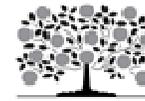




2015

*Community Input on Health Issues and Priorities, Selected  
Service Area Demographics and Health Status Indicators*





ALICE PECK DAY  
MEMORIAL HOSPITAL

**Dartmouth-Hitchcock and Alice Peck Day Memorial Hospital**  
**Community Health Needs Assessment**  
**November 30, 2015**

***Community Input on Health Issues and Priorities,  
Selected Service Area Demographics and Health Status Indicators***

Please direct comments or questions to:

Director, Community Health Improvement  
Dartmouth-Hitchcock Medical Center  
One Medical Center Drive, Lebanon, NH 03756  
(603) 650 4068

Director of Community Health  
Alice Peck Day Memorial Hospital  
10 Alice Peck Day Drive, Lebanon NH 03766  
(603) 443 9548

Technical Assistance for this report was provided by the Community Health Institute/JSI



**Dartmouth-Hitchcock and Alice Peck Day Memorial Hospital  
Community Health Needs Assessment  
November 30, 2015**

**Table of Contents**

	<b>Page</b>
<b>EXECUTIVE SUMMARY</b>	<b>2</b>
<b>A. COMMUNITY SURVEY RESULTS WITH SELECTED SERVICE AREA DEMOGRAPHICS</b>	<b>5</b>
<b>1. Most Important Community Health Issues Identified by Survey Respondents</b>	<b>9</b>
<b>2. Barriers to Services Identified by Survey Respondents</b>	<b>14</b>
<b>3. Community Health Resources Needing More Attention</b>	<b>19</b>
<b>B. KEY STAKEHOLDER SURVEY</b>	<b>23</b>
<b>C. COMMUNITY HEALTH DISCUSSION GROUPS</b>	<b>26</b>
<b>1. Discussion Group Themes</b>	<b>28</b>
<b>2. High Priority Issues from Discussion Groups</b>	<b>27</b>
<b>D. COMMUNITY HEALTH STATUS INDICATORS</b>	<b>30</b>
<b>1. Demographics and Social Determinants of Health</b>	<b>30</b>
<b>2. Health Promotion and Disease Prevention</b>	<b>37</b>
<b>3. Illness and Injury</b>	<b>53</b>
<b>4. Access to Care</b>	<b>68</b>
<b>E. SUMMARY OF COMMUNITY HEALTH NEEDS ISSUES</b>	<b>72</b>
<b>APPENDICES (see separate document): Complete Community and Key Stakeholder Survey Results, Discussion Group Summaries, Existing Community Health Resources and Facilities</b>	

**Dartmouth-Hitchcock and Alice Peck Day Memorial Hospital**  
**Community Health Needs Assessment**  
**November 30, 2015**

**EXECUTIVE SUMMARY**

During the period March through July, 2015, a Community Health Needs Assessment in the Valley Regional Hospital service area of New Hampshire was conducted by Dartmouth-Hitchcock and Alice Peck Day Memorial Hospital in partnership with New London Hospital, Valley Regional Hospital, and Mt. Ascutney Hospital and Health Center. The purpose of the assessment was to identify community health concerns, priorities and opportunities for community health and health care delivery systems improvement. While Dartmouth-Hitchcock Medical Center serves as a tertiary referral medical center for a large, multi-state area, the geographic area of interest for the purposes of this assessment was the primary service area of Dartmouth-Hitchcock and Alice Peck Day Memorial Hospital. This primary service area was defined as 19 municipalities comprising the 'Upper Valley' of New Hampshire and Vermont with a total resident population of approximately 70,000 people. Methods employed in the assessment included a survey of area residents made available through direct mail and website links, a survey of key community stakeholders who are agency, municipal or community leaders, a series of community discussion groups convened in the primary service area, and a review of available population demographics and health status indicators. The table on the next page provides a summary of high priority community health needs and issues identified through these assessment methods.

**SUMMARY OF COMMUNITY HEALTH NEEDS AND ISSUES BY INFORMATION SOURCE**

<b>Community Health Issue</b>	<b>Community and Key Leader Surveys</b>	<b>Community Discussion Groups</b>	<b>Community Health Status Indicators</b>
<b>Access to mental health care</b>	Selected as the highest priority issue by community leaders; second highest issue identified by community survey respondents; about 8% of community respondents indicated difficulty accessing mental health services in the past year	Identified as a top 5 priority issue by community discussion participants, who discussed difficulty with timely access to mental health services, lack of service coordination, and different social attitudes toward mental health versus physical health	The suicide rate in the region is similar to the rate for NH overall in recent years; the rate of emergency department utilization for mental health conditions is significantly lower than the rate for NH overall
<b>Access to enough and affordable health insurance; cost of prescription drugs</b>	Selected as the most pressing community health issue by community survey respondents overall; cost of Rx drugs was the top issue for respondents 65+; Inability to afford services the top reason people had difficulty accessing services in the past year and most frequent comment topic	The links between income, employment, family stress, cost of and limited ability to afford services, insurance, prescriptions and compromised health was a significant topic in community discussion groups	The uninsured rate in the DH-APD service area (8.2%) is lower than the overall NH state rate (10.5%) and higher than the overall VT state rate (7.3%)
<b>Alcohol and drug misuse including heroin and misuse of pain medications</b>	Selected as the second most pressing issue by community survey respondents; opioid misuse ranked the second highest priority issue by key stakeholders; 67% of community survey respondents identified 'people under the influence of alcohol or drugs' as a community safety issue	Identified as the highest priority issue by community discussion participants, who described rates of substance abuse as "insane" and having a significant impact on youth and families	The rate of emergency department utilization for substance abuse related mental health conditions is lower than the rate for NH overall; Rates of adult alcohol use and youth drug and alcohol use are similar to NH and VT state averages
<b>Access to dental health care</b>	Adult dental care most frequently cited for access difficulties by community survey respondents overall and from towns with lower median household incomes in particular; selected as a top 5 issue by community survey respondents and third highest priority of key stakeholders	Some discussion group participants noted the importance of oral health to overall wellness; selected as the top priority by participants in the low income family group	The dentist to population ratio is similar to statewide ratios for NH and VT overall; approximately 1 in 6 adults in the DH-APD service area are considered to have poor dental health

**SUMMARY OF COMMUNITY HEALTH NEEDS AND ISSUES BY INFORMATION SOURCE (continued)**

<b>Community Health Issue</b>	<b>Community and Key Leader Surveys</b>	<b>Community Discussion Groups</b>	<b>Community Health Status Indicators</b>
<b>Lack of physical activity; need for recreational opportunities, active living</b>	Identified as a top 10 community health issue by community and key leader survey respondents; biking/walking trails and recreation, fitness programs were the top 2 resources people would use if more available	Identified as a top 10 issue by community discussion group participants; discussion topics included access to affordable fitness and recreation activities for youth and families, as well as time pressures	About 1 in 5 adults in the DH-APD Service Area can be considered physically inactive on a regular basis – a rate similar to the rest of New Hampshire and Vermont
<b>Poor nutrition/access to affordable healthy food</b>	Selected as an important community health issue by 31% of community survey respondents; second most frequent commentary theme in response to the question of ‘one thing you would change to improve health’	Dietary habits, nutrition and access to healthy foods identified was a common topic of community discussion group participants	About 60% of adults in the DH-APD service area are considered overweight or obese; the rate of obesity among 3 <sup>rd</sup> graders in counties served by DH-APD are higher than for NH overall
<b>Income, poverty, employment; family stress</b>	52% of community respondents with annual household income under \$25,000 reported difficulty accessing services; issues of affordability, insurance costs and deductibles frequently cited as reasons for access difficulties	Identified as the second most important community health issue by community discussion group participants; participants identified geographic and social divides driven by income and class structures	14% of families and 27% of children in the DH-APD service area are living with incomes less than 200% of the federal poverty level – rates that are lower than for NH and VT overall
<b>Affordable Housing</b>	Access to affordable housing identified as the top resource that should receive more focus in support of a healthy community	Identified as the third most important health-related issue by community discussion groups and the top issue selected by the teenage mom group	37% of households in the DH-APD service area spend more than 30 percent of their income on housing costs; a proportion similar to NH and VT overall
<b>Access to Primary Health Care</b>	Top 10 issue for community survey and key leader respondents; about 10% of community respondents reported difficulty accessing primary care services in the past year	Access to primary health care noted as an issue within the context of discussions about the quality of patient-provider relationships, coordination of services and community-based supports	About 1 in 7 adults in the DH-APD service area report not having a ‘personal health care provider’; ED visits for asthma and diabetes - potential indicators of primary care adequacy - lower than in NH overall
<b>Health care for seniors</b>	Selected as the 2 <sup>nd</sup> most pressing community health issue by community survey respondents age 65 and over; 34% of all respondents selected ‘support for older adults’ as a focus area for health improvement	UVIP discussion group emphasized needed improvements in discharge planning, provider awareness of and effective connections to community-based supports and other resources to help seniors stay in their community	The proportion of the DH-APD service area population that is 65 or older (16%) and the percentage of the population with at least one functional disability (11%) are each similar to NH and VT state averages

## A. COMMUNITY SURVEY RESULTS WITH SELECTED SERVICE AREA DEMOGRAPHICS

The total population of the primary service area of Dartmouth-Hitchcock and Alice Peck Day Memorial Hospital (DH-APD service area) in 2013 was 69,884 according to the United States Census Bureau, which is an increase of about 3,483 people or 5.2% since the year 2000. The 2015 Community Health Needs Assessment Survey conducted by Dartmouth-Hitchcock and Alice Peck Day (DH-APD) yielded 1,566 individual responses including 1,185 from towns within the service area or approximately 2% of the total adult population. (A total of 381 survey respondents were from towns outside the region or did not identify their town of residence). As shown by Table 1, survey respondents from the DH-APD service area are represented in relatively close proportion overall to the service area population by town, although residents of Canaan are somewhat over-represented in proportion to their total population, while residents of Hanover, Hartford and Hartland are somewhat under-represented. It is also important to note that 2015 survey respondents were more likely to be female (78% of respondents), while the age distribution of respondents was similar to the population overall (e.g. 22.4% of respondents were 65 years of age or older compared to 21.2% of the overall adult population in the service area).

