD
Deborah Doucette, D-H Weight and Wellness Center
Anna Adachi-Mejia, Health Promotion Research Center at Dartmouth

Oral Health
Nancy B. Dumont, Alice Peck Day Memorial Hospital
Gregory Norman, Dartmouth Hitchcock Community Health

Older Adult Falls Prevention
Roberta Berner, Grafton County Senior Citizens Council
Debra Samaha, Injury Prevention Center at Dartmouth
Dawna Pidgeon, Dartmouth-Hitchcock Rehabilitation Medicine
Jill Vahey, Grafton County Senior Citizens Council
Ellen Flaherty, Dartmouth Center for Health and Aging

Public Health Emergency Preparedness
Chris Christopoulos, Chief, Lebanon Fire Department, & RCC Chair
Members of the Regional Coordinating Committee for Emergency Preparedness (RCC)

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Improving health, preventing disease, reducing costs for all

MVHi
Your Public Health Initiative

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The Municipalities of Canaan, Dorchester, Enfield, Grantham, Hanover, Lyme, Orange, Orford, Plainfield, and Piermont

Executive Summary

Community Profile:

The Upper Valley Public Health Region consists of 13 municipalities: Canaan, Cornish, Dorchester, Enfield, Grafton, Grantham, Hanover, Lebanon, Lyme, Orange, Orford, Piermont, and Plainfield.

Overall, the Upper Valley appears to be a very healthy place, and on most indicators of population health, our region compares favorably with New Hampshire and the nation. The Upper Valley has even surpassed some Healthy People 2020 goals.[1] However, these positive measures do not tell the whole story; our research shows that significant disparities in access to health care, health risk factors, and health outcomes exist within the region. These challenges increase as the distance from the Hanover/Lebanon core of our region increases.

Vision and Mission of the Upper Valley Public Health Council (PHC):

PHC members have embraced a vision that by working together, our Upper Valley community will be healthy, safe, supportive, and vital. Our mission is to improve the health of Upper Valley residents through shared public health initiatives and services within a network of community stakeholders. We accomplish this by:

- Listening to community needs;
- Building a shared public health agenda;
- Promoting collaborative solutions; and
- Bringing support to underserved areas.

Community Health Improvement Planning:

Between August 2013 and June 2014, PHC leadership reviewed existing community needs assessments and other data, engaged community stakeholders in discussions of health-related concerns, and selected a list of indicators that would allow us to track our efforts to make a difference. The Upper Valley Agenda for Public Health, released in December 2014, lays out nineteen, often inter-connected, priorities for our region. By promoting collective action to address the priority needs and by tracking these indicators, the PHC expects to demonstrate community-based public health improvements.

This Community Health Improvement Plan addresses five of nineteen areas of concern for our Upper Valley region. These were selected for inclusion in this plan based on existing momentum, resources, and willing partnerships; we also see any progress on these issues as a tool for building and strengthening partnerships and demonstrating how the PHC can operate to improve health in our region. Our Plan addresses:

1. Misuse of Alcohol and Drugs
2. Promoting Healthy Weight
3. Oral Health
4. Falls Prevention
5. Public Health Emergency Preparedness

[1] Ely AR. *The Upper Valley Community Health Outreach Project.* Rural Health Care Services Outreach Grant Program. Canaan, NH: Mascoma Valley Health Initiative.

I. Introduction

The **Upper Valley Public Health Network** is one of 13 regional public health networks in New Hampshire. Each Regional Public Health Network (RPHN) includes a host agency that has a contract with the NH Department of Health and Human Services to convene, coordinate, and facilitate public health partners in their region. These partners collectively are the Public Health Network. 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. The PHAC has overseen the development of this Community Health Improvement Plan. More information about each of New Hampshire's Public Health Networks can be found at http://nhphn.org/who-we-are/public-health-networks/.

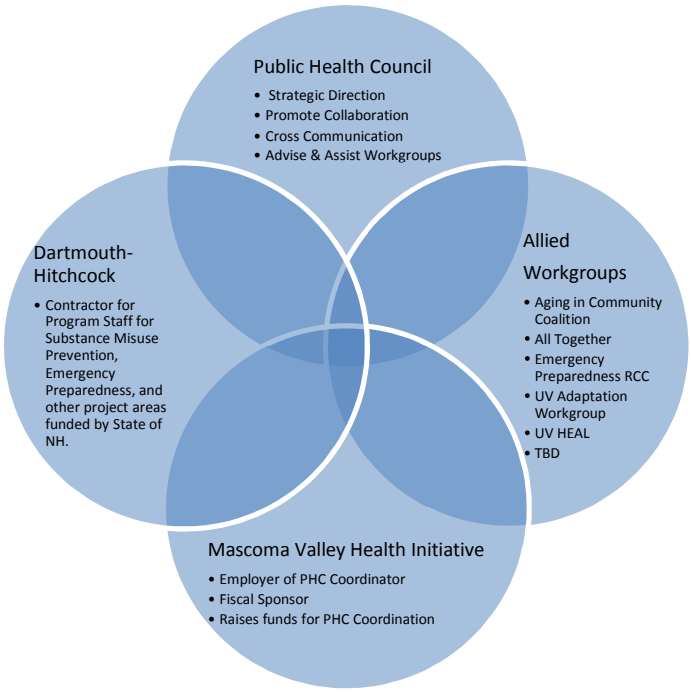
The structure of operations for public health in the Upper Valley is somewhat unique. Dartmouth-Hitchcock Community Health serves as the host agency for the Upper Valley Public Health Region and contractor with the NH Department of Health and Human Services. Through this contract, Dartmouth-Hitchcock Community Health employs staff responsible for overseeing emergency preparedness and substance misuse services. When the NH Department of Health and Human Services awards contracts for public health projects to the public health region, Dartmouth-Hitchcock receives these funds and either carries out the work or awards sub-contracts to appropriate partners within the network.

The **Public Health Council of the Upper Valley** (PHC), our public health advisory council, is housed at the Mascoma Valley Health Initiative. The PHC Coordinator, Alice Ely, works closely with Dartmouth-Hitchcock's team to ensure close collaboration on all PHC priority-related work. Funding to support the PHC comes from municipal appropriations, Dartmouth-Hitchcock, and other foundation and individual gifts. See the chart on the next page for a pictorial description of the Upper Valley Public Health Network.

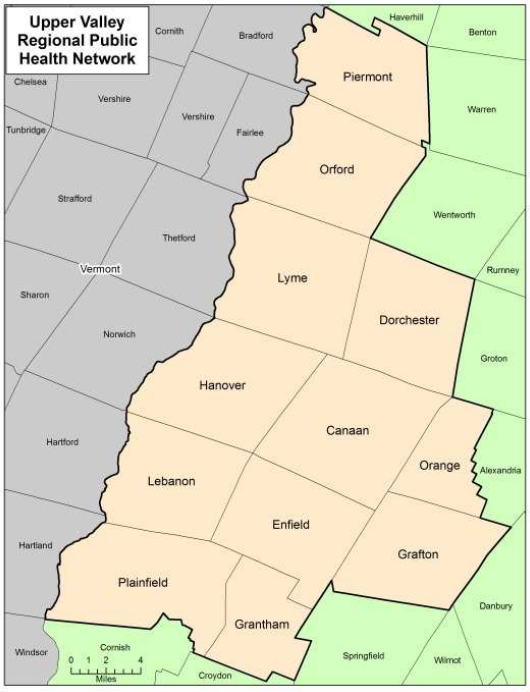
In A Nutshell…

State of NH Terminology	***Upper Valley Equivalent***
Public Health Region	Upper Valley Region (Includes twelve towns: Canaan, Dorchester, Enfield, Grafton, Grantham, Hanover, Lebanon, Lyme, Orange, Orford, Piermont, and Plainfield)
Public Health Network	All members of the Public Health Council. Workgroups allied with the Public Health Council: Aging in Community Coalition, All Together (substance misuse prevention coalition), Emergency Preparedness Regional Coordinating Committee, UV Adaptation Workgroup, UV HEAL, and potentially others.
Host Agency	Dartmouth-Hitchcock Community Health
Public Health Advisory Council	Public Health Council of the Upper Valley (PHC) Mascoma Valley Health Initiative serves as fiscal and administrative sponsor.

Organizational Structure of the Upper Valley Public Health Network



II. Community Profile



The Upper Valley Public Health Region consists of 13 municipalities: Canaan, Cornish, Dorchester, Enfield, Grafton, Grantham, Hanover, Lebanon, Lyme, Orange, Orford, Piermont, and Plainfield.

Overall, the Upper Valley appears to be a very healthy place, and on most indicators of population health, our region compares favorably with New Hampshire and the nation. The Upper Valley has even surpassed some Healthy People 2020 goals.[2] However, these positive measures do not tell the whole story; our research shows that significant disparities in access to health care, health risk factors, and health outcomes exist within the region. These disparities are greatest for the five towns known collectively as the Mascoma Valley (Canaan, Dorchester, Enfield, Grafton, and Orange), as well as the towns of Orford and Piermont.[1]

Rural residents in our region live in the shadow of one of our nation's premiere academic medical centers, Dartmouth-Hitchcock Medical Center, and close to Alice Peck Day Memorial Hospital, an excellent community

[2] Ely AR. *The Upper Valley Community Health Outreach Project.* Rural Health Care Services Outreach Grant Program. Canaan, NH: Mascoma Valley Health Initiative.

hospital providing comprehensive primary care services. Yet often people have difficulty getting needed care and support. Many do not know about services that could help them, or how to find out about them.