**TABLE 1: Service Area Population by Town;  
Comparison to Proportion of 2015 Community Survey Respondents**

	2013 Population	% Total Population	% of Respondents	Difference
<b>DH-APD Service Area</b>	<b>69,884</b>		<b>83.3%</b>	
Canaan, NH	3,889	5.6%	12.2%	+6.1%
Dorchester, NH	323	0.5%	0.6%	+0.1%
Enfield, NH	4,572	6.5%	7.3%	+0.8%
Fairlee, VT	1,014	1.5%	1.2%	-0.3%
Grafton, NH	1,318	1.9%	2.1%	0.2%
Grantham, NH	2,960	4.2%	3.7%	-0.5%
Hanover, NH	11,287	16.2%	10.5%	-5.7%
Hartford, VT	9,893	14.2%	9.9%	-4.3%
Hartland, VT	3,392	4.9%	1.1%	-3.8%
Lebanon, NH	13,367	19.1%	21.2%	+2.1%
Lyme, NH	1,937	2.8%	1.0%	-1.8%
Norwich, VT	3,396	4.9%	3.2%	-1.7%
Orange, NH	372	0.5%	Included with Canaan	

	2013 Population	% Total Population	% of Respondents	Difference
Orford, NH	1,454	2.1%	2.7%	+0.6%
Piermont, NH	817	1.2%	0.2%	-1.3%
Plainfield, NH	2,530	3.6%	2.2%	-1.4%
Sharon, VT	1,731	2.5%	0.6%	-1.9%
Thetford, VT	2,599	3.7%	2.1%	-1.6%
Woodstock, VT	3,033	4.3%	1.5%	-2.8%
Other			16.7%	
Unknown			9.1%	

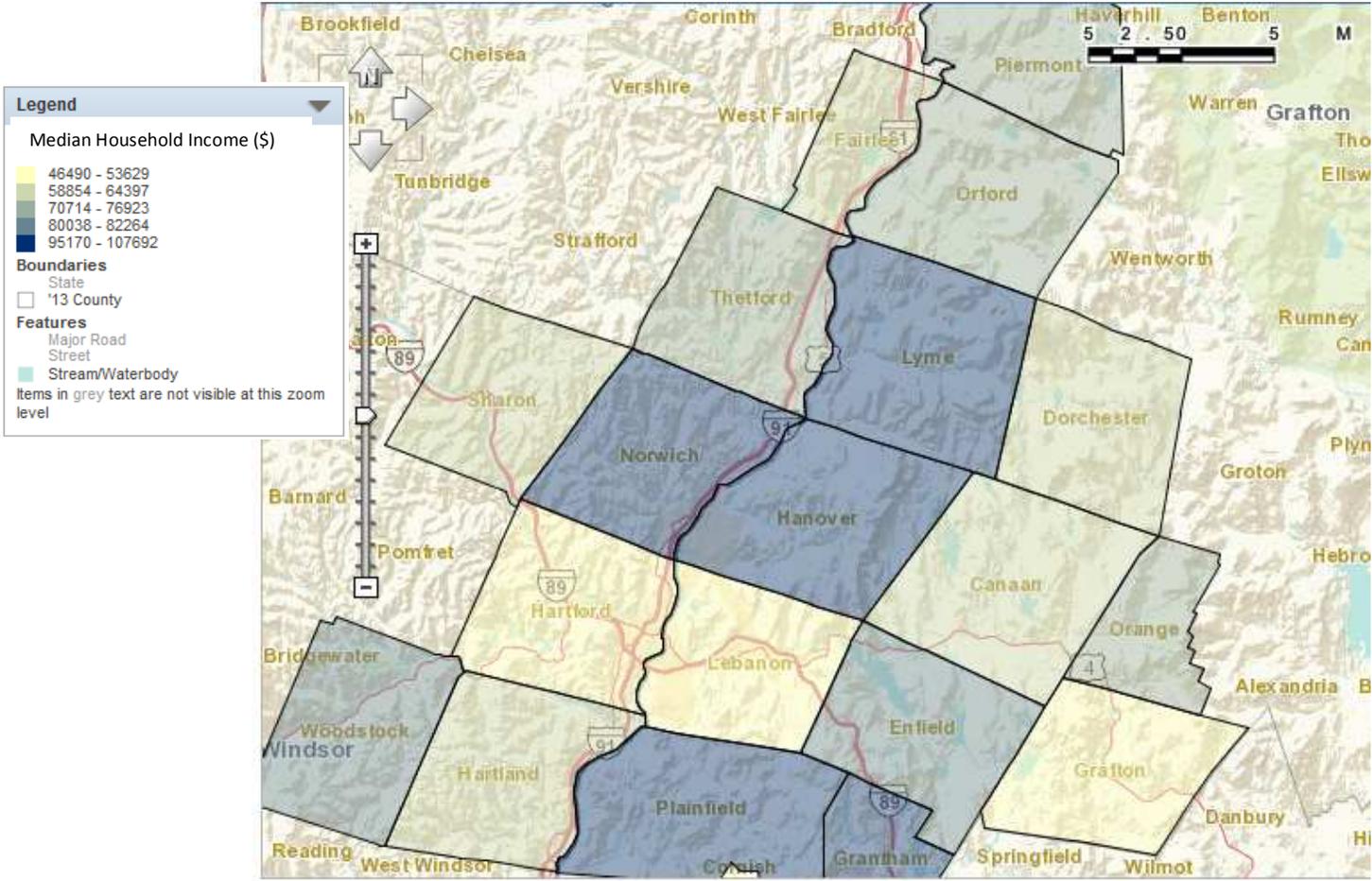
Table 2 on the next page displays additional demographic information for the towns of the DH-APD Service Area. On this table, municipalities are displayed in order of median household income with comparison to the median household income in Vermont and New Hampshire. As displayed by the table, eleven towns in the service area have higher median household incomes than the State of New Hampshire overall, while 8 towns have median household incomes less than the New Hampshire state median and 3 towns have median household incomes less than the Vermont state median. In addition, 5 towns have a higher proportion of individuals with household incomes at 200% of the federal poverty level or less when compared to the State of New Hampshire overall. Figure 1 following this table displays a map of the service area with shading depicting the median household income by town in 5 categories from low to high median household income.

**TABLE 2: Selected Demographic and Economic Indicators**

Area	Median Household Income	Percent of Families in Poverty (100% FPL)	Percent of Families with income less than 200% of the Poverty level (200% FPL)
Lyme	\$107,692	0.7%	5.7%
Plainfield	\$101,250	0.0%	6.3%
Hanover	\$97,054	2.5%	4.9%
Grantham	\$96,810	0.9%	6.5%
Norwich	\$95,170	1.5%	3.5%
Woodstock	\$82,264	1.1%	10.2%
Enfield	\$80,038	1.2%	14.2%
Thetford	\$76,923	8.9%	14.2%
Piermont	\$75,833	3.4%	7.3%
Orford	\$73,984	4.0%	15.0%
Orange	\$70,714	1.0%	8.3%
<b>New Hampshire</b>	<b>\$64,916</b>	<b>5.6%</b>	<b>16.8%</b>
Fairlee	\$64,397	2.1%	12.1%
Dorchester	\$63,750	1.2%	14.0%
Canaan	\$61,667	9.1%	20.7%
Hartland	\$59,205	1.0%	13.2%
Sharon	\$58,854	6.3%	17.2%
<b>Vermont</b>	<b>\$54,267</b>	<b>7.6%</b>	<b>22.8%</b>
Hartford	\$53,629	6.4%	19.6%
Lebanon	\$52,231	9.1%	18.7%
Grafton	\$46,490	5.5%	18.7%
<b>Service Area Median / Mean</b>	<b>\$73,984</b>	<b>4.7%</b>	<b>14.0%</b>

*Data Source: U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates.*

**Figure 1 – Median Household Income by Town, DH-APD Service Area**  
 2009-2013 American Community Survey; Map source: American Factfinder



Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

## 1. Most Important Community Health Issues Identified by Survey Respondents

Table 3 displays the most important health issues as selected by respondents to the 2015 DH-APD Community Health Needs Assessment Survey. Community survey respondents were asked to select the top 5 most important health issues from a list of 24 potential issues including “Other”. The complete responses with comments are included in Appendix A to this report.

**Table 3: Top 12 Most Pressing Community Health Issues; Community Respondents**

<b>% of All Respondents selecting the issue (n=1,566)</b>	<b>Community Health Issue</b>
47.0%	<b>Access to enough, affordable health insurance</b>
42.1%	<b>Access to mental health care</b>
40.5%	<b>Cost of prescription drugs</b>
37.7%	<b>Heroin and misuse of pain medications</b>
34.8%	<b>Access to dental health care</b>
34.5%	<b>Alcohol and drug misuse</b>
30.8%	<b>Poor nutrition/unhealthy food</b>
30.1%	<b>Lack of physical activity</b>
28.5%	<b>Access to primary health care</b>
25.2%	<b>Mental illness</b>
23.4%	<b>Health care for seniors</b>
19.0%	<b>Smoking/tobacco use</b>

In order to examine more closely the question of top community health issues as identified by survey respondents, two groups were created corresponding to towns with median household incomes either higher or lower than the DH-APD median. Table 4 displays differences and similarities between the responses of these two groups (note: color coding corresponds to the overall order of priorities on the table above.) In general, the responses are more similar than different between respondents from these two community subsets. Respondents from lower income communities were somewhat more likely to select ‘heroin and pain medication misuse’ and ‘access to dental health care’, while respondents from higher income communities ranked ‘access to mental health care’ highest.

**Table 4: Most Important Health Issues by Community Income Category (median household income)**

<b>% of Respondents selecting the issue (n=695)</b>	<b>Service Area Towns with Lower Median Household Income</b>	<b>% of Respondents selecting the issue (n=490)</b>	<b>Service Area Towns with Higher Median Household Income</b>
47.6%	<b>Access to enough, affordable health insurance</b>	47.8%	<b>Access to mental health care</b>
40.1%	<b>Cost of prescription drugs</b>	47.6%	<b>Access to enough, affordable health insurance</b>
40.0%	<b>Heroin and misuse of pain medications</b>	38.8%	<b>Cost of prescription drugs</b>
39.4%	<b>Access to mental health care</b>	34.5%	<b>Heroin and misuse of pain medications</b>
36.4%	<b>Access to dental health care</b>	31.8%	<b>Alcohol and drug misuse</b>
35.4%	<b>Alcohol and drug misuse</b>	31.4%	<b>Poor nutrition/unhealthy food</b>
32.2%	<b>Poor nutrition/unhealthy food</b>	31.0%	<b>Lack of physical activity</b>
29.5%	<b>Lack of physical activity</b>	29.6%	<b>Access to dental health care</b>
29.4%	<b>Access to primary health care</b>	29.4%	<b>Access to primary health care</b>
25.6%	<b>Mental illness</b>	24.9%	<b>Health care for seniors</b>
22.7%	<b>Health care for seniors</b>	24.9%	<b>Mental illness</b>
20.1%	<b>Smoking/tobacco use</b>	18.2%	<b>Cancer</b>

Chart 1 below displays the health issues with the greatest variation between the two sub-regions. For example, a higher proportion of respondents from lower income towns (36.4%) indicated that “access to dental health care” was among the most important health issues than respondents from higher income towns (29.6%; difference=6.8%). In contrast, residents of higher income towns were more likely to select ‘access to mental health care’ as a top priority (difference=8.4%). However, as noted previously, differences in priorities between residents of lower and higher income communities were generally small, with more consistency and agreement on priorities than differences.