Socioeconomic diversity is one of the many factors that stratify our population's access to health care. Among the towns that comprise the Upper Valley, an average of 14.2% of households have an annual income of less than $25,000, ranging from 8.2% of households in Plainfield to 19.4% of households in Grafton.[3] Additionally, an average of 8.5% of Upper Valley residents aged 25 and older have an education level less than a high school diploma. By town, this ranges from 1.5% of Hanover residents over 25 to 18.7 % of Grafton residents.[2]

Towns Served:	
Canaan	Lebanon
Dorchester	Lyme
Enfield	Orange
Grafton	Orford
Grantham	Piermont
Hanover	Plainfield

Health insurance coverage status is also an important measure of access to health care. Uninsured people are less likely to receive preventive health care services, and tend to have worse health outcomes compared with those who have health insurance.[4] Hospital discharge data shows that in 2009, 8% of Upper Valley Public Health Region residents under age 65 lacked any form of health insurance, compared with 9% of that age group statewide.[5] The age group with the highest rate of uninsurance was adults aged 25 to 44, of whom 11% lacked health insurance.[4] Medicaid enrollment may be seen as an indicator of health insurance coverage as well as a proxy indicator of need for support services related to low socioeconomic status. The proportion of the general population in the Mascoma Valley, Orford and Piermont receiving Medicaid services in 2009 ranged from 20 percent to 5 percent. The majority of these Medicaid recipients qualified under the "low-income child" designation.[4]

Rates of ambulatory care sensitive condition (ACSC) hospital discharges are an indicator of access to health care and health care system quality.[6] This indicator tracks a "basket" of chronic and acute health conditions for which outpatient care can prevent the need for hospitalization, or for which early intervention and self-management can prevent complications or more severe disease. In order to maximize the data obtained from the New Hampshire Department of Health and Human Services Hospital Discharge Data Collection System, analysts at the Mascoma Valley Health Initiative examined aggregate data for the years 1996 to 2006. For the purpose of the analysis, they divided the Upper Valley region into five sub-regions: 1) Hanover; 2) Lebanon; 3) Mascoma Valley (Canaan, Dorchester, Enfield, Grafton, and Orange); 4) Lyme, Orford, and Piermont; and 5) Cornish, Grantham, and Plainfield.

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[3] American Community Survey, 2005-2009 Estimates

[4] Kaiser Commission on Medicaid and the Uninsured. "The Uninsured and the Difference Health Insurance Makes." Sept. 2010. Available online at: http://www.kff.org/uninsured/upload/1420-12.pdf

[5] Downs M, Ihejirika E, Ely AR. *The Upper Valley Healthy Community Project Assessment.* Canaan, NH: Mascoma Valley Health Initiative. June 2011.

[6] Agency for Healthcare Research and Quality. *Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions*. Version 3.1; March 12, 2007.

The rate of preventable hospitalizations for chronic conditions in the Mascoma Valley is 69% higher than in Hanover, which has the lowest rate among the five Upper Valley sub-regions. The rate of preventable hospitalizations for acute conditions in the Mascoma Valley is 134% higher than the rate in Hanover.[5] Residents of Lyme, Orford, and Piermont have a 32% higher rate of preventable hospitalizations for chronic conditions, and a 58% higher rate for acute conditions, compared with Hanover residents. A higher rate of preventable hospitalizations shows a significant positive correlation with a greater proportion of households with annual income less than $25,000 (Spearman's rank correlation coefficient (ρ) = 1.0).[5]

Both adults and children living in single-parent households have been shown to be at increased risk for adverse health outcomes.[7,8] As such, single-parent families may be in need of multiple support services and may require more medical care. Several towns in the Upper Valley have a high proportion of children living in single-parent families. Approximately 40% of children in Enfield under 18 years of age are living in single parent households, over 25% in Lyme and Lebanon, and over 20% in Dorchester, Canaan, Grafton, Hanover, Cornish and Orford. Poverty and single-parent household status are also closely related: 85% of Upper Valley children living in poverty are also in single-parent households.[2]

Finally, Youth Risk Behavior Survey (YRBS) data show that unhealthy and unsafe behaviors are generally more prevalent among Mascoma Valley Regional School District and Rivendell Interstate School District students compared with students in the Lebanon School District and Dresden Interstate School District, which also demonstrates a discrepancy of health education and access.[9] The population attending Lebanon High School includes students from Grantham and Plainfield as well as Lebanon, and the population attending Mascoma Valley Regional High School includes students from Canaan, Dorchester, Enfield, Grafton, and Orange. Dresden Interstate School District includes students from Hanover and Lyme, NH, and the Rivendell Interstate School District includes students from Orford, NH. Mascoma and Lebanon students are about as likely as New Hampshire students more generally to have had their first alcoholic drink before age 13, had at least one drink of alcohol on one or more days during the past 30 days, had five or more drinks of alcohol in a row on one or more of the past 30 days, and used marijuana one or more times during the past 30 days.[8] However, alcohol and other substance misuse remains an issue, with about a third of regional high school students reporting alcohol use within the past month and between 10% and 25% reporting marijuana use.[8]

This data demonstrates that the Upper Valley is challenged by discrepancies in access to care, health care outcomes, and health risk factors. The PHC exists because many stakeholders in our region recognize that we have the resources, in many cases, to address our challenges, but we have lacked the capacity to leverage them effectively. The PHC was established to identify a unified set of priorities upon which to base collective action. This Community Health Improvement Plan represents our first effort to articulate specific actions for the next three years. Through this process, we will learn what is working, how we can improve services and coordination, what is new and changing, and what priorities are emerging for the next iteration. In this way, we ensure that our CHIP remains a living, breathing document that reflects the way communities grow and evolve.

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[7] CountyHealthRankings.org. "Family and Social Support." Available online at: http://www.countyhealthrankings.org/health-factors/family-and-social-support

[8] Blackwell DL. National Center for Health Statistics. *Vital Health Stat* 10(246). 2010.

[9] 2009 New Hampshire and Vermont YRBS

III. The Vision and Mission of the Public Health Council of the Upper Valley

Our Vision:

Working together, our Upper Valley community will be healthy, safe, supportive, and vital.

Our Mission:

To improve the health of Upper Valley residents through shared public health initiatives and services within a network of community stakeholders.

How We Operate:

- Listen to community needs;
- Build a shared public health agenda;
- Promote collaborative solutions; and
- Bring support to underserved areas.

IV. Community Health Improvement Planning

The Public Health Council is dedicated to facilitating leadership on regional public health priorities, fostering collaboration to improve effective action, and making sure we know how much has changed. To that end, we need to:

1. Know where we are now;
2. Know where we want to be;
3. Use what resources we have to get there;
4. Build new capacities as needed; and
5. Measure the change and share the information.

The community health improvement planning process, started in late 2014, has been the PHC's approach to getting started. We recognize that needs will change, knowledge about effective strategies will evolve, and our capacities for coordination and collaboration will grow. For these reasons, we understand that this "improvement planning process" will be an ongoing part of our work and that this document represents our best thinking at this point in time.

Who Are We

The PHC consists of an Executive Team, active members and workgroup participants, people who monitor our communications, and people who we disseminate information to as appropriate. We collaborate with several workgroups with varying levels of connection to the PHC and continue to develop partnerships that will help us address priorities in the most effective and efficient manner possible. PHC holds eight meetings each year, which are open to all members, workgroup members, and anyone interested in our work.

Executive Team: At present, our Executive Team is comprised of eleven (11) stakeholders representing hospitals, municipalities, social service providers and others. These members are actively involved in determining the direction of the PHC, approving action plans, participating in workgroups, and promoting our efforts. They are as follows:

- Roberta Berner, Grafton County Senior Citizens Council
- Karen Borgstrom, Dartmouth Partners in Community Wellness
- William Boyle, MVHI Board of Directors
- Nancy DuMont, Alice Peck Day Memorial Hospital
- Suellen Griffin, West Central Behavioral Health
- Julia Griffin, Hanover Town Manager
- Nate Miller, Upper Valley Lake Sunapee Regional Planning Commission
- Gregory Norman, Dartmouth-Hitchcock
- Ellen Prior, Dartmouth-Hitchcock, Tobacco Program
- Michael Samson, Canaan Town Administrator
- Suzanne Stofflet, Upper Valley Region, Granite United Way

Active Members: There are more than 50 people who are active members in the PHC and/or workgroups, attending meetings, providing input, and acting as collaborative partners in our work. They represent various specialty departments within Dartmouth-Hitchcock, municipalities, health and social services, schools, law enforcement and diversion programs, and advocates for behavioral health and developmental disabilities. In addition, there are at least 60 additional people who receive our communications and monitor our work; these people represent businesses, municipalities, service providers, law enforcement, businesses, and faith communities.

Workgroups: Workgroups allied with the PHC include:

- Aging in Community Coalition – A group of resource and support organizations looking to facilitate and streamline communication and information sharing among regional Aging in Community organizations and between the organizations and their many stakeholders. The goal is to develop a unified, community-based strategic plan for Aging in Community in the Upper Valley of New Hampshire and Vermont that will coordinate existing efforts and resources, accelerate collaborative responses to shared needs across communities, and facilitate tailored action that addresses demonstrated community-specific needs.
- All Together (substance misuse prevention coalition) -- ALL Together is an Upper Valley multi-organization collaboration to support the development of healthy, safe, and resilient communities that take action to reduce the impact of alcohol and drug misuse. ALL Together prioritizes implementation of evidence based programs, policies, and practices including community engagement.
- Emergency Preparedness Regional Coordinating Committee -- Public Health Preparedness efforts in the Upper Valley are facilitated by the Regional Coordinating Council (RCC). The RCC sets priorities, provides guidance and resources to accomplish defined goals.
- UV Adaptation Workgroup -- Upper Valley Adaptation Workgroup (UVAW) is a bi-state, multi-stakeholder working group of leaders and partner organizations. Started in December of 2011, the workgroup meets regularly focusing on building climate resilient communities in the Upper Valley Region of Vermont and New Hampshire.