**CHART 1**

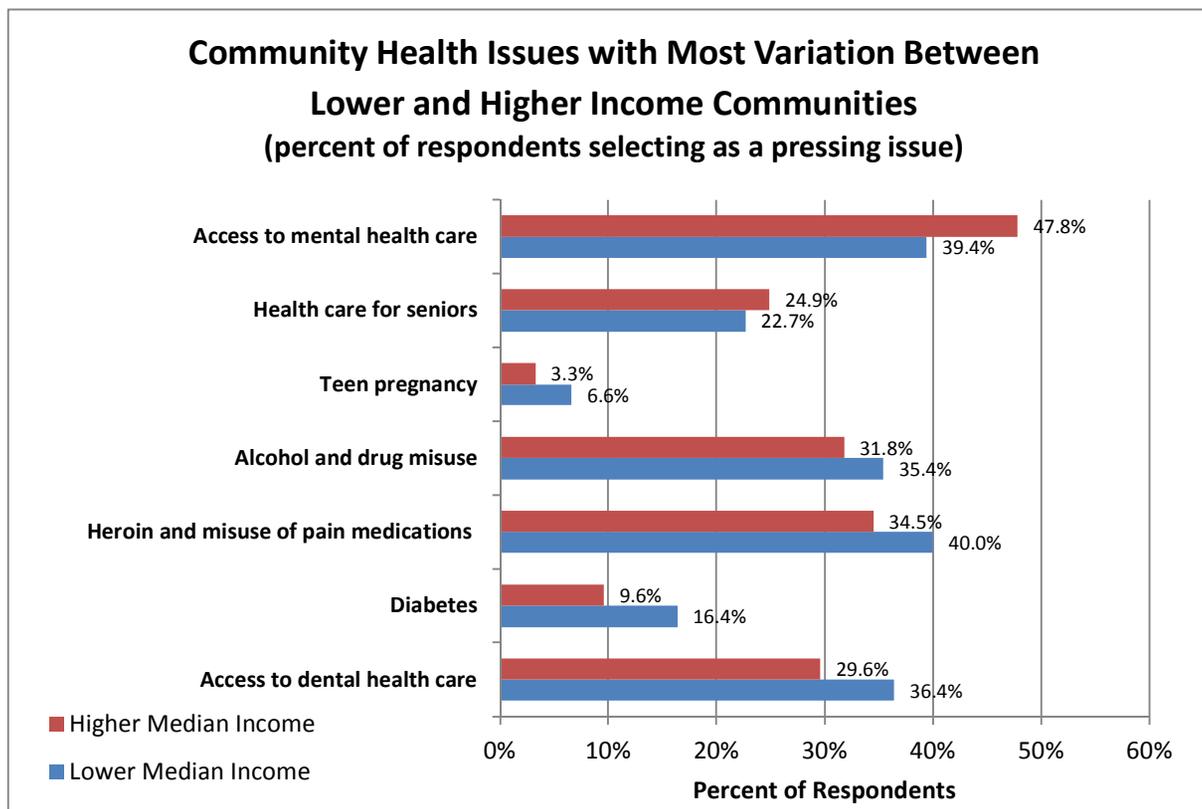


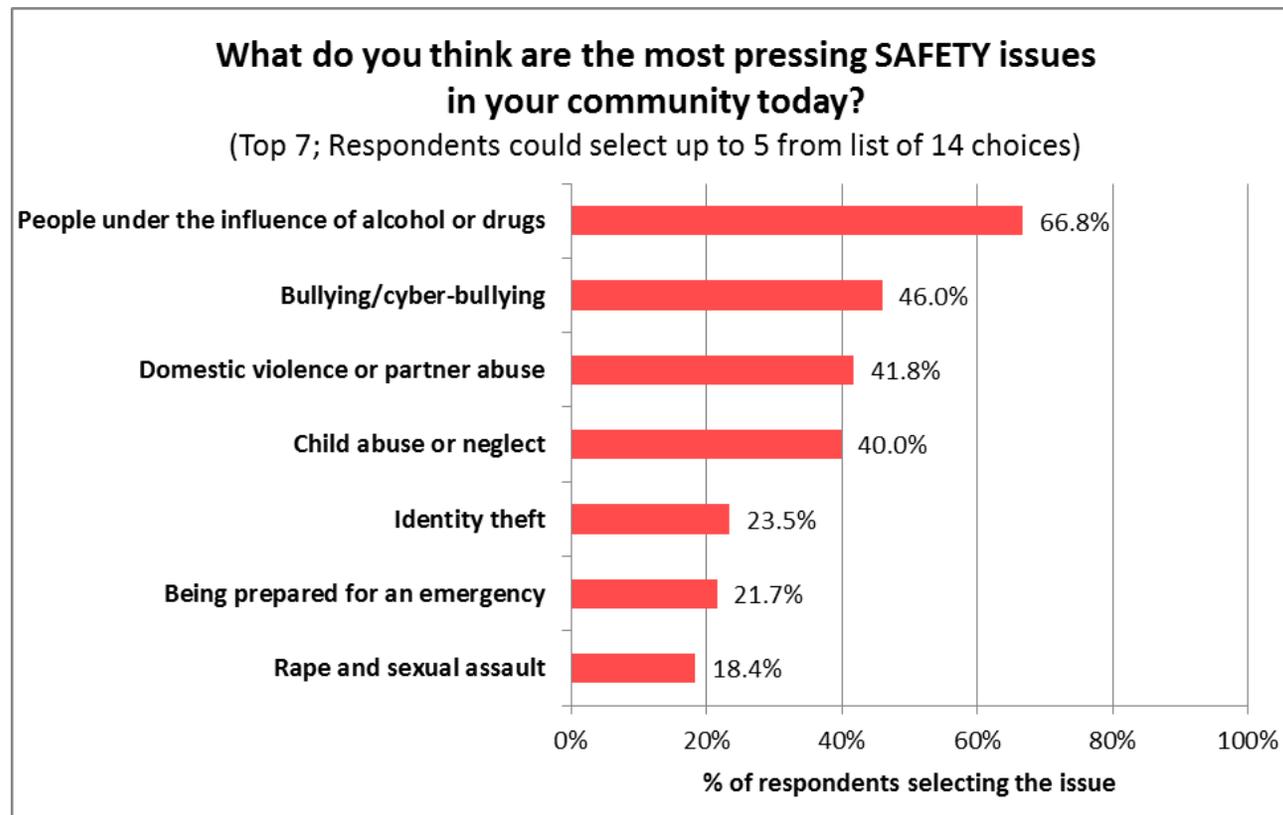
Table 5 shows the top 7 responses to the question of most important health issues by age group. In contrast to the analysis by town income grouping, variation in relative priorities by age group is more notable. Affordability of health insurance and prescription drug costs continued to be top issues across each age group. However, issues associated with substance misuse were the second and third priorities for those ages 18-44, while not appearing on the top 7 list at all for those respondents 65 years and older. Respondents in the older age group were substantially more likely to identify ‘Health care for Seniors’ as a top health issue and ‘Access to dental health care’ was more frequently cited by respondents ages 45 and older than younger respondents. ‘Access to Mental Health Care’ was the second most frequent response for people between the ages of 45 and 64 with nearly 1 of 2 respondents (49.2%) in this age group selecting this issue as a top priority.

**TABLE 5: Most Important Health Issues by Respondent Age**

<b>18-44 years</b>	<b>n=467</b>	<b>45-64 years</b>	<b>n=652</b>	<b>65+ years</b>	<b>n=322</b>
<b>Access to enough, affordable health insurance</b>	49.9%	<b>Access to enough, affordable health insurance</b>	51.2%	<b>Cost of prescription drugs</b>	46.9%
<b>Heroin and misuse of pain medications</b>	47.5%	<b>Access to mental health care</b>	49.2%	<b>Health care for seniors</b>	40.1%
<b>Alcohol and drug misuse</b>	40.7%	<b>Cost of prescription drugs</b>	43.6%	<b>Access to dental health care</b>	39.4%
<b>Access to mental health care</b>	40.3%	<b>Heroin and misuse of pain medications</b>	38.0%	<b>Access to enough, affordable health insurance</b>	38.8%
<b>Poor nutrition/unhealthy food</b>	40.0%	<b>Access to dental health care</b>	37.1%	<b>Access to mental health care</b>	34.2%
<b>Lack of physical activity</b>	33.6%	<b>Alcohol and drug misuse</b>	34.2%	<b>Access to primary health care</b>	32.9%
<b>Cost of prescription drugs</b>	32.1%	<b>Lack of physical activity</b>	29.3%	<b>Lack of physical activity</b>	29.2%

In addition to asking respondents to select the most pressing health issues in the community, the 2015 DH-APD Community Health Needs Assessment survey also asked about the most pressing safety issues. Community safety is an important component of community health and includes risks for injury and violence. Exposure to unsafe environments and accompanying chronic stress is also associated with poorer long term health and wellbeing outcomes such as chronic disease, depression and substance misuse. As displayed by Chart 2, the most significant community safety issue identified by respondents is the issue of ‘people under the influence of alcohol or drugs’ with 2 of every 3 survey respondents selecting this issue as a concern.

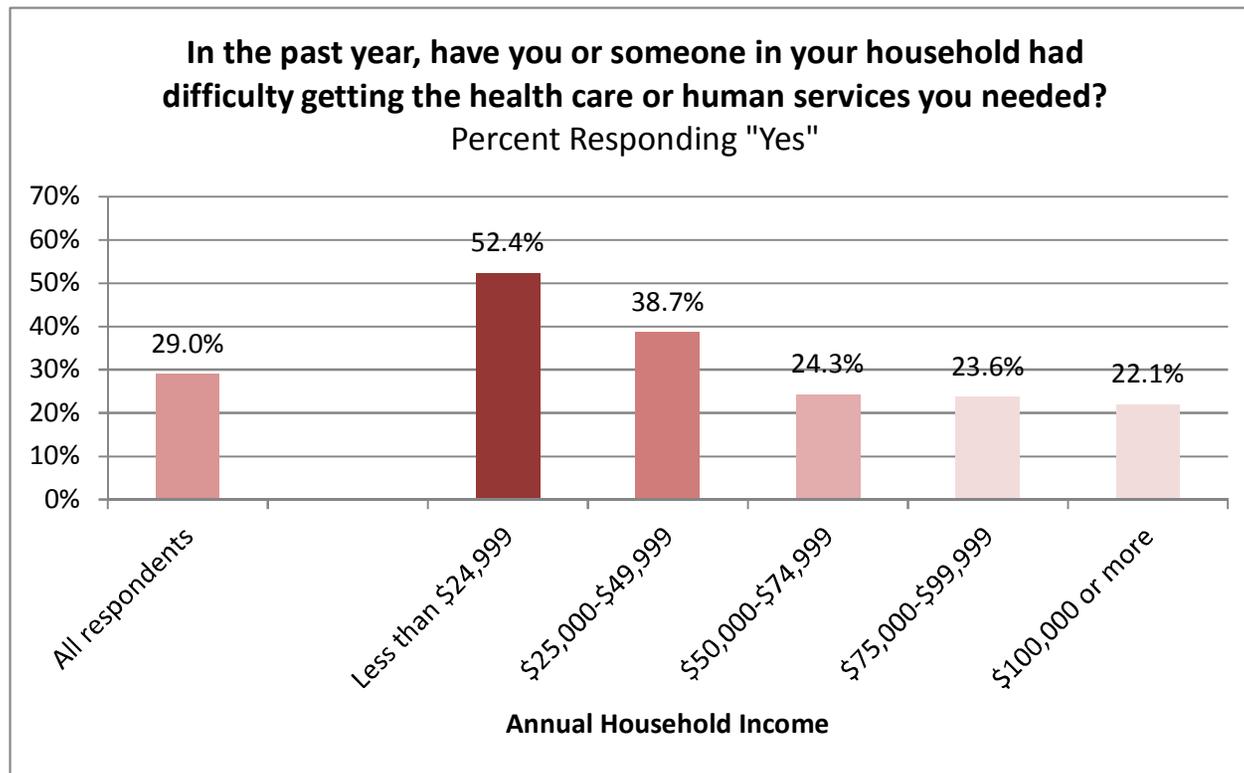
**CHART 2**



## 2. Barriers to Services Identified by Survey Respondents

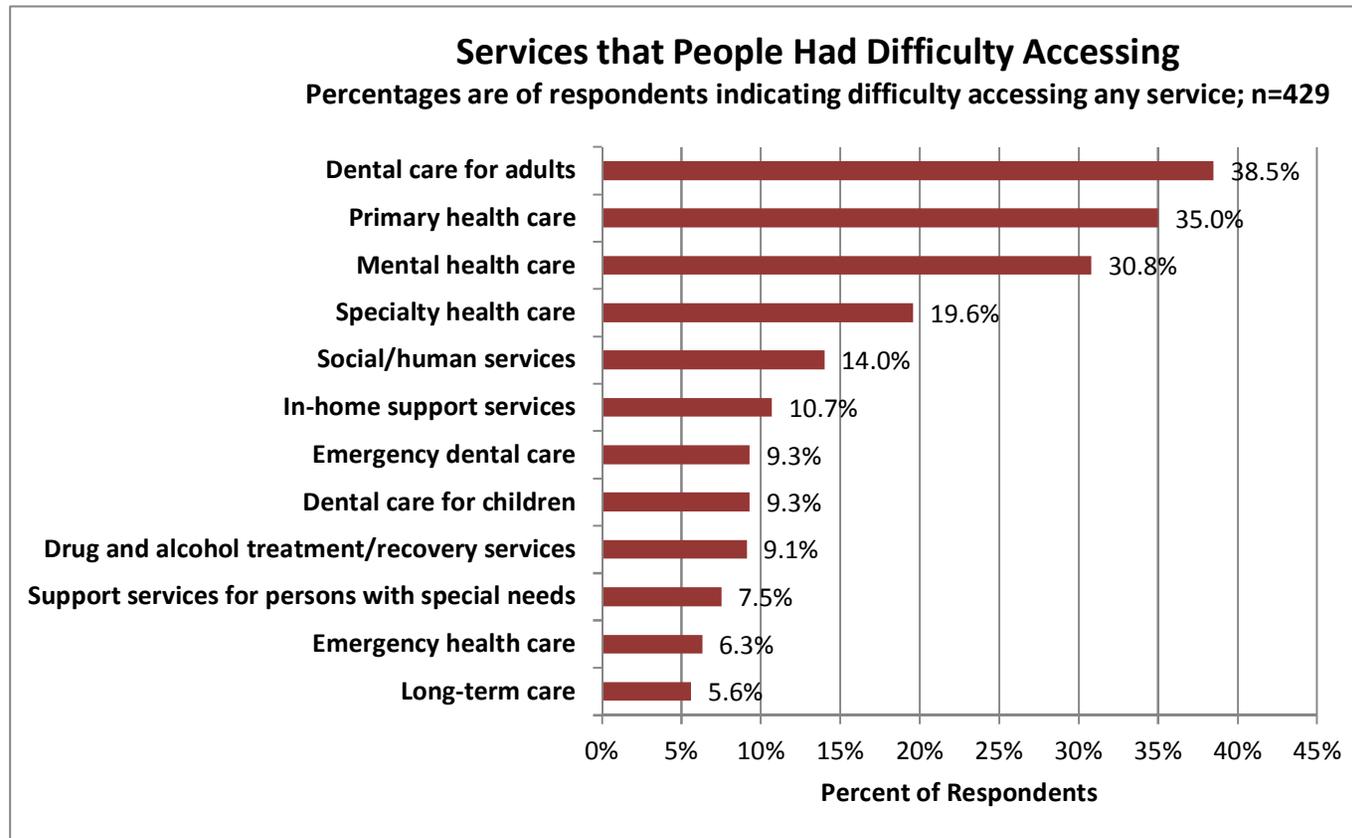
Respondents to the 2015 Community Needs Assessment Survey were asked, “In the past year, have you or someone in your household had difficulty getting the health care or human services you needed?” Overall, 29.0% of survey respondents indicated having such difficulty. As Chart 3 displays, there is a significant relationship between reported household income category and the likelihood that respondents reported having difficulty accessing services.

CHART 3



The survey also asked people to indicate the areas in which they had difficulty getting services or assistance. As displayed by Chart 3, the most common service types that people had difficulty accessing were: dental care for adults (38% of those respondents indicating difficulty accessing any services); primary health care (35%) and mental health care (35%). Note that percentages on this chart are of the subset of respondents who indicated any difficulty accessing services (29% of all respondents; n=429).

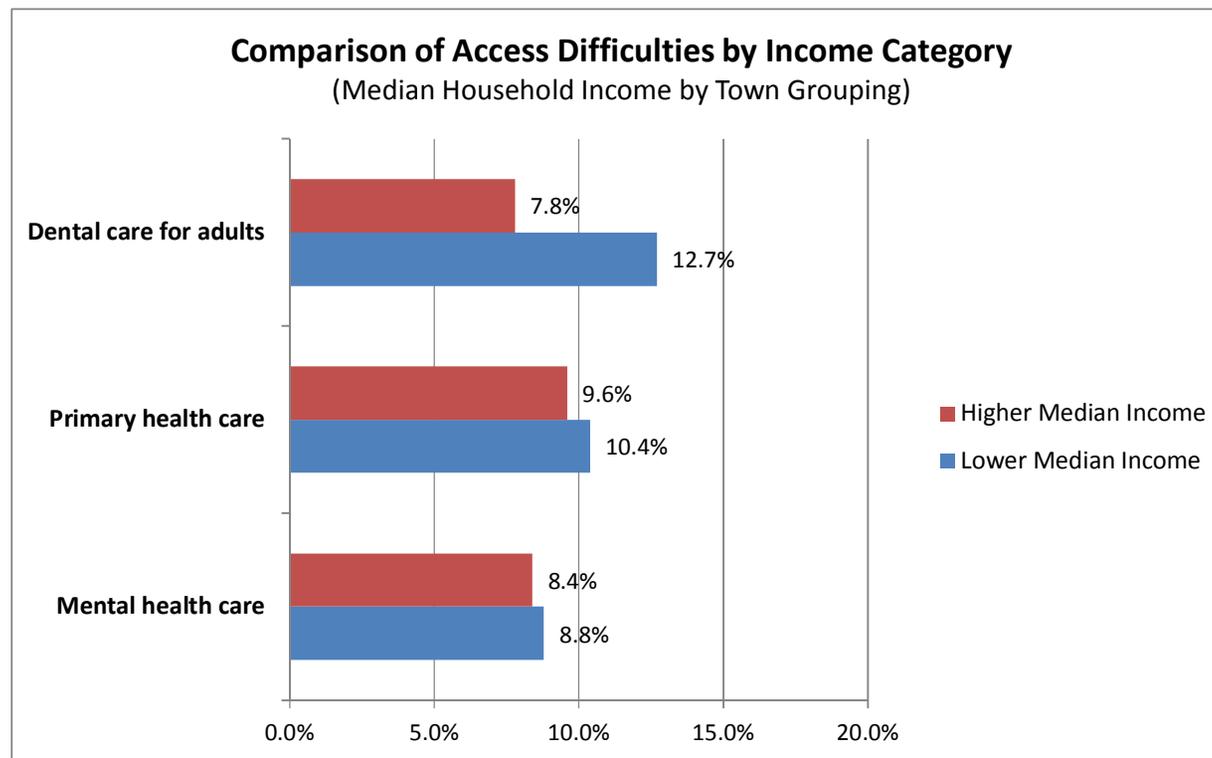
**CHART 4**



In a separate question, 18.8% of survey respondents indicated that ‘they or someone in their household had to travel outside of the local area to get the services you needed in the past year’. In an open-ended follow-up question, dental care and behavioral health care were two of the most commonly cited services for which people were traveling outside of the area. (See Appendix A for complete survey responses.)

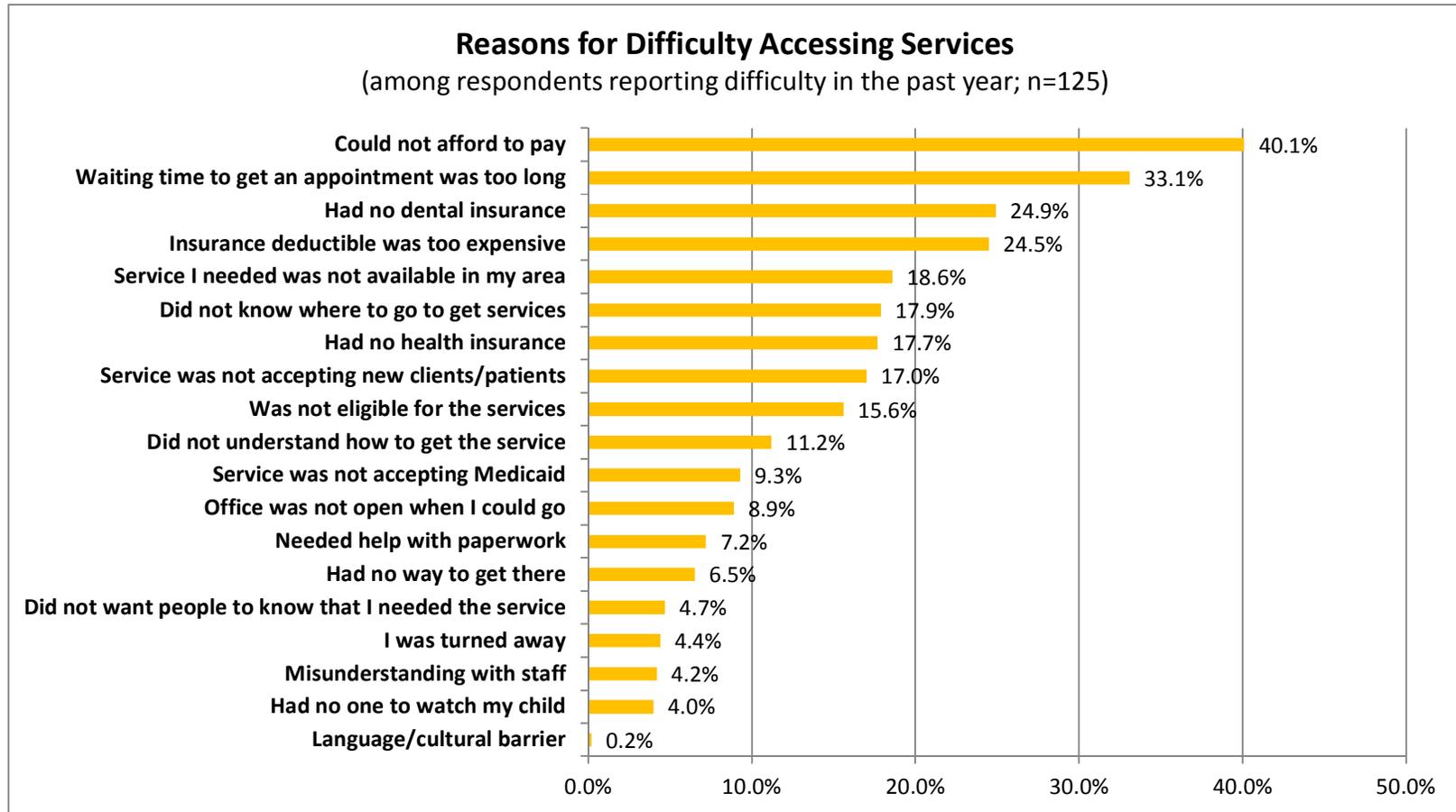
Chart 5 provides a comparison of reported access difficulties for the top three service types between higher income communities and lower income communities in the DH-APD service area. Respondents from the lower income town group were more likely to report difficulty accessing dental health care, while the proportion of respondents reporting primary care or mental health care access difficulties were more similar between the two groups of respondents. (Note that percentages on this chart are of all survey respondents, e.g. 12.7% of all respondents from lower income towns reported difficulty accessing dental health care services.)