- UV Healthy Eating Active Living Partnership -- UV HEAL is a community partnership that aims to build an Upper Valley community where the healthiest choice becomes the easiest choice for children and adults. UV HEAL's goal is to change the environmental determinants of obesity by linking, supporting, and inspiring action to build a community where it is easy to be healthy.

Other workgroups will develop on an as-needed basis and may be on-going or ad hoc. For example, we are currently working with a group of law enforcement and mental health professionals to increase the availability of Crisis Intervention Team training in the region; this is an ad-hoc workgroup. Also, while the All Together coalition membership provides leadership on suicide prevention issues generally, we may create an ad-hoc workgroup to address specific suicide prevention activities should the need arise.

Where Are We Now (Community Health Assessment)

In the later part of 2013, members of the public health advisory council's interim executive team reviewed relevant needs assessment data from the previous ten year period. The goal was to identify the top health-related issues of concern, particularly those issues that had shown little improvement over time. The thinking was that our purpose, as a collaborative leadership body, was to find new ways to tackle these problems collectively. Reports reviewed included:

- 2012 Upper Valley Community Needs Assessment Report
- 2012 Upper Valley Lake Sunapee Regional Housing Needs Assessment
- 2011 Upper Valley Healthy Community Project (MVHI)
- 2010 Transportation Service Plan for APD Memorial Hospital (UVLSRPC)
- 2008 MVHI Report on Primary Care Needs
- 2008 Upper Valley United Way Assessment
- 2004 Bi-State Coalition Community Needs Assessment

The top health and related issues of concern that were identified in needs assessments from 2004 to 2012 include the following, in no particular order of priority:

- Employment/Income
- Transportation
- Housing Issues
- Tobacco, Alcohol & Other Drug Abuse
- Oral Health
- Mental Health
- Obesity, Nutrition & Physical Activity
- Access to Health Care & Insurance
- Child Care
- Asthma
- Community Supports & Connections (Seniors, Returning Veterans, Criminal Offenders)
- Education
- Injury Prevention

Themes and key points highlighted in the collected needs assessments include the following:

- While the Upper Valley Region mirrors or exceeds the strong health status of the states of NH and VT, there are significant variations in health and well-being between individual communities and residents.[1] These disparities appear to be primarily related to income.[2]
- Projected changes in regional demographics could/will dramatically impact our economy and the demand for services of all kinds.[1, 3]
- Lower income residents have significant challenges with housing, access to health care, and transportation. Housing costs often push them to the edges of our region, making access to jobs, job training, and health care a challenge driven by access to transportation. Another factor is that distance from health care increases the time required to get to and from appointments; time that many working people cannot afford.
- When we talk about affordable housing, we are not talking simply about housing for people living in poverty or unable to work; we are talking about skilled workers in moderate paying jobs who are not able to afford housing in the communities in which they work (e.g., teachers, law enforcement, public services, health services workers). There is a gap between the income level at which a person qualifies for financial assistance and the point at which one can afford to live.[1]
- Access to quality child care is closely linked to income and where one lives. A little more than half of the population in Lebanon, Hanover, and Hartford have access to regulated child care; the percentage in surrounding areas in probably less.[4]
- Adolescents in the Mascoma Valley Regional School District and the Rivendell Interstate School District demonstrate higher levels of negative health risk factors than their peers statewide and in neighboring districts.[2]
- Substance misuse issues include adolescent alcohol and drug use, increases in opioid and prescription medication abuse, and helping elders understand the impact of changing metabolisms on alcohol and medication interactions.

The council began the work of developing a more focused set of priorities from the information above recognizing that results from the 2015 Community Health Needs Assessment, conducted by area hospitals as part of their community benefits requirements, would not be available in time to inform this prioritization. When those results are available, the Public Health Council may revise portions of this plan to reflect new information.

Where Do We Want To Be

Starting in 2014, members of the council came together in five planning meetings to explore issues of concern within the Upper Valley.

Between February and May 2014, the council hosted four membership meetings to explore the nature of our region's greatest health-related needs. An average of 20 people attended each of the meetings, which followed the themes of: Healthy Community, Safe Community, Supportive Community, and Vital Community. Each meeting included a brief presentation on an identified

[1] 2012 UVCNA

[2] 2011 UVHCP

[3] 2012 UVLSHNA

[4] 2008 ACNA

community issue; for example, oral health, sexual and domestic violence, mental health, and aging populations. Members discussed the issues as presented and identified indicators that would demonstrate whether collective action had made a difference.

In June 2014, members gathered again to review the combined lists of indicators, and refine and prioritize them. After working with the Community Health Institute to ensure the indicators were measureable and reliable, council leadership developed a summary document, called the Upper Valley Agenda for Public Health. The Agenda lays out nineteen (19), often inter-connected, priorities for our region. By promoting collective action to address the priority needs and by tracking these indicators, the PHC expects to demonstrate community-based public health improvements.

Upper Valley Agenda for Public Health Priorities

Healthy Community	**Safe Community**
▪ Improve oral health ▪ Decrease substance misuse ▪ Reduce obesity and related illness ▪ Decrease heart disease ▪ Increase cancer prevention ▪ Increase preventative care and access to care	▪ Reduce preventable injuries ▪ Improve community conditions for elders ▪ Decrease incidents of sexual assault and relationship violence ▪ Reduce violent crime ▪ Ensure preparedness for public health emergencies
Supportive Community	**Vital Community**
▪ Reduce adverse childhood experiences ▪ Increase supports for aging in community ▪ Ensure access to behavioral health and substance abuse services ▪ Increase caring response to people with behavioral health and substance abuse concerns	▪ Increase number of people in living-wage, full time jobs ▪ Increase access to affordable and safe housing ▪ Increase transportation options connecting people to jobs, shopping, and services ▪ Increase social capital

Members of the PHC acknowledge that our list of priorities is ambitious and we are not able to work on all of the priorities immediately or simultaneously. Our approach has been to start where there is current momentum, resources, and willing partners. The other priorities remain in the developmental phase as we look for opportunities to bring them to the forefront; these opportunities might include new interest in the topic, new stakeholder activity that provides a foundation to build from, or new funding opportunities.

This community health improvement plan addresses five areas of immediate interest and was developed with significant input from the workgroups or stakeholder groups most involved in the topics.

Misuse of Alcohol and Drugs is included because this issue remains one of the most significant and persistent areas of concern for our region and because significant capacity, resources, and will are in place to drive action. The plan was developed and approved by the members of All Together, our Substance Misuse Prevention Partnership, with the support of Aita V. Romain, SMP Coordinator.

Promoting Healthy Weight is included because this issue is of great concern for our region; significant capacity, resources, and will are in place to drive action; and because our collective impact approach is needed to better align existing resources. The plan was developed with input from

Kristen Coats, Coordinator of Upper Valley Healthy Eating Active Living (UVHEAL); Anna . Adachi-Mejia, Deputy Director, Health Promotion Research Center at Dartmouth; and Deborah K. Doucette, Executive Director, Weight and Wellness Center at Dartmouth.

Oral Health is included because this issue remains one of the most significant and persistent areas of concerns for our region and because we see the link between oral health and other priorities such as substance misuse, mental health, overall health, and economic opportunity. The plan is based on the work of a Dartmouth-Hitchcock, Alice Peck Day Memorial Hospital, Ottauquechee Health Foundation, and Red Logan Dental Health Clinic collaborative effort to assess and improve access to oral health services. During the summer of 2015, consultants conducted an assessment of local providers and service options which informed the resulting plan.[5]

Falls Prevention is the tip of the spear for our work to improve health outcomes for older adults in our community; this is a starting place where resources are available and it provides an opportunity to build partnerships for addressing older adult issues more broadly. Contributors to this plan include Roberta Berner and Jill Vahey of the Grafton County Senior Citizens Council; Ellen Flaherty of the Centers for Health and Aging at Dartmouth; and two members of the NH Falls Task Force: Debra Samaha of the Injury Prevention Center at Dartmouth and Dawna Pidgeon, PT, of the Rehabilitation Medicine Department at Dartmouth-Hitchcock.

Public Health Emergency Preparedness is included because ensuring we can respond to public health emergencies is a foundation for supportive and vital communities. The plan was developed and approved by the Regional Coordinating Council on Emergency Preparedness and the Advisory Board of the Upper Valley Medical Reserve Corps with support from Wes Miller, EP Coordinator.

We will continue to develop improvement plans for remaining priorities on an ongoing basis and are working on numerous projects that will help to cement our role in the region. For example, we do not yet have a plan for mental health related priorities; however, we are doing the following:

- Mental Health First Aid trainings through our region;
- Building capacity for suicide prevention (e.g., Connect Suicide Prevention Training, Connect Suicide Postvention Training, Counseling on Access to Lethal Means);
- Developing regional capacity to deliver Crisis Intervention Training for local law enforcement agencies in collaboration with local Chiefs of Police.

As another example, the PHC is facilitating the development of the Aging in Community Coalition with the goal of generating a comprehensive approach for supporting the growing number of older adults in our region.

[5] 2011 UVHCP

V. Community Priority Areas

As discussed in the preceding section, this plan addresses five of nineteen areas of concern for our Upper Valley region. These were selected for inclusion in this plan based on existing momentum, resources, and willing partnerships; we also see any progress on these issues as a tool for building and strengthening partnerships and demonstrating how the Public Health Council can operate to improve health in our region. As noted above, we are including the following:

1. Misuse of Alcohol and Drugs
2. Promoting Healthy Weight
3. Oral Health
4. Falls Prevention
5. Public Health Emergency Preparedness

The remainder of this plan provides more in-depth information about each of the five public health priority areas. Through community-based processes, PHC members and partners have identified goals and objectives and a strategic approach for each priority area.