**CHART 5**



Respondents who reported difficulty accessing services in the past year for themselves or family member were also asked to indicate the reasons why they had difficulty. As shown on Chart 6, the top reasons cited were ‘could not afford to pay’ for the service (40%) and ‘waiting time for an appointment was tool long’ (33%).

**CHART 6**



Further analysis of these two questions addressing access to specific types of services is shown by Table 6. Among respondents indicating difficulty accessing adult dental care, the top reason indicated for difficulty accessing services was ‘could not afford to pay’ (63%). Among respondents indicating difficulty accessing primary health care, about 47% indicated they had difficulty accessing services in the past year due to affordability of services and 36% had difficulty due to high insurance deductible. Affordability of service was also an issue for 45% of respondents who indicated difficulty accessing mental health care. However, the top access issue associated with this group was ‘waiting time for an appointment was too long’ (48%) and ‘service not accepting new patients’ was the third most common access barrier associated with this group of respondents (34%). This suggests that available service capacity is a significant access barrier for mental health services relative to dental care and primary health care where the top challenges are associated with cost barriers.

**TABLE 6: TOP REASONS RESPONDENTS HAD DIFFICULTY ACCESSING SERVICES BY TYPE OF SERVICE**  
 (Percentage of respondents who reported difficulty accessing a particular type of service)

<b>Dental Care for Adults (n=166, 10.6% of all respondents)</b>	<b>Primary Health Care (n=151, 9.6% of all respondents)</b>	<b>Mental Health Care (n=132, 8.4% of all respondents)</b>
<b>62.7%</b> of respondents who had difficulty receiving dental care for adults also reported they <b><i>Could not afford to pay</i></b>	<b>47.0%</b> of respondents who had difficulty receiving primary health care also reported they <b><i>Could not afford to pay</i></b>	<b>48.5%</b> of respondents who had difficulty receiving mental health care also reported the <b><i>Waiting time to get an appointment was too long</i></b>
<b>59.0%</b> Had no dental insurance	<b>37.7%</b> Had no health insurance	<b>44.7%</b> Could not afford to pay
<b>33.7%</b> Insurance deductible was too expensive	<b>35.8%</b> Insurance deductible was too expensive	<b>34.1%</b> Service was not accepting new patients
<b>22.9%</b> Waiting time to get an appointment was too long	<b>31.1%</b> Waiting time to get an appointment was too long	<b>30.3%</b> Insurance deductible was too expensive
<b>22.9%</b> Did not know where to go to get services	<b>21.9%</b> Did not know where to go to get services	<b>27.3%</b> Did not know where to go to get services

### 3. Community Health Resources Needing More Attention

The 2015 DH-APD Community Health Needs Assessment Survey also asked people to select from a list of services or resources that support a healthy community that should receive more focus. As shown by Chart 7, the top resources identified by survey respondents as needing more attention were substance access to affordable housing; affordable, high quality child care; and access to healthy, affordable food.

CHART 7

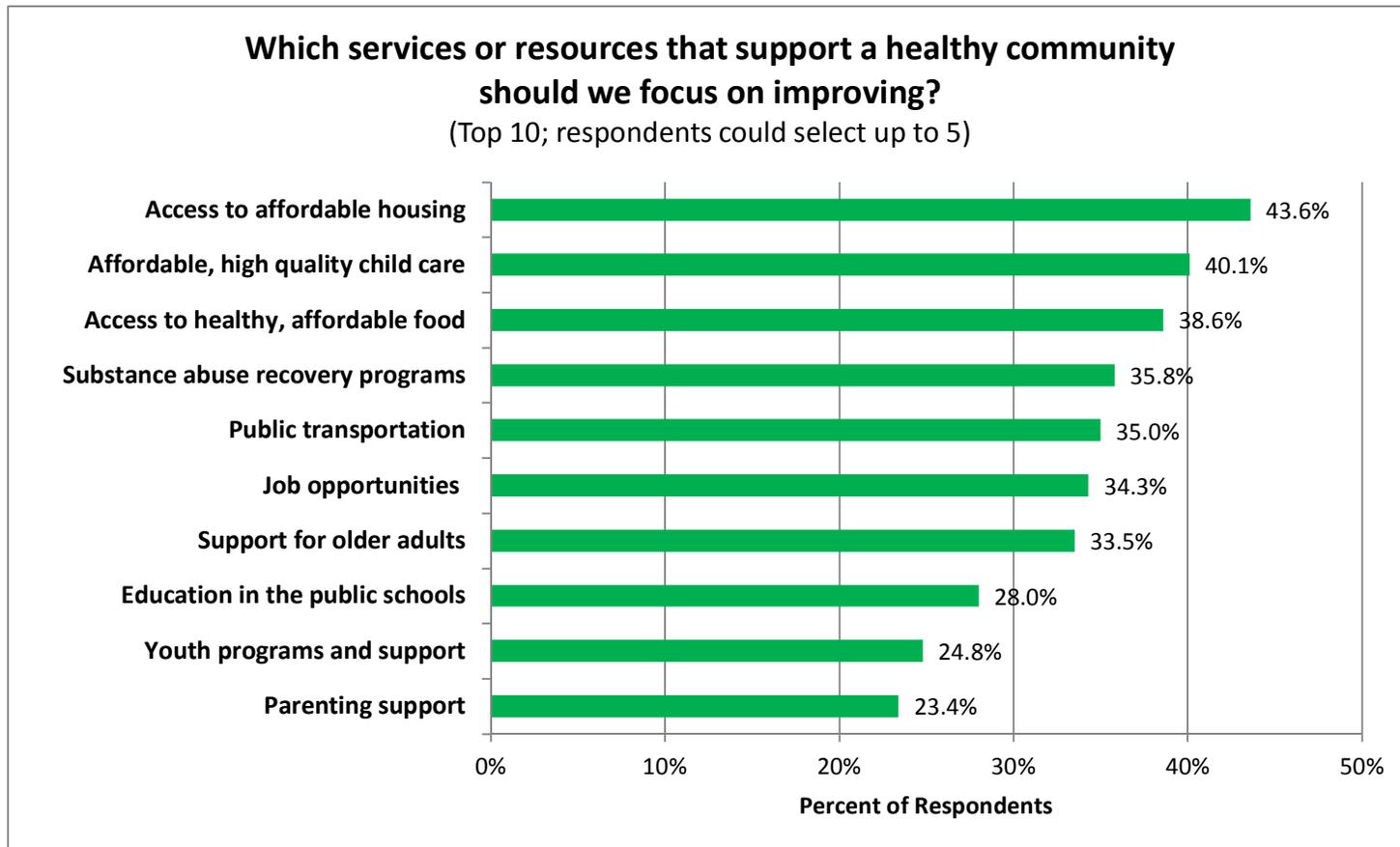
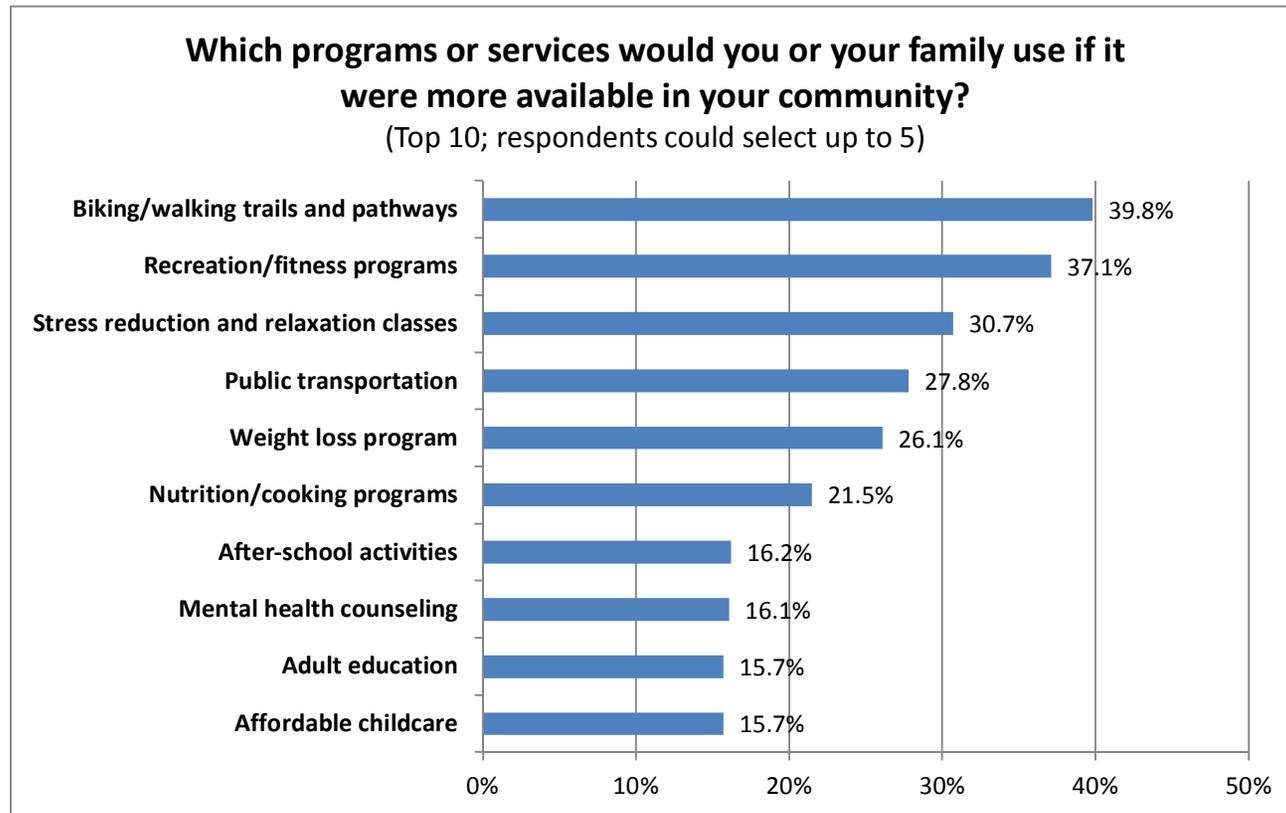


Chart 8 displays the top 10 program or services survey respondents indicated they would use if more available in their community. Table 7 on the next page displays the top programs or resources of interest by age category. Biking/walking trails and recreation/fitness programs were of interest to all age groups. Affordable childcare was of interest to about one third of respondents ages 18-44, while public transportation was indicated as a service that people would use more by nearly one third of those ages 45 and older.