Priority Area 1: Misuse of Alcohol and Drugs

Background

NH and VT continue to have some of the highest rates of alcohol and other drug use and binge use when compared with national averages. Misuse of these substances contributes to numerous community and health concerns, including accidental injuries, overdoses, maternal-child health complications, crime, and poor school/work performance. Some estimates suggest that 80+% of inmates in NH prisons suffer from substance use disorders, and a Columbia University study suggested that for every $60 spent addressing the consequences of substance misuse, we are spending only $1 in prevention and treatment. Tobacco use and second-hand smoke remains a leading cause of death in the United States. A recent study suggested that the cost to employers when employees smoke is >$5,800/year.[6]

Currently, between 39% and 37% of youth from regional high schools report having one or more drinks of alcohol in the past 30 days, and between 16% and 23% report binging on alcohol during that time frame.[7] The challenge of addressing youth alcohol use is compounded by public opinion and behavior among adults in our area. Nearly 30% of local adults believe that occasional alcohol use by young people under the age of 21 is acceptable,[8] and 17% of Upper Valley adults report binging on alcohol within the last 30 days.[9] Our region has also identified the misuse of substances other than alcohol, such as tobacco, marijuana and prescription drug use, as areas of concern especially among high school aged youth. Between 7% and 14% of youth from regional high schools report smoking cigarettes within the last 30 days, while between 10% and 25 % of youth report using marijuana in the past month.[2] Both of these figures have remained relatively constant since 2007.[2] The percentage of youth who report misusing prescription drugs within the past 30 days ranges from 4% to 9%.[2] Encouragingly, approximately 90% of high school youth believe that their friends think it is wrong or very wrong for young people to misuse prescription drugs, and only 13% of youth believe that it is easy or very easy to access prescription drugs.[2] While this data suggests that perhaps there is community readiness to decrease youth prescription drug misuse, police, state, and public health officials have been raising concerns recently regarding increased use of heroin in NH, VT, and the Upper Valley region, with the perception that availability of legal prescription opioid medications is a significant contributor to heroin use in the broader population. In 2014 alone, 17 people in Grafton county died due to an opioid related death, which is a 70% increase over the opioid death rate of 2013. Prescription opioid medications/heroin use is also driving a recent trend of more babies being born with Neonatal Abstinence Syndrome, and New Hampshire still has extremely low state investment in prevention and treatment services.[1]

Responding to some these regional challenges, the Lower Grafton County Strategic Plan for 2012-2015 (for substance misuse prevention) focused on increasing perception of risk and reducing social access to reduce substance use and age of onset with a focus on the transition years. Many of the towns in the region were described as creating an ideal environment for young people, but the

[6] Upper Valley Public Health Advisory Council. *Substance Misuse Prevention and Treatment*. Issue brief. N.p.: n.p., 2014. Print. Healthy Community Discussion Section.

[7] 2013 New Hampshire and Vermont YRBS

[8] Upper Valley Drug Free Community Survey for adults, 2015

[9] 2012 Behavior Risk Factor Surveillance System

geographic diversity limited the ability to generalize about the experience of the communities. As described in the 2012-2015 strategic plan, "From the professionals working for Dartmouth College… to the blue-collar workers in Enfield, Canaan, there is a significant economic disparity between the Lower Grafton communities. The presence of college communities in traditionally rural areas has contributed to notable cultural divides – both educationally and economically. Apart from the immediate area around Hanover, most of the towns in the service area have median household incomes significantly lower than the state average. Rural environments can be excellent for youth development, but they also present a unique polarization of risk and protective factors that can both threaten and isolate local youth. While there are inherent benefits to geographically isolated communities, they can provide challenges to positive youth development as well. Among other factors, increased working hours of commuting parents, the transient, unstable nature of tourist-based seasonal economies, and the isolation of insular factors can compromise the health and well-being of residents. One of the biggest challenges this Region faces is that its demographics, culture, diversity, and socio-economic lifestyles are very different."

As a region we have a wealth of resources and engaged providers, institutions, and community members. Our biggest challenge is using our fiscal and human resources in a way that maximizes outcomes. As the Drug Free Communities Coalition works through the assessment phase of the Strategic Prevention Framework, the Regional SMP Network expects to benefit from the data collected on their community survey and pinpoint areas for improvement. We also have an intern doing interviews with community stakeholders to clarify the ideal future goals of the Care Across the Continuum work and another doing an Environmental Scan of alcohol retail shops as a first step to engaging businesses. In the meantime, the SMP Leadership Team is in the process of using the data collected since 2013 to identify strategies for our three year strategic plan. A number of gaps have already been identified including any past targeted work addressing marijuana use. According to the respondents of the 2014 Stakeholder Survey, 31% believed that the community is more accepting of people of any age smoking marijuana than they were a year ago. This as well as the knowledge that at least one of our regional high schools report higher than average rates of driving and riding in a car with an individual after using marijuana makes this an area of high need going forward.

Substance misuse impacts across geography and demographics, but limited access to child-care, transportation, and treatment services can impair the ability of rural residents to access treatment. Individuals needing substance use treatment have often used their financial resources before they are ready to seek treatment, increasing the challenges of financial access to treatment. People with alcohol and drug misuse concerns are also often impacted by behavioral health and trauma concerns; have limited education and employment options; and limited intact social supports.

Looking at the issue of Misuse of Alcohol and Drugs through this lens, the PHC has developed indicators and set targets based on relevant, readily available data. The PHC seeks to decrease the percentage of youth who report alcohol use and binging on alcohol, and reduce the percentage of adults who are accepting of youth alcohol use and who themselves binge drink. Additionally, the PHC hopes to decrease the percentages of high school youth who use marijuana, cigarettes and prescription drugs. Finally, our council will work to decrease the rate of opioid related deaths in our region. Most of these indicators were developed from data in the New Hampshire and Vermont YRBS, supplemented by information from the Behavior Risk Factor Surveillance System and other sources. Our targets were developed by determining community readiness, existing assets, and realistic estimates. Going forward, as the PHC works with All Together to develop strategies around reducing substance misuse, it will be imperative to consider the intersection of financial, geographic and demographic diversity in the Upper Valley region.

Regional Assets

Through All Together, the Upper Valley has many individuals, organizations, and institutions engaged in the work of reducing alcohol and drug misuse. Our region has a wealth of community and family support assets that provide counseling, shelter, crisis intervention and career or daily living support services. Organizations such as Headrest, West Central Behavioral Health, Upper Valley Turning Point and Second Growth, among others, are highly committed stakeholders in this work. We also have partners in health and medical fields, particularly in Dartmouth-Hitchcock OB/GYN, Dartmouth Hitchcock Perinatal Addiction Clinic and Dartmouth-Hitchcock Primary Care. Finally, the Upper Valley had assets in Safety, Law Enforcement and Government agencies. Among these groups, the Valley Court Diversion is highly committed to substance misuse reduction. Additionally, local police departments are increasingly involved in efforts to train their officers in Crisis Intervention programs.

Goals, Objectives and Strategic Approach*

Goal 1	**Decrease the percentage of high school aged youth who report using alcohol in the past 30 days from 33% to 29% by 2019.**
Objective 1	Decrease adult attitudes favorable towards youth alcohol use from 29% to 20%.
Objective 2	Increase the perception among high school aged youth that their friends think it is wrong or very wrong for youth to drink alcohol regularly from 52% to 57%.

Goal 2	**Decrease the percentage of high school aged youth who report binging on alcohol in the past 30 days from 19% to 16% by 2019.**
Objective 1	Decrease the perception among high school aged youth that it is easy or very easy to access alcohol from 54% to 47%.
Objective 2	Increase the perception among high school aged youth that individuals who binge drink alcohol put themselves at risk of harm from 39% to 45%.

Goal 3	**Decrease the percentage of adults who report binging on alcohol in the past 30 days from 17% to 15% by 2019.**
Objective 1	Increase the perception among adults that individuals who binge drink alcohol put themselves at great risk of harm from 58% to 65%.

Goal 4	**Decrease the percentage of high school aged youth who report using marijuana in the past 30 days from 20% to 18% by 2019.**
Objective 1	Increase the percent of high school aged youth who report that their guardians have clear rules and standards for their behavior from 79% to 83%.
Objective 2	Decrease the perception among high school aged youth that it is easy or very easy to access marijuana from 47% to 42%.
Objective 3	Increase the perception among high school aged youth that individuals who use marijuana regularly put themselves at great risk for harm from 30% to 33%.

Goal 5	**Decrease the percentage of high school aged youth who report misusing prescription drugs in the past 30 days from 6% to 4% by 2019.**
Objective 1	Increase the perception among high school aged youth that individuals who misuse prescription drugs put themselves at great risk of harm from 65% to 69%.
Objective 2	Decrease the perception among high school aged youth that it is easy or very easy to access prescription drugs from 14% to 10%.
Objective 3	Increase the perception among high school aged youth that their friends think it is wrong or very wrong for youth to misuse prescription drugs from 88% to 94%.

Goal 6	**Decrease the percentage of high school aged youth who report smoking cigarettes in the past 30 days from 11% to 9% in 2019.**
Objective 1	Increase the perception among high school aged youth that their friends think it is wrong or very wrong for youth to smoke tobacco from 69% to 73%.
Objective 2	Decrease the percentage of adults who report currently smoking tobacco from 15% to 13%.

Goal 7	**Decrease the number of opioid related deaths in Grafton County from 17 (2014) to ≤10.**
Objective 1	Decrease the number of opioid related ER visits in Grafton County from 28 (2014) to ≤24.
Objective 2	Decrease the percentage of among high school aged youth who report using heroin one or more times during their life from 2% to 1%.

[* **Note** that this section of the plan does not include strategies. The SMP plan, with specific strategies, is not due to the NHDHHS, Bureau of Drug and Alcohol Services until October 30, 2015. We are prepared to update this portion of the plan at that time.]

Summary

The PHC, working closely with All Together, will focus on reducing youth misuse of alcohol, marijuana, prescription drugs, and tobacco through a variety of evidence-based strategies. Further, we will work to reduce adult misuse of alcohol. Due to a recent upswing in heroin abuse and heroin-related deaths, we will also place a special focus on reducing heroin use in the region.

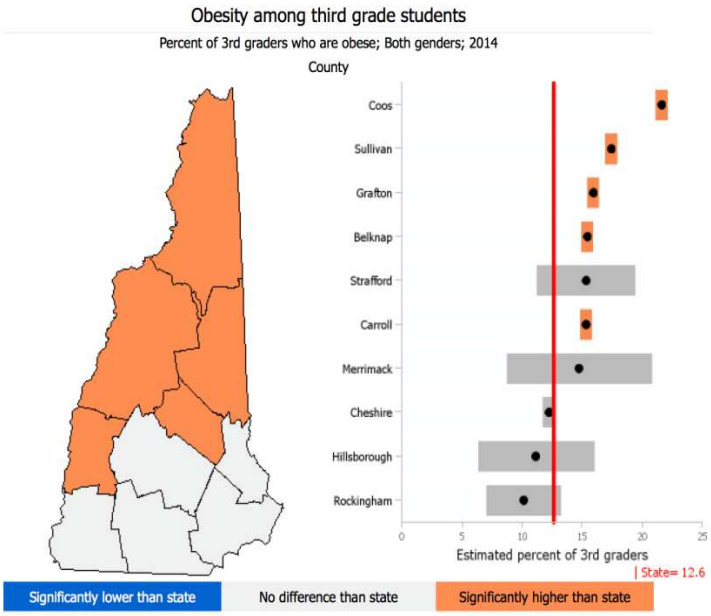
Research shows that perceptions of risk, harm, and disapproval have a measureable impact on people's choices to misuse substances, especially youth. Many of the strategies we will undertake will seek to impact perceptions: youth perceptions of their friends' attitudes; youth and adult perceptions of the risks associated with substance misuse; and youth perceptions of disapproval by adults. Real and perceived access to substances is also closely related to use rates and we will work to 1) reduce access to harmful substances and 2) reduce perceptions that substances are easy to get.

The Upper Valley is fortunate to have strong capacity to plan and implement substance use disorders related strategies. Dartmouth-Hitchcock Community Health dedicates considerable resources to this work. D-H currently hosts the state- supported Substance Misuse Prevention Coordinator and Continuum of Care Facilitator. D-H also hosts the region' Drug Free Communities Support Program Grant. Our All Together coalition continues to expand its partnership and focus to ensure we address the continuum of care for substance use disorders in a coordinated and effective approach.

Priority Area 2: Promoting Healthy Weight

Background

Obesity is a complex health problem that impacts one in four New Hampshire adults (26.2%). Obesity also increases the risk for developing many chronic diseases. The state ranks 35th lowest in the nation for adults who are obese; 15 other states have a lower prevalence of obese adults. However, NH has the second highest obesity rate among the six New England states. Additionally, New Hampshire ranks 19th in the nation for children aged 10-17 years who are obese (15.5%). Obesity during childhood is predictive of obesity later in life, and is of great concern.[10]



Data collected from the *New Hampshire Third Grade Healthy Smiles - Healthy Growth Survey,* conducted between September 2013 and June 2014, found that 28% of third graders were overweight or obese.[11] Childhood obesity increases risk of remaining obese in adulthood[12] and increases risk for many chronic diseases such as asthma, heart disease, stroke, diabetes, and cancer.[4]

Over the past 40 years, rates of obesity have doubled and in some cases tripled in our Upper Valley population, with over 33% of children and over 65% of adults currently considered to be at unhealthy weight, making it a critical issue in the region. Unhealthy weight has powerful effects on health (e.g., heart disease, high blood pressure, various cancers, muscular-skeletal injuries, etc)., with an estimated cost to NH of $320M each year in treatment of avoidable health care problems.[13] In our communities, overweight and its core components, poor diet and sedentary lifestyles, are linked to absenteeism, presenteeism, increases in

[10] Hassan, Margaret Wood, Nicholas Toumpas, Jose Thier Montero, and Lisa Bujno. *New Hampshire State Health Improvement Plan 2013 - 2020*. Rep. N.p.: NH Division of Public Health Services, 2013. Print.

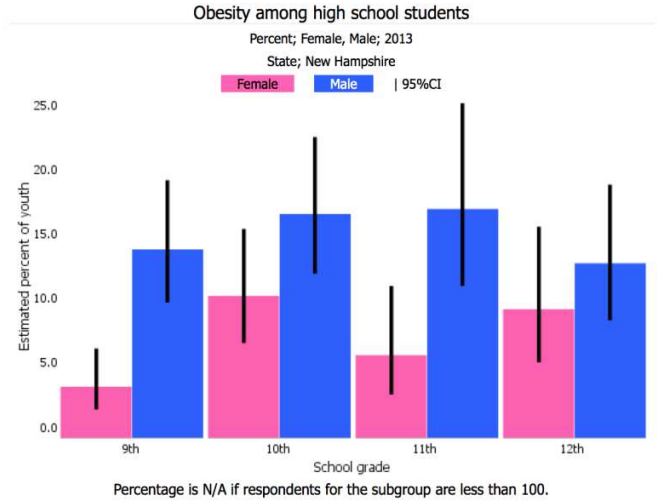
[11] New Hampshire Department of Health and Human Services. 2013-2014 Third Grade Survey. Available from: http://www.dhhs.nh.gov/dphs/nhp/children/documents/ thirdgradeoralhealth.pdf. Accessed on 09/26/2015.

[12] Deshmuhk-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, 40-57.

[4] New Hampshire Department of Health and Human Services. New Hampshire 2007 Diabetes Data. Available from: http:// www.dhhs.state.nh.us/dphs/cdpc/diabetes/documents/ data07.pdf. Accessed on 09/18/2013.

[13] Upper Valley Public Health Advisory Council. *Overweight/Obesity (Healthy Eating and Active Lifestyle)*. Issue brief. N.p.: n.p., 2014. Print. Healthy Community Discussion Section.

health insurance rates, barriers to maximizing learning in schools, socialization challenges, and poor self-image. The Upper Valley parallels the nation and state of NH relative to concerns of obesity and overweight. However, some data suggest that the percentage of our population with unhealthy weight grows as we move from Hanover outward to more rural communities, with 25-40% of children being considered overweight or obese.[5]



Overweight and obesity are very challenging to reverse; a core consideration for our region is to develop healthy lifestyles early, and help youth and young adults maintain healthy behaviors and healthy weight as they age. However, over half of our adult population is already at an unhealthy weight, making it imperative to also target resources towards treatment of overweight and obesity rather than focusing solely on prevention. In our region, we also know that socioeconomic disparities impact a family's access to healthy food options. Due to food insecurity, many low-income families must rely on packaged, processed, or nonperishable grocery items that lack the nutritional balance important for a healthy diet. In the Upper Valley, a crucial step towards improving the weight of both children and adults is addressing the issue of food insecurity.

Looking at the challenge of Promoting Healthy Weight through these frameworks, the PHC developed three indicators relating to healthy weight, and set targets based on relevant, readily available data. First, the PHC hopes to decrease the percentage of third graders considered to be overweight or obese from 31.1% to 29.5%, based on data from the 2013-2014 Healthy Smiles, Health Growth Survey for 3rd grade students and the State recommended decrease of 5%. We also will work to decrease the percentage of adults who are overweight or obese (BMI > 25) from 63.1% to 59.9% based on data from the 2012 NH BRFSS and the State recommended decrease of 5%. Finally, we plan to decrease the percentage of households with food insecurity from 10.4% to 5%. This indicator is based on county level data from the USDA and Census Bureau population survey, and our aspirational target recognizes this indicator as a measure that will positively affect our efforts to decrease the other two.

Regional Assets

Promoting healthy weight requires resources dedicated to increasing healthy eating, to active living, and to reducing food insecurity. In general, the Upper Valley has many organizations and experts focused on these issues. Our greatest challenge is ensuring these organizations coordinate their work and that we identify and close critical gaps.

Upper Valley Health Eating Active Living Partnership (UVHEAL), located at the Children's Hospital at Dartmouth, serves as the central point for the Upper Valley's efforts to promote healthy weight. UVHEAL mobilizes broad-based partnerships of health, public health, education, business,

recreation, and retail providers to move multiple systems at the same time, finding mutually supportive and collaborative strategies. UV HEAL's goal is to change the environmental determinants of obesity by linking, supporting, and inspiring action to build a community where it is easy to be healthy. UVHEAL work has engaged: local schools in improving food offerings and increasing access to water; local restaurants to introduce cueing for healthier food options for children and adults; and our WIC provider to encourage breastfeeding and promote healthy food choices. These are only a few examples of how UVHEAL operates in our region.

UVHEAL works in partnership with numerous organizations, many of whom are also involved in the Public Health Council. Some of these partners in promoting healthy weight include:

Focus on Children

- Children's Hospital at Dartmouth – Promotes 5-2-1-0 and pioneering the concept of Culinary Medicine
- Schools and School Nutrition Programs
- WIC Program, Belknap-Merrimack County Community Action Program

Focus on Adults/Older Adults

- Aging Resource Center at Dartmouth – Educational Programming
- D-H Live Well Work Well – Employee Wellness Programming
- Grafton County Senior Citizens Council – Meals on Wheels, Congregate Meals, exercise programs

Focus on Low Income People/Families

- Listen Community Services – Operates Food Pantries and Community Meals to support low-income and isolated residents of the Upper Valley.
- Upper Valley Haven – Serves low-income individuals and families with food, shelter, education, clothing, and other supports.
- WIC Program, Belknap-Merrimack County Community Action Program
- Willing Hands – Redistributes healthy food, mostly fruits and vegetables, to people in need.