**CHART 8**



**TABLE 7: Programs or Services of Interest by Age Category**

<b>18-44 years</b>	<b>n=467</b>	<b>45-64 years</b>	<b>n=652</b>	<b>65+ years</b>	<b>n=322</b>
<b>Recreation/fitness programs</b>	47.3%	<b>Biking/walking trails and pathways</b>	44.8%	<b>Biking/walking trails and pathways</b>	33.9%
<b>Biking/walking trails and pathways</b>	44.3%	<b>Recreation/fitness programs</b>	39.6%	<b>Public transportation</b>	30.7%
<b>Stress reduction and relaxation classes</b>	36.0%	<b>Stress reduction and relaxation classes</b>	35.9%	<b>Recreation/fitness programs</b>	28.0%
<b>Affordable childcare</b>	34.5%	<b>Public transportation</b>	31.4%	<b>Weight loss program</b>	25.5%
<b>Nutrition/cooking programs</b>	31.5%	<b>Weight loss program</b>	27.3%	<b>Better balance/falls reduction programs</b>	25.5%

The 2015 DH-APD Community Health Needs Assessment Survey asked people to respond to the question, *“If you could change one thing that you believe would contribute to better health in your community, what would you change?”* A total of 986 survey respondents (63%) provided written responses to this question. Table 8 on the next page provides a summary of the most common responses by topic theme. All comment detail can be found in Appendix A of this report.

**TABLE 8****“If you could change one thing that you believe would contribute to better health in your community, what would you change?”**

<b>Affordability of health care/low cost or subsidized services; insurance; health care payment reform</b>	<b>16.5% of respondents</b>
<b>Improved resources, programs or environment for healthy eating/ nutrition/food affordability; healthy lifestyle education</b>	<b>14.5%</b>
<b>Accessibility/availability of mental health and substance abuse services; substance misuse prevention</b>	<b>13.1%</b>
<b>Improved resources, programs or environment for physical activity, active living; affordable recreation and fitness</b>	<b>11.8%</b>
<b>Health care provider availability including certain specialties; hours and wait time; health care delivery system improvements</b>	<b>10.0%</b>
<b>Employment opportunities/benefits; economy; housing; child care</b>	<b>6.2%</b>
<b>Community services/supports; caring culture; social opportunities</b>	<b>5.8%</b>
<b>Programs/services for youth and families; parenting education/support</b>	<b>4.4%</b>
<b>Transportation services</b>	<b>3.7%</b>
<b>Senior services, programs</b>	<b>2.2%</b>
<b>Improve educational system</b>	<b>2.0%</b>
<b>Tobacco cessation and prevention</b>	<b>1.5%</b>
<b>Crime/violence; law enforcement</b>	<b>1.5%</b>
<b>Personal responsibility/reduce dependence</b>	<b>1.2%</b>

## B. KEY STAKEHOLDER SURVEY

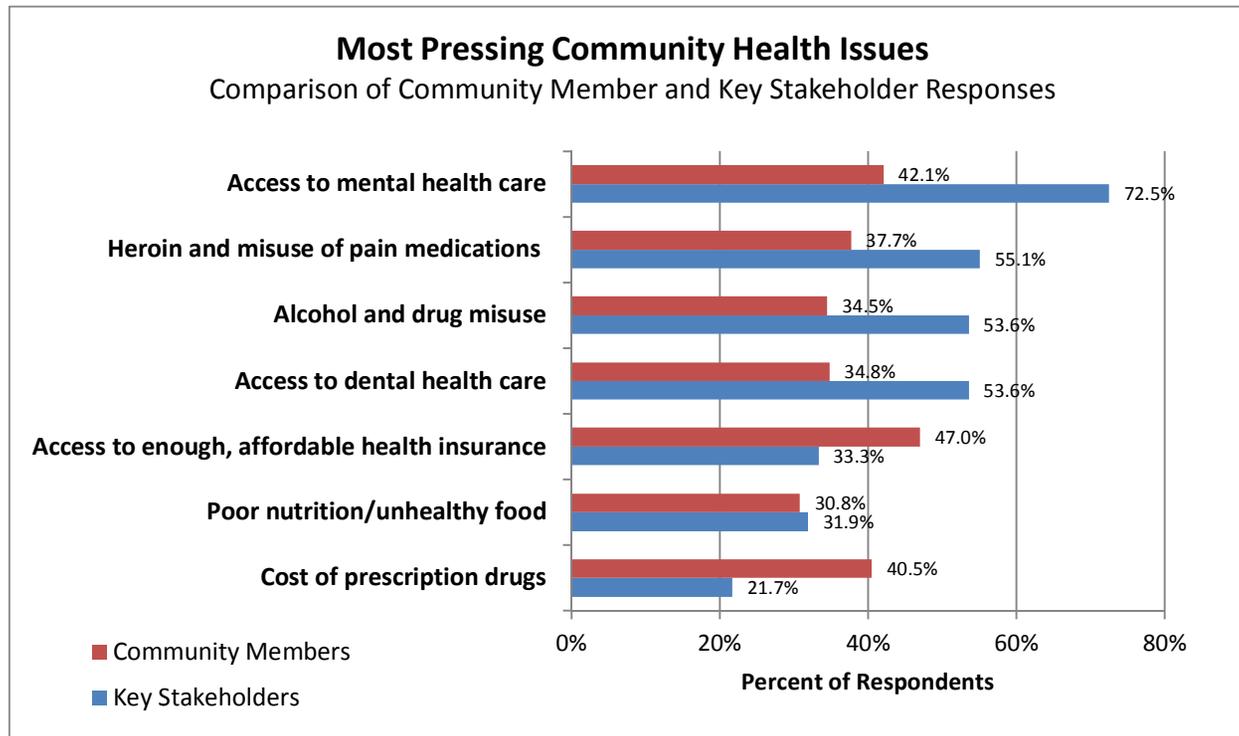
In addition to the survey of community residents, the 2015 DH-APD Community Health Needs Assessment included an online survey of key stakeholders representing different community sectors and agencies. This survey was conducted to supplement the community survey by gathering input on needs from the perspective of community leaders and service providers. The survey was conducted in conjunction with New London Hospital, Valley Regional Healthcare, and Mt. Ascutney Hospital and Health Center. At the beginning of the survey, respondents were asked to indicate the region they primarily serve or are most familiar with, which could be multiple and overlapping regions. A total of 69 key stakeholder respondents indicated that their responses were reflective of the DH-APD service area (Greater Lebanon/Hartford area). Respondents represented the following sectors: Human Service/Social Service (20%), Education/Youth Services (13%), Municipal/County Government (9%), Mental/Behavioral Health (9%), Home Health Care (6%), Primary Health Care (7%), Medical Subspecialty (1%), Public Safety/Fire (4%), Public Health (7%), Community Member/Volunteer (3%), Dental/Oral Health Care (1%), Emergency Medical Service (1%) and Business Sector (1%).

Table 9 displays the top 6 most pressing community health issues from the perspective of key stakeholders. Chart 9 on the next page compares these responses with the top 6 community health issues identified by community survey respondents. Five of the six top priorities were the same between these two groups of respondents, although key stakeholders were more likely to identify access to mental health care, substance misuse issues, and access to dental health care as top issues. Community members tended to select health care affordability issues more frequently including ‘Cost of Prescription Drugs’, which was the third most common choice for community members. In comparison, prescription drug cost was the 9<sup>th</sup> most frequent choice of key stakeholders.

**Table 9: Top 6 Most Pressing Community Health Issues; Key Stakeholders**

<b>% of All Respondents selecting the issue (n=69)</b>	<b>Community Health Issue</b>
72.5%	<b>Access to mental health care</b>
55.1%	<b>Heroin and misuse of pain medications</b>
53.6%	<b>Alcohol and drug misuse</b>
53.6%	<b>Access to dental health care</b>
33.3%	<b>Access to enough, affordable health insurance</b>
31.9%	<b>Poor nutrition/unhealthy food</b>

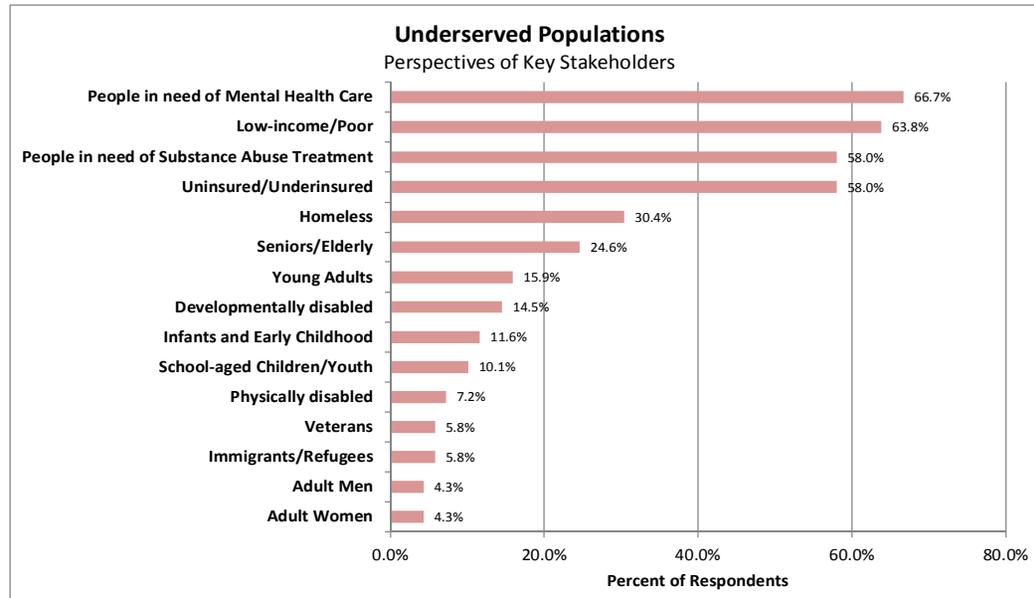
**CHART 9**



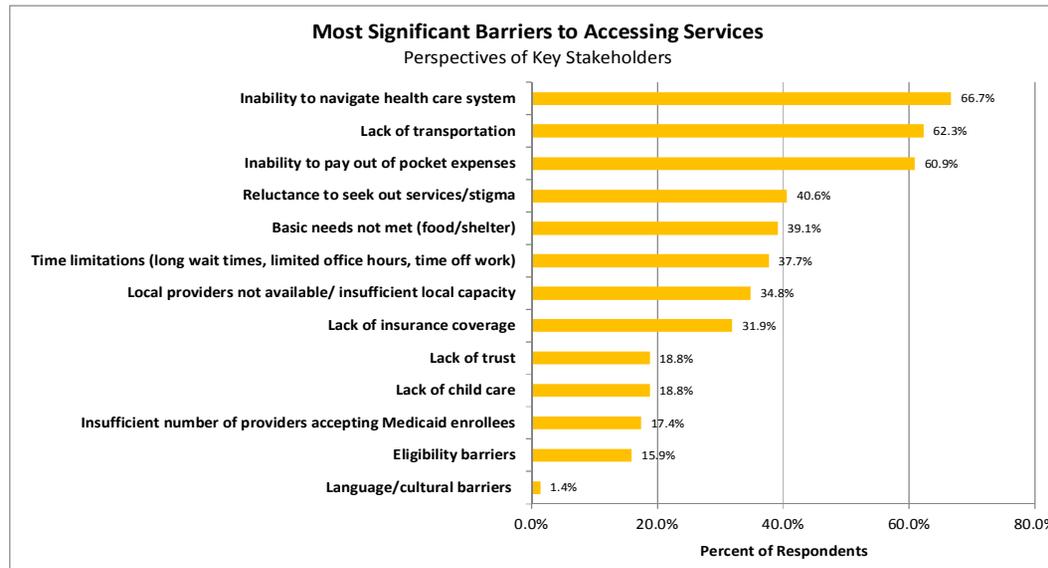
Key stakeholders were also asked if there are specific populations in the community that are not being adequately served by local health services. About 78% of respondents indicated that there are specific underserved populations. Chart 10 displays results from key stakeholder responses on specific populations thought to be currently underserved. ‘People in need of Mental Health Care’, ‘Uninsured/Underinsured’, ‘Low Income/Poor’ and ‘People in need of substance abuse treatment’ were the most frequently indicated populations perceived to be currently underserved.

Chart 11 displays results from key stakeholder responses on the most significant barriers in the community that keep people from accessing the services they need. ‘Inability to navigate the health care system’, ‘Lack of transportation’ and ‘Inability to pay out of pocket expenses’ were most frequently cited. Complete survey responses for the key stakeholder survey can be found in Appendix B to this report.

**CHART 10**



**CHART 11**



## C. COMMUNITY HEALTH DISCUSSION GROUPS

A set of four discussion groups were convened in the Summer of 2015 as part of the coordinated effort by Dartmouth Hitchcock Medical Center (DHMC) and Alice Peck Day Memorial Hospital (APD) to understand the health-related needs of the community and inform planning efforts for programs and services that address those needs. The purpose of the discussions was to get input and community-level context on health issues that matter to the community including thoughts and perceptions about the health of the community from different perspectives. Four discussion groups were convened representing a variety of important community sectors and perspectives including:

- **Business Leaders ( 7 participants)**
- **Teenage Mothers ( 6 participants)**
- **Low Income Families (12 participants)**
- **United Valley Interfaith Project (UVIP) Group (7 participants)**

### 1. DHMC-APD Discussion Group Themes

The following paragraphs summarize the findings from the community discussion groups. See Appendix C for more detailed categorization of the notes from these groups. Themes from the community discussion groups include:

1. Discussion group participants understood and described a comprehensive, holistic perspective on health and well-being. The interconnectedness of health behaviors, the physical environment, emotional and mental well-being, programs and services, and underlying determinants of health such as financial health and education were all discussed with respect to individual and community health outcomes.
2. Participants perceived that the overall health of the community is a mixture of healthy and unhealthy groups of people. Positive factors mentioned include a number of specific workplace or community resources that promote health and wellness, such as Farmers Markets and community discussion forums, as well as services such as annual flu shot clinics and free bus services. However, there was also noteworthy discussion of the challenges faced by individuals and

*“It’s not just working out and eating, but it’s overall your mental and emotional health and habits. – Teenage Mom participant*

*Health plays off of the community - if people are unhealthy, then they cannot work and that can create a domino effect in the overall community atmosphere – Low Income Family group participant*

families under economic stress, issues of aging, and lack of affordable nutrition and exercise opportunities available to all community members. Several comments identified the lack of communication between health care providers and patients on managing their health conditions after a major medical procedure or even chronic conditions. A major concern among participants was a high rate of substance abuse and barriers to accessing mental health services. These issues were described as highly significant and negative contributors to health and safety in the community.

3. Participants identified a wide variety of community strengths and resources that promote health and community connectedness, including accessible public transportation, the Hartford Coalition Group, seasonal flu clinics, workplace programs, such as Dartmouth Health Connect, the Upper Valley Haven supporting the homeless, The Family Place supporting young parents, and Second Growth providing substance misuse treatment and recovery.

4. Participants identified a range of barriers to promoting good health in the community including the lack of awareness of available community resources; financial pressures on individuals, families, and community service organizations; substance abuse and lack of available treatment, high stress levels that influence mental and emotional health; and poor communication at both the healthcare system and individual patient-provider levels.

5. With respect to what organizations could do better to support or improve community health, participants identified needs for enhanced communication skills between providers and patients, increased coordination between health care agencies, increased awareness of available health and financial resources for fragile families, improved access to and availability of specific services, such as substance abuse treatment, and incorporation of telehealth programs into primary care systems.

*"Employees are living from paycheck to paycheck - when they're trying to decide between a mortgage, car payment & food, they're choosing food which leads to a housing crisis." - Business Group Participant*

*The community has a lot of resources but people do not know about the resources - this is where the connection gets dropped- Low Income Family group participant*

*"There is a lack of help for mental health issues. It has to be really bad before you can get help and by then it's too late."- Teenage Mom*

## 2. High Priority Issues from DH-APD Discussion Groups

In each discussion group, a prioritization exercise was conducted to identify the most important or pressing needs for improving community health. The highest priority issues identified by the discussion groups across the region overall were:

1. *Alcohol and Drug Abuse*
2. *Income, poverty*
3. *Affordable Housing*
4. *Fragile families, family stress*
5. *Access to Mental Health/Behavioral Health Care Services*
6. *Access to Dental Care Services*
7. *Physical Activity, recreational opportunities, active living*
8. *Employment*
9. *Access to Prescriptions/Medications*
10. *Transportation*

*Paying attention to human dignity – that is something that I have seen missing from the system – UVIP Group Participant*

*There are two groups in our community - one of people who are stable and then others who are always in a potential crisis state -financially, chronic health conditions, homeless. – Business Sector Discussion Group Participant*

The chart on the next page displays these top overall regional priorities, as well as the priorities identified by each set of discussion groups.\* Consistent with the findings from the community and key stakeholder surveys, top issues of concern across the region among individuals and families are substance misuse and related access to behavioral health care, access to dental care, and related issues of socioeconomic stressors including lack of affordable housing.

*“We as a community, including the hospitals, need to be invested in the next step.” – UVIP Group Participant*

\*Note: the Upper Valley Interfaith Project discussion group followed a different format that did not include the priority area exercise.

Priority Rank	Overall	Business Leaders	Teenage Mothers	Low Income Families
1	<b>Alcohol &amp; Drug Abuse</b>	Fragile families, family stress	Affordable Housing	Access to Dental care services
2	<b>Income, poverty</b>	Income, poverty	Alcohol & Drug Abuse	Affordable Housing
3	<b>Affordable Housing</b>	Alcohol & Drug Abuse	Fragile families, family stress	Income, poverty
4	<b>Fragile families, family stress</b>	Access to Mental Health/Behavioral Health Care Services	Income, poverty	Alcohol & Drug Abuse
5	<b>Access to Mental Health/Behavioral Health Care Services</b>	Access to Health Insurance	Access to Mental Health/Behavioral Health Care Services	Transportation
6	<b>Access to Dental Care Services</b>	Affordable Housing	Physical Activity, recreational opportunities, active living	Access to Mental Health/Behavioral Health Care Services
7	<b>Physical Activity, recreational opportunities, active living</b>	Access to Prescriptions/Medications	Employment	Diet and nutrition, access to healthy foods
8	<b>Employment</b>	Chronic Diseases, such as heart Disease, Diabetes, Arthritis, Asthma and COPD	Education	Physical Activity, recreational opportunities, active living
9	<b>Access to Prescriptions/Medications</b>	Access to elder care services	Public safety, crime, domestic violence	Employment
10	<b>Transportation</b>	Access to Dental care services	Access to Health Insurance	Access to Prescriptions/Medications

## D. COMMUNITY HEALTH STATUS INDICATORS

This section of the 2015 DH-APD Community Health Needs Assessment report provides information on key indicators and measures of community health status. Some measures that are associated with health status have been included earlier in this report, such as measures of income and poverty. Where possible, statistics are presented specific to the 19 town primary hospital service area. However, some data are only available at the county level.

### 1. Demographics and Social Determinants of Health

A population's demographic and social characteristics, including such factors as prosperity, education, and housing influence its health status. Similarly, factors such as age, disability, language and transportation can influence the types of health and social services needed by communities.