Focus on All of the Above

- D-H Weight and Wellness Center – Providing clinical services for achieving healthy weight and building connections to community resources
- Health Promotion Research Center at Dartmouth – Conducting research to determine effective approaches to achieving health weight
- Municipal Recreation Departments
- Upper Valley Lake Sunapee Regional Planning Commission – Supporting community readiness assessments for safe and affordable physical activity;
- Upper Valley Recreation Association – Promoting walking programs and safe and affordable physical Activity

Commitment to addressing obesity in the Upper Valley is high among all organizations listed above. Knowledge about what to do is similarly high. Each of these organizations is activity engaged in carrying out the work they are funded to perform. Interest in collaborating to increase our impact is moderately high, largely because these organizations are not all in the position to go beyond their

core services to try new and unfunded projects. The PHC is proposing a set of strategies that will allow us to build upon the work already in place and find resources to invest in expansion. Our focus will be on spreading best practices throughout our region and finding ways to fill gaps in service.

Goals, Objectives and Strategic Approach

Goal 1	**Reduce obesity and overweight in children and adults in the Upper Valley.**
Objective 1	**Reduce the percentage of children that are overweight and obese from 31% (Grafton County) to 29% by 2020.**
STRATEGIC APPROACH Strategy 1: Improve school and childcare nutrition environments. Strategy 2: Improve nutrition environments in non-school public settings. Strategy 3: Increase access to safe and affordable physical activity in the built environment. Strategy 4: Increase pediatric screening and coaching regarding healthy diet, weight and physical activity.	
Objective 2	**Reduce the percentage of adults that are overweight and obese from 63% to 59% by 2020.**
STRATEGIC APPROACH Strategy 1: Improve nutrition environments in worksites and restaurants. Strategy 2: Educate low income populations in strategies for sustainable and healthy food use. Strategy 3: Increase access to safe and affordable physical activity in the built environment.	
Objective 3	**Reduce household food insecurity from 10% to 5% by 2020.**
STRATEGIC APPROACH Strategy 1: Educate low income populations in strategies for sustainable and healthy food use. Strategy 2: Increase access to and affordability of healthy food in all communities.	

Summary

Over the next one to three years, we will continue to look to UVHEAL to provide leadership on strategies to promote healthy weight in the Upper Valley. Our first steps will involve working through UVHEAL to more fully engage partners capable of taking on the strategies included in this plan. UVHEAL's efforts around school, childcare, institutional, and restaurant food environments is well-established. Our goal will be to replicate these efforts in other communities throughout our region.

The Dartmouth-Hitchcock Weight and Wellness Center is a new and developing program which seeks to provide the most effective clinical treatment for individuals with weight concerns. They also want to connect patients to resources and supports in the community which can increase the

chances of clinical success. The Weight and Wellness Center has reached out to the PHC to help determine what resources are available. One of our short term goals is to assist the Weight and Wellness Center in this effort; the secondary benefit will be to develop a better understanding of what is not available in our communities.

Several partner organizations are dedicated to reducing food insecurity, which is a risk factor for less healthy food choices. The PHC will work with the Upper Valley Haven, Willing Hands, senior centers, and local food banks to promote effective education and support for healthy food selection and preparation.

The Upper Valley Lake Sunapee Regional Planning Commission has begun to offer Community Readiness Assessments to communities wishing to explore increasing access to safe and affordable physical activity. We expect to continue offering these assessments to more communities and hope to continue offering mini-grants to allow communities to begin implementing changes.

Finally, Dartmouth Pediatrics is engaged in several efforts to increase screening and patient education. The PHC will look for opportunities to partner with Dartmouth Pediatrics to connect provider and community-based initiatives together for greater leverage.

In general, PHC strategies for promoting healthy weight focus on bringing partners together to increase collaboration. We have so many resources in place; however, we find these resources are not as well coordinated as they could be.

Priority Area 3: Oral Health

Background

National attention has been focused on oral health since 2000, when then US Surgeon General David Satcher described dental disease as a "silent epidemic." A decade later, the "Healthy People 2020" report included oral health as a leading health indicator for the first time, and in 2011, the IOM published two reports illustrating that lack of access to dental care continued to be problematic for millions of Americans.[1] While oral disease cuts across all demographics, low-income Americans of any age are far more likely to suffer from poor dental health, for a variety of reasons: the high costs of care, lack of an adequate workforce in rural and underserved areas, language and cultural barriers, transportation challenges and work or childcare barriers to accessing care. Of particular concern is the steady decline in dental care utilization among working-age adults from 2003 through 2011; this trend is occurring regardless of dental benefits status and income level, according to a 2013 ADA report.[1] Across the lifespan, poor oral health is related to decreased well-being and quality of life: diet, nutrition, sleep, psychological status, social interaction, school and work are affected by impaired oral health.[1]

Access to oral health care for the region's low-income, underserved populations has been a recurring theme of community health assessments as far back as 1994, when the Red Logan Dental Clinic was established in response to the recognition that the Upper Valley oral health safety net was inadequate, particularly for adults. In 2003, 2008 and most recently in 2012, stakeholders have identified poor oral health as a leading regional need. Data provided by the APD Upper Valley Smiles school dental program for 2012-13 underscores the health disparity experienced by low-income children who lack a dental home: 29% of the screened children were found to have untreated decay. The statewide average across all NH schools is 12%.[1] Uninsured adults with severe dental pain and/or infection often arrive at hospital emergency departments, only to be prescribed antibiotics and/or pain medications, usually narcotics, and told to find a dentist to take care of their mouth. The Alice Peck Day Memorial Hospital emergency room sees three to five adults per week who are in this no-win situation, many of whom simply come back weeks later when the medications are gone and the problem has returned. The Red Logan Dental Clinic has a wait list of several hundred, and does not handle emergencies. With the erosion of full-time jobs offering medical and dental insurance, the numbers of Upper Valley adults who cannot access dental care is creating our own version of the "silent epidemic," compounded now by the growing numbers of opiate-addicted individuals whose requests for narcotics due to dental pain create an additional burden on emergency room and primary care providers.

Although cost is certainly a key factor limiting access to dental care for uninsured adults and children, it must be acknowledged that transportation barriers and simply the inability for parents to take time off from work to get to a daytime dental appointment can pose as great a barrier. And as alluded to above, there appears to be a growing linkage between the narcotics explosion and unmet dental needs. Although there is no shortage of dentists in Lebanon, Hanover or Hartford, and

[1] Upper Valley Public Health Advisory Council. *Oral Health.* Issue brief. N.p.: 2014. Print. Healthy Community Discussion Section.

among them several who are accepting new pediatric Medicaid patients, there is nonetheless a significant access barrier for the more rural residents of the region.

In the Upper Valley, we believe that it is important to treat the community wide "silent epidemic" of dental disease through both preventative and restorative measures. As such, our council has developed two indicators; one monitors the oral health of children, and another that tracks the use of oral health care by adults. We hope to decrease the percentage of third grade children with untreated dental care from 11.7% to 11% as reported by the Healthy Smiles, Healthy Growth Survey for 3rd grade students conducted by school based programs. Additionally, our council hopes to decrease the percentage of adults who have not had a dental visit in the past two years from 9.9% to 9.4% as reported on the New Hampshire Behavior Risk Factor Surveillance System.

Regional Assets

The Upper Valley Region is served by at least twenty-five (25) dental practices. According to a survey conducted in 2011, only ten of these practices were accepting new Medicaid patients, either children or adults; two practices reported they would see Medicaid patients for emergency services.[2] More recently, while some dentists indicate they quietly serve many uninsured individuals at reduced or no cost, the number of dentists openly accepting new Medicaid patients has dropped.

The Upper Valley benefits from several programs that provide preventive dental care to people without Medicaid or other coverage. These include the long-standing Red Logan Dental Clinic, which provides free restorative care for adults; however, these services are provided on a first come, first served basis and the waitlist can be several hundred people long. Also, Red Logan does not provide emergency care. Alice Peck Day Memorial Hospital supports the Upper Valley SMILES program, which provides school-based screening, oral health education, fluoride varnish, sealants and referrals to dental offices for restorative care. Upper Valley SMILES currently operates in Canaan, Enfield, and Lebanon elementary schools. The WIC clinic in the Upper Valley also implements a version of Upper Valley SMILES, offering early screening, education, and fluoride varnish to younger children. Finally, the Ottauquechee Health Foundation, in partnership with Alice Peck Day Memorial Hospital and Dartmouth-Hitchcock, recently launched Senior Smiles, a pilot project to place a Public Health Dental Hygienist in Senior Centers for community-based, free clinics. We expect to pilot this service model in New Hampshire locations within the next year.

Dartmouth-Hitchcock Pediatrics is contributing to our resources for increasing oral health care by providing training in and promoting the practice of applying fluoride varnish as part of well visit care in its Lebanon clinic.

Local hospitals in the Upper Valley region have demonstrated a high degree of commitment and readiness to improve oral health care because they recognize the high cost of emergency room visits for oral health emergencies, the difficulty of referrals for care, and the impact on the health and well-being for people with untreated oral health concerns. The Red Logan Dental Clinic is very willing to collaborate to improve oral health care in the region but has limited capacity to grow as it relies upon volunteer dentists. We are confident that as our capacity to place Public Health Dental

[2] 2011 UVHCP

Hygienists in community settings grows, we will have willing partners to host these clinics. As is often the case, funding limits our ability to capitalize on the willingness of our partners; however, we continue to look for opportunities to move our plan forward.

Goals, Objectives and Strategic Approach

Goal 1	**Reduce the number of children with untreated oral health needs.**
Objective 1	Reduce the percentage of 3rd graders with untreated decay from 11.7% to 11% by 2017. (measured via 3rd grade UV SMILES data)
STRATEGIC APPROACH Strategy 1: Increase the number of regional pediatric health care providers who routinely use fluoride varnish as part of well care. Strategy 2: Maintain or increase the number of oral health screenings available at schools and WIC clinics or other early childhood locations serving vulnerable populations and increase the use of temporary restorative care in these settings. Strategy 3: Increase the availability of mobile dental services in partnership with school-based oral health programs. Strategy 4:	
Goal 2	**Reduce the number of adults with crisis oral health needs.**
Objective 1	Reduce emergency room visits for preventable oral health conditions from >350 to <300 by 2017.
STRATEGIC APPROACH Strategy 1: Continue exploratory planning to establish a dental residency aligned with the Harvard School of Dentistry at the VA Medical Center in White River Junction, VT, that includes rotations providing community-based dental care for lower-income populations. Strategy 2: Increase the number of volunteer dentists or paid dentist capacity at Red Logan Dental Clinic. Strategy 3: Deploy a Public Health Dental Hygienist to community settings where high-needs populations already congregate, such as senior centers, substance use treatment facilities, financial assistance services, and worksites with high numbers of lower-income, uninsured individuals. Strategy 4: Explore possibilities for increasing dental care associated with the planned Mascoma Health Care Clinic	

Summary

The Upper Valley region already has a strong school-based oral health program, Upper Valley SMILES. This program provides screening, oral health education, fluoride varnish, sealants and referrals to dental offices for restorative care. Our plan is to continue expanding these programs to

additional schools, with the addition of new practices including temporary restorative care and access to mobile dental services to serve children needing major restorative care. We plan continued or increased oral health screenings in WIC clinics and increased use of fluoride varnish as part of pediatric well care.

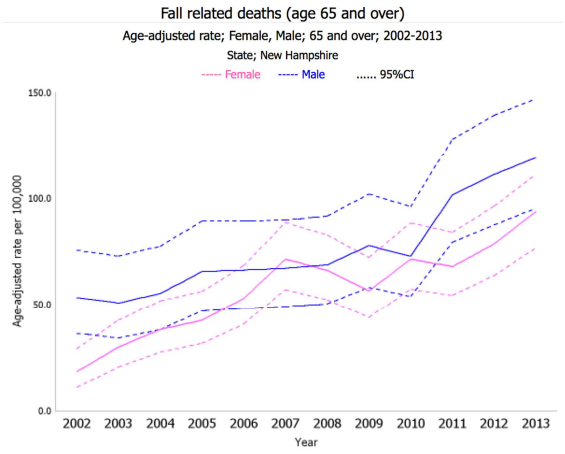
For adults, our plan is to increase the region's capacity to deliver free or low cost care. This includes growing the dental health care workforce, for example, by pursuing a regional dental residency program or through attracting more dental externs, thus increasing resources dedicated to serving low-income populations. We will also work toward deploying resources to provide preventive care and referral services to populations that currently do not seek care due to cost or geographic barriers, which we believe will allow us to make referrals to care before problems escalate to the point where residents seek emergency services.

Priority Area 4: Falls Prevention

Background

Every 15 seconds, an older adult is seen in a US emergency department for a fall-related injury. In New Hampshire, injuries are seen in the emergency department at a rate of 4,622.8 per 100,000 people, which mirrors the national rate.[1] Falls are the leading cause of both fatal and non-fatal injuries for New Hampshire residents 65 and older, with the oldest (85+) having almost twice as many fall-related injuries as those 65–69, associated with 2–5 times greater healthcare cost.[2] Approximately 105 older Granite Staters die every year because of a fall, and this rate has remained stagnant over the past 10 years.[3] Twenty to 30 percent of older adults who fall sustain moderate to serious injuries such as hip fractures and traumatic brain injuries, and these injuries can make it impossible to live independently and are associated with functional decline leading to an early death.[3] Among older adults living in the community, falls can be a strong predictor of placement in a nursing home.[3] However, falls are not an inevitable consequence of aging; they can be prevented, and the PHC plans to implement measures that will reduce the risk of falling for elders in our communities.[3]

Additionally, falls are very costly. In 2009 in New Hampshire, the total approximate cost for emergency and inpatient hospital visits due to older adult falls was $105.6 million dollars.[3] Most of these costs are borne by Medicare and Medicaid. Between 2005 and 2009, the average cost for a fall-related emergency department visit was $1,959 per patient and $25,047 for an inpatient stay.[3] Hospital fees may include treatment for other chronic diseases, like diabetes or heart disease, which are often co-occurring conditions in the older adult and may hinder their road to recovering.



NH is one of the oldest states, and by 2030 it will have the second-largest proportion of persons ≥85 years in the country.[2] Using data on fall-related hospital visits and mortality specific to NH residents aged ≥65, we can already see the realities of an increasingly large elder population. In 2000, 5,253 women and 3,157 men per 100,000 population aged ≥65 visited a hospital due to a fall-related injury; in 2009, 6,370 women and 4,342 men per 100,000 made such visits.[2] Over the past decade, the death rate for person's ≥65 due to fall-related injuries has also dramatically increased: in 2002, 20 women and 47 men per 100,000 population experienced fall-related deaths, while in 2013 109 women and 99 men per

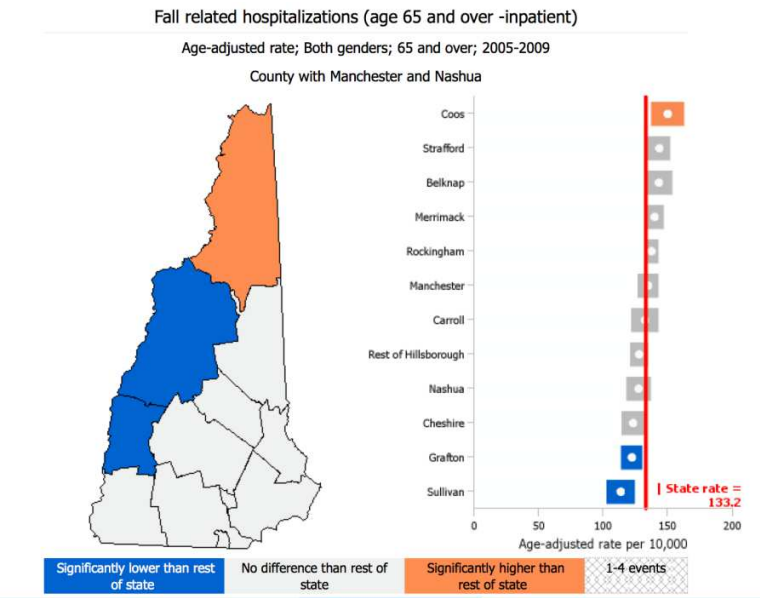
[1] *Injuries in the State of New Hampshire 2001-2009*, http://www. dhhs.nh.gov/dphs/bchs/mch/documents/nh-injuries-2001- 2009-report.pdf accessed August 2, 2013.

[2] *Narrative Falls Grant*. Rep. N.p.: Dartmouth Centers for Health and Aging, 2014. Print.

[3] Hassan, Margaret Wood, Nicholas Toumpas, Jose Thier Montero, and Lisa Bujno. *New Hampshire State Health Improvement Plan 2013 - 2020*. Rep. N.p.: NH Division of Public Health Services, 2013. Print.

100,000 died from fall-related injuries.[2] Our assessment shows that in the past decade fall-related hospitalizations (associated with rising Medicare costs) have increased by 27% and excess mortality due to fall-related injuries has more than doubled. Thus, despite efforts to improve screening and provide falls prevention programs in NH, the impact of falls among older adults has dramatically increased.

As the older adult population of the Upper Valley increases parallel to the rest of the state, it is clear that reducing older adult falls is a critical priority for our region. Fall related deaths are significantly higher in the Lebanon hospital service area than in the rest of the state, however, the rate of Emergency Department visits for falls related injuries was lowest in the state in the Lebanon region.[4] This dichotomy serves as a reminder that, for our region, addressing older adult falls is not simply the responsibility of hospitals and medical care providers, but is instead an issue that must be tackled by the many service organizations that interact with elders. Additionally, in the Upper Valley, 64% of EMS calls for patients 65 and older were to patient's home, and in 88% of these calls, a fall was the mechanism of injury. Because of this, the PHC and community leaders feel that it is imperative to make homes, as well as communities, safer for aging adults.



Though our measures to address older adult falls necessarily rely on social service and community organizations, our council's indicators also must rely on available data. As such, one of our goals is to increase the availability of evidenced based falls prevention programs. In addition, the PHC plans to monitor our progress in reducing older adult falls by tracking the rate of Emergency Department visits and observation stays for injury due to falls, per 100,000 population, using data drawn from New Hampshire HealthWRQS. We hope to reduce the rate of Emergency Department Visits and observation stays for falls injuries by 10%, as recommended by Healthy People 2020, which will decrease the rate of "falls visits" from 3,397 to 3,057 per 100,000 for those aged 75 to 84, and from 5,725 to 5,152 per 100,00 for those aged 85 and older.

Regional Assets

The Upper Valley has numerous assets to bring to bear on falls reduction and all are willing to work together to achieve this goal. Partners who bring expertise in best practice strategies such as screening and referral and falls prevention programs include the Injury Prevention Center at Dartmouth, and Rehabilitative Medicine and the Centers for Health and Aging, both at Dartmouth-Hitchcock. Representatives of these programs are also associated with the NH Falls Task Force,

[4] *Older Adult Falls Data Brief.* Issue brief. N.p.: Upper Valley Public Health Council, 2015. Print.

giving us access to the state's best thinking on the issue. We also work in close partnership with the Grafton County Senior Citizens Council (GCSCC), which has trained Matter of Balance program leaders and facilities where programs can be offered. In addition, the GCSCC has a network of volunteers who may participate in these programs as lay leaders and advocates. Finally, the PHC includes many municipal leaders and recreation departments, who may also be able to support falls reduction programs by providing leaders and/or facilities.

The Upper Valley has a history of providing both of the falls reduction programs proposed in this plan: Matter of Balance (MOB) and Tai Ji Quan: Moving for Better Balance (TJQ:MBB). Currently the Upper Valley has two (2) certified trainers for MOB and runs programs several times per year. There is one (1) certified TJQ:MBB and programs run in two locations. Our plan is to increase capacity for these programs so they can run continuously throughout the region.

Goals, Objectives and Strategic Approach

Goal 1	**Increase regional capacity to provide evidence-based falls prevention programs to ensure continuous programming by 2017.**
Objective 1	Increase the number of Matter of Balance Instructors and Lay Leaders in the Upper Valley by 2017.
STRATEGIC APPROACH Strategy 1: Collaborate with RSVP to recruit Lay Leaders and establish an organizational home for MOB in the Upper Valley. Strategy 2: Recruit Instructors and Lay Leaders through recreation departments, emergency medical personnel, and local businesses.	
Objective 2	Increase the number of Tai Ji Quan: Moving for Better Balance certified instructors in the Upper Valley by 2017.
STRATEGIC APPROACH Strategy 1: Collaborate with RSVP to establish an organizational home for TJQ:MBB in the Upper Valley. Strategy 2: Work with D-H programs to increase access to trained instructors.	
Objective 3	Establish program sites in Canaan, Orford, and Lebanon to ensure availability throughout the region.

Goal 2	**Reduce the rate of older adult falls by 10% by 2020.**
Objective 1	Increase the number of older adults who complete a falls prevention program.
STRATEGIC APPROACH Strategy 1: Run MOB and TJQ:MBB on a rotating basis at Canaan, Orford, and Lebanon sites. Strategy 2: Market MOB and TJQ:MBB programs to older adults.	
Objective 2	Increase the percentage of older adults that are screened for falls in regular primary care visits.
STRATEGIC APPROACH Strategy1: Increase health care provider rates of screening and referral for fall risk as measured by EMR notations by collaborating with Dartmouth-Hitchcock Aging Resource Center and NH Falls Task Force to encourage screening and follow-through. Strategy 2: Increase the number of older adults screening positive for fall risk who are referred to a falls prevention program. Strategy 3: Increase the number of older adults screening positive for fall risk who complete a falls prevention program.	

Summary

For older adults, an injury from a fall may contribute to other health problems, erode the person's confidence, and decrease their ability to cope independently. Evidence-based programs that reduce the risk of falls by increasing confidence and/or strength and balance can help older adults maintain their health, well-being, and independence. The challenges we face in making these programs available include the frequency and proximity of the programs as well as provider screening and referral practices. Over the next one to three years, the PHC will work with our partners to increase the availability of these programs throughout the region. We will also work with providers to increase referral practices.

The Public Health Council has a larger goal relative to responding to the needs of older adults and improving community supports to enable older adults to live as independently as possible. This falls prevention initiative will be a portion of this larger effort.

Priority Area 5: Public Health Emergency Preparedness

Background

In 2011, the US Centers for Disease Control and Prevention (CDC) released the *Public Health Preparedness (PHEP) Capabilities: National Standards for State and Local Planning.* In 2012, the Office of the Assistant Secretary for Preparedness and Response (ASPR) released the *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness*. These guidance documents define a standard set of capabilities which jurisdictions should build and sustain to best respond to health emergencies. Both of these documents highlight the importance of working collaboratively to assess and mitigate risks to the public health and health care systems from likely hazards as a foundational element of emergency planning. Both documents include conducting an inclusive Hazard Vulnerability Assessment (HVA) as a key activity.

Three Public Health Preparedness goals are defined in this document: 1) Strengthen community Preparedness in the Upper Valley, 2) Provide effective public information and warning in the event of an emergency and 3) Effectively support the Upper Valley during mass care events. These goals, along with the associated 4 objectives and 11 directive strategies resulted, in part, from the Upper Valley Hazard Vulnerability Analysis (HVA) performed in the spring of 2015.

The purpose of the HVA was to assess the potential impact of hazards on the health care, behavioral health, and public health systems and to identify risk mitigation strategies that could reduce hazard impacts. This HVA built upon and complemented existing hazard mitigation planning efforts in the emergency management and health care sectors. Participants in the HVA process rated the severity of impact of a preselected set of hazards and the Upper Valley region's degree of preparedness to respond to these impacts based on the *Public Health Preparedness (PHEP) Capabilities: National Standards for State and Local Planning* and the *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness.*

The participants in the Upper Valley HVA included experts from the health care, behavioral health, public health, emergency management, and social sectors with a role in emergency preparedness, response, and recovery. Specifically, participants included representatives from:

- Dartmouth-Hitchcock
- Dartmouth-Hitchcock Leadership Preventative Medicine
- Public Health Council of the Upper Valley
- Town of Enfield
- Town of Lebanon Fire Department
- Town of Lyme
- Town of Lyme School District
- Town of Hanover

- Town of Hanover Fire Department
- Upper Valley Lake Sunapee Regional Planning Commission
- Upper Valley Public Health Network
- West Central Behavioral Health
- White River Junction VA Medical Center

Risk scores for specific hazards were developed based on participant knowledge and subject matter expert input. The following data resulted from the first day of the HVA workshop.

Hazard	1 Severity of Impact – Rank Order	2 Hazard Probability	3 Risk Score - Rank Order
Flooding	3	4 (High)	7
Hurricane	4	2 (Low)	6
Winter Storm	2	3 (Medium)	5
Radiological Emergency	7	1 (Very low)	4
Earthquake	6	1 (Very low)	3
Influenza Pandemic	5	1 (Very low)	2
Heat Wave	1	2 (Low)	1

[1] The higher the rank reported in columns 1 and 3, the higher the severity of impact and risk respectively.

During day two of the HVA workshop, participants reviewed the risk scores and discussed global actions and strategies which would have significant impact on multiple hazard type response facets. This approach, rather than discussing actions specific only to one type of hazard response, will allow the Upper Valley to be better prepared for a broader array of potential hazards.

Regional Assets

Public Health Preparedness efforts in the Upper Valley are facilitated by the Regional Coordinating Council (RCC). The RCC sets priorities, provides guidance and resources to accomplish defined goals. The RCC member organizations themselves provide the most significant resource base available. This comes in the form of both knowledge and physical resources. Members of the Upper Valley RCC include, but are not limited to: Fire, Police, EMS, behavioral health, school supervisory union, Red Cross, Dartmouth Hitchcock Medical Center, Alice Peck Day Hospital, Mt, Ascutney Hospital, White River Junction VA Medical Center, long term care, Upper Valley Medical Reserve Corps and Upper Valley Strong representatives. The region's Public Health Emergency Preparedness Coordinator also maintains an extensive inventory of medical and sheltering supplies to support Alternate Care Site, Point of Dispensing, and Medical Reserve Corps activities.

Goals, Objectives and Strategic Approach

Goal 1	**Strengthen community preparedness in the Upper Valley.**
Objective 1	Engage with community organizations to integrate public health, medical and mental/behavioral health networks into community preparedness planning.
STRATEGIC APPROACH Strategy 1: Identify key stakeholders in the community that are not yet engaged in the emergency preparedness planning process. Strategy 2: Engage key stakeholders in existing emergency preparedness work. Strategy 3: Implement strategies to develop and sustain the engagement of the community.	
Objective 2	Effectively respond to the needs of at-risk populations in the event of an emergency.
STRATEGIC APPROACH Strategy 1: Evaluate methodologies for the pre-identification of at-risk populations. Strategy 2: Identify the response needs of at-risk populations. Strategy 3: Identify and develop contact methodologies for at-risk populations.	

Goal 2	**Provide effective public information and warnings in the event of an emergency.**
Objective 1	Enhance ability to direct public information and warnings to effected populations.
STRATEGIC APPROACH Strategy 1: Evaluate the current capabilities and potential gaps in existing communication methodologies. Strategy 2: Identify and develop contact methodologies for at-risk populations.	

Goal 3	**Effectively support the Upper Valley during Mass Care Events.**
Objective 1	Develop local and regional shelter capacity for Mass Care Events.
STRATEGIC APPROACH Strategy 1: Conduct municipal surveys to identify and categorize current shelter capacities in the Upper Valley. Strategy 2: Collaborate with local partners to develop sheltering plans for individuals with special medical needs. Strategy 3: Develop relationships for asset sharing to meet local shelter needs.	

Summary

The Upper Valley has a well-developed Emergency Preparedness program, with strong leadership, engaged partners, and material resources to respond to emergencies. Through the Hazard Vulnerability Assessment process, members of the Regional Coordinating Committee (RCC) reviewed potential threats and looked for the gaps in our ability to respond. Based on this assessment, the RCC identified the need to better understand where vulnerable people were in the event of an emergency and what they needed. The RCC also identified the need to broaden partnerships in the community to ensure the ability to address the needs of vulnerable populations. Finally, the RCC determined that we should build our volunteer base (e.g., Medical Reserve Corps) to increase our ability to respond and to support other efforts such as community recovery. Over the next one to three years, we expect to undertake multiple outreach and training activities to accomplish these goals.