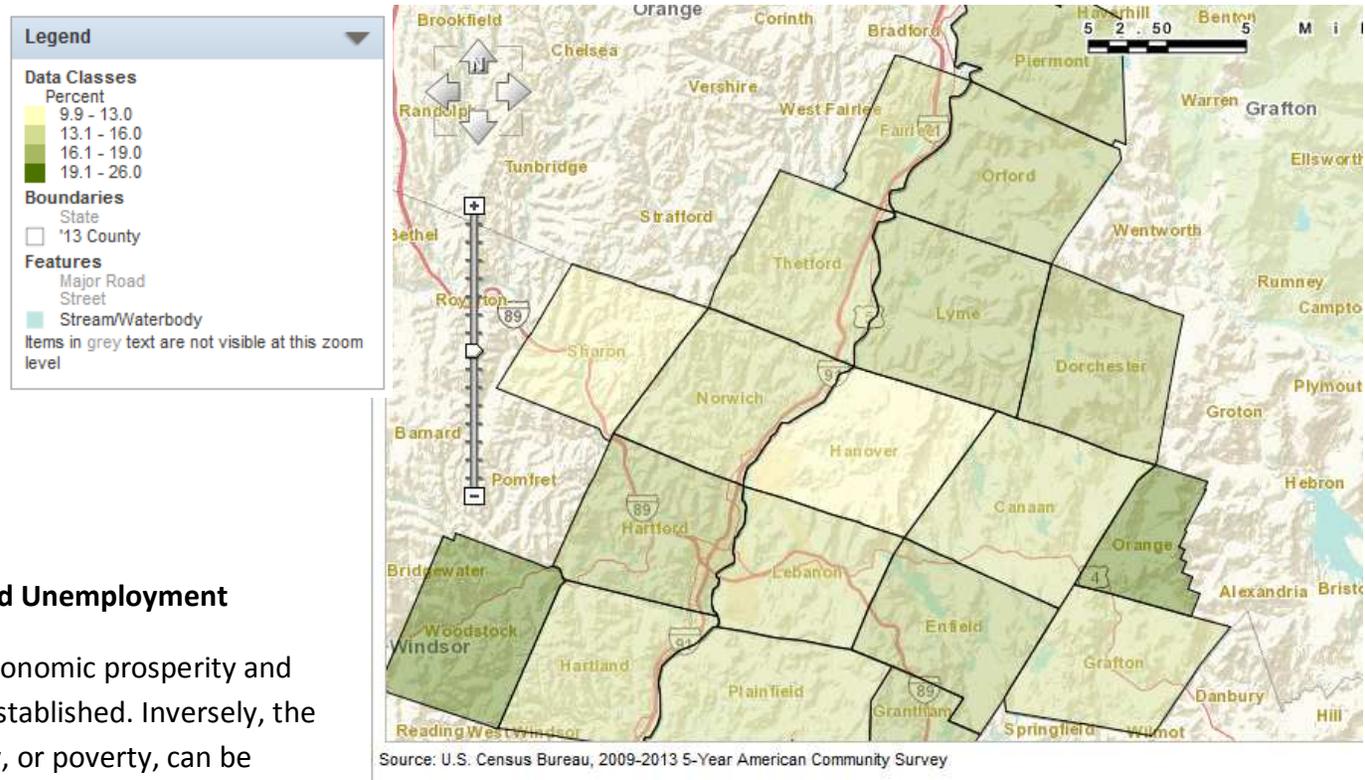
#### a. General Population Characteristics

According to the 2013 American Community Survey, the population of the DH-APD Service Area is slightly older on average than the New Hampshire and Vermont populations. The service area map on the next page displays the percent of the population 65 years of age and older by town. Between 2000 and 2013, the population of the DH-APD Service Area grew more slowly than the New Hampshire population, but at a greater pace than the Vermont population overall.

Indicators	DH-APD Service Area	New Hampshire	Vermont
<b>Population Overview</b>			
<b>Total Population</b>	69,884	1,319,171	625,904
<b>Over age of 65</b>	15.6%	14.2%	15.2%
<b>Under age of 5</b>	4.6%	5.2%	5.0%
<b>Change in population (2000 to 2013)</b>	+5.3%	+6.7%	+2.8%

*Data Source: U.S. Census Bureau, 2009-2013 American Community Survey 5-Year Estimates and 2000 US Census.*

**Percent of Population 65 years of age and older  
DH-APD Service Area Towns**



**b. Income, Poverty and Unemployment**

The correlation between economic prosperity and good health status is well established. Inversely, the lack of economic prosperity, or poverty, can be associated with barriers to accessing health services, healthy food, and healthy physical environments that contribute to good health. Information describing household income and poverty status was included in the first section of this report. The table on the next page presents the proportion of children under age 18 living below the 100% and 200% of the Federal Poverty Level in the DH-APD Service Area compared with rates for New Hampshire and Vermont overall.

Area	Percent of Children in Poverty Income < 100% FPL	Percent of Children in Poverty Income < 200% FPL
<b>DH-APD Service Area</b>	9.7%	27.0%
<b>New Hampshire</b>	11.1%	27.2%
<b>Vermont</b>	14.8%	36.0%

*Data Source: U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates. Accessed using Community Commons.*

Unemployment is measured as the percent of the civilian labor force, age 16 and over that is unemployed, but seeking work. From 2009 – 2013, the unemployment rates in Dorchester, Canaan, and Hartford were higher than both the New Hampshire and Vermont unemployment rates. However, these differences were not statistically significant. This is displayed by the table below.

Area	Percent of the Population Unemployed
Dorchester	13.4%
Canaan	9.2%
Hartford	8.7%
<b>New Hampshire</b>	<b>7.0%</b>
<b>Vermont</b>	<b>6.8%</b>
<b>DH-APD Service Area</b>	<b>6.8%</b>
Fairlee	5.3%
Sharon	5.1%
Lyme	4.6%
Grafton	4.5%
Lebanon	4.5%
Hanover	3.6%*
Piermont	3.1%*
Grantham	2.7%*

Area	Percent of the Population Unemployed
Orford	2.4%*
Enfield	2.3%*
Hartland	2.3%*
Thetford	2.0%*
Plainfield	1.9%*
Woodstock	1.8%*
Norwich	1.7%*
Orange	1.4%*
*Unemployment rate in town is statistically significantly different and lower than that for NH and VT	
<i>Data Source: U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates.</i>	

### c. Education

Educational attainment is also considered a key driver of health status with lower levels of education linked to both poverty and poor health. A higher proportion of the population of the DH-APD Service Area have earned at least a high school diploma or equivalent compared to New Hampshire and Vermont overall. The table below presents data on the percentage of the population aged 25 and older without a high school diploma (or equivalent).

Area	Percent of Population Aged 25+ with No High School Diploma
<b>DHMC/APD Service Area</b>	6.1%
<b>New Hampshire</b>	8.2%
<b>Vermont</b>	8.6%

*Data Source: U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates. Accessed using Community Commons.*

#### d. Language

An inability to speak English well can create barriers to accessing services, communication with service providers, and ability to understand and apply health information (health literacy). The table below reports the percentage of the population aged 5 and older who speak a language other than English at home and speak English less than "very well".

Area	Percent of Population Aged 5+ Who Speak English Less Than "Very Well"
DHMC/APD Service Area	1.6%
New Hampshire	2.5%
Vermont	1.5%

*Data Source: U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates. Accessed using Community Commons.*

#### e. Housing

Housing characteristics, including housing quality and cost burden as a proportion of income, can influence the health of families and communities. The table on the next page presents data on the percentage of housing units that are owner-occupied.

“Substandard” housing units are housing units that have at least one of the following characteristics 1) lacking complete plumbing facilities, 2) lacking complete kitchen facilities, 3) an average of more than one occupant per room, 4) selected monthly owner costs as a percentage of household income greater than 30 percent, and 5) gross rent as a percentage of household income greater than 30 percent.

A component of the substandard housing index is the proportion of income that is spent on housing costs. According to research by the U.S. Department of Housing and Urban development, households that spend more than 30 percent of income on housing costs are less likely to have adequate resources for food, clothing, medical care, or other needs. The table below shows the proportion of households in the region for which the mortgage or rental costs exceed 30% of household income.

Area	Percent of Housing Units That Are Owner-Occupied	Percent of Housing Units Categorized As “Substandard”	Percent of Households with Housing Costs $\geq$ 30% of Household Income
DH-APD Service Area	69.2%	32.7%	36.9%
New Hampshire	74.9%	36.6%	42.4%
Vermont	71.0%	36.4%	42.6%

*Data Source: Owner-Occupied Housing Units/Housing Costs (among households with a mortgage or rent): U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates; Sub-standard Housing and Housing Cost Burden data accessed from Community Commons.*

**f. Transportation**

Individuals with limited transportation options also have limited employment options, greater difficulty accessing services, and more challenges to leading independent, healthy lives. The next table presents data on the percent of households that have no vehicle available.

Area	Percent of Households with No Vehicle Available
DH-APD Service Area	6.5%
New Hampshire	5.2%
Vermont	6.6%

*Data Source: U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates. Accessed using Community Commons.*

**g. Disability Status**

Disability is defined as the product of interactions among individuals’ bodies; their physical, emotional, and mental health; and the physical and social environment in which they live, work, or play. Disability exists where this interaction results in limitations of activities and restrictions to full participation at school, at work, at home, or in the community. The US Census Bureau (American Community Survey) identifies people reporting serious difficulty with four basic areas of functioning – hearing, vision, cognition, and ambulation. According to the 2013 American Community Survey, 11.1% of DH-APD Service Area residents report having at least one disability, a rate that is slightly lower than the overall New Hampshire and Vermont rates.

Area	Percent of Population Reporting Serious Difficulty With Hearing, Vision, Cognition and/or Ambulation
<b>DH-APD Hospital Service Area</b>	11.1%
<b>New Hampshire</b>	11.6%
<b>Vermont</b>	13.3%

*Data Source: U.S. Census Bureau, 2009 – 2013 American Community Survey 5-Year Estimates. Accessed using Community Commons.*

## 2. Health Promotion and Disease Prevention

Adopting healthy lifestyle practices and behaviors can prevent or control the effects of disease and injury. For example, regular physical activity not only builds fitness, but helps to maintain balance, promotes relaxation, and reduces the risk of disease. Similarly, eating a healthy diet rich in fruits, vegetables and whole grains can reduce risk for diseases like heart disease, certain cancers, diabetes, and osteoporosis. This section explores health behaviors that can promote health and prevent disease.

### a. Fruit and Vegetable Consumption

The table below reports the percentage of adults aged 18 and older who self-report consuming less than 5 servings of fruits and vegetables each day. Unhealthy eating habits contribute to significant health issues such as obesity and diabetes.

Area	Percent of Adults Consuming Few Fruits or Vegetables
DH-APD Hospital Service Area	69.5%
New Hampshire	71.6%
Vermont	69.9%

*Data Source: Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2005, 2007, 2009. Accessed using Community Commons.*

### b. Access to Healthy Foods

Lack of access to supermarkets can contribute to low fruit and vegetable consumption. Access may be limited by distance as well as by lack of transportation. The USDA Food Access Research Atlas classifies two census tracts in the Dartmouth Hitchcock / Alice Peck Day Hospital Service Area as having limited access to supermarkets based on the characteristic of having more than 100 households without a vehicle and that are located more than a half mile from the nearest supermarket. These tracts are: Lebanon, NH Census



### c. Physical Inactivity

Lack of physical activity can lead to significant health issues such as obesity and poor cardiovascular health. The table below reports the percentage of adults aged 20 and older who self-report no leisure time physical activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?". Almost than 1 in 5 adults in the D-APD service area can be considered physically inactive on a regular basis – rates similar to the New Hampshire and Vermont rates.

Area	Physically Inactive in the Past 30 Days
DH-APD Hospital Service Area	18.9%
New Hampshire	20.2%
Vermont	18.3%

*Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 2012. Accessed from Community Commons.*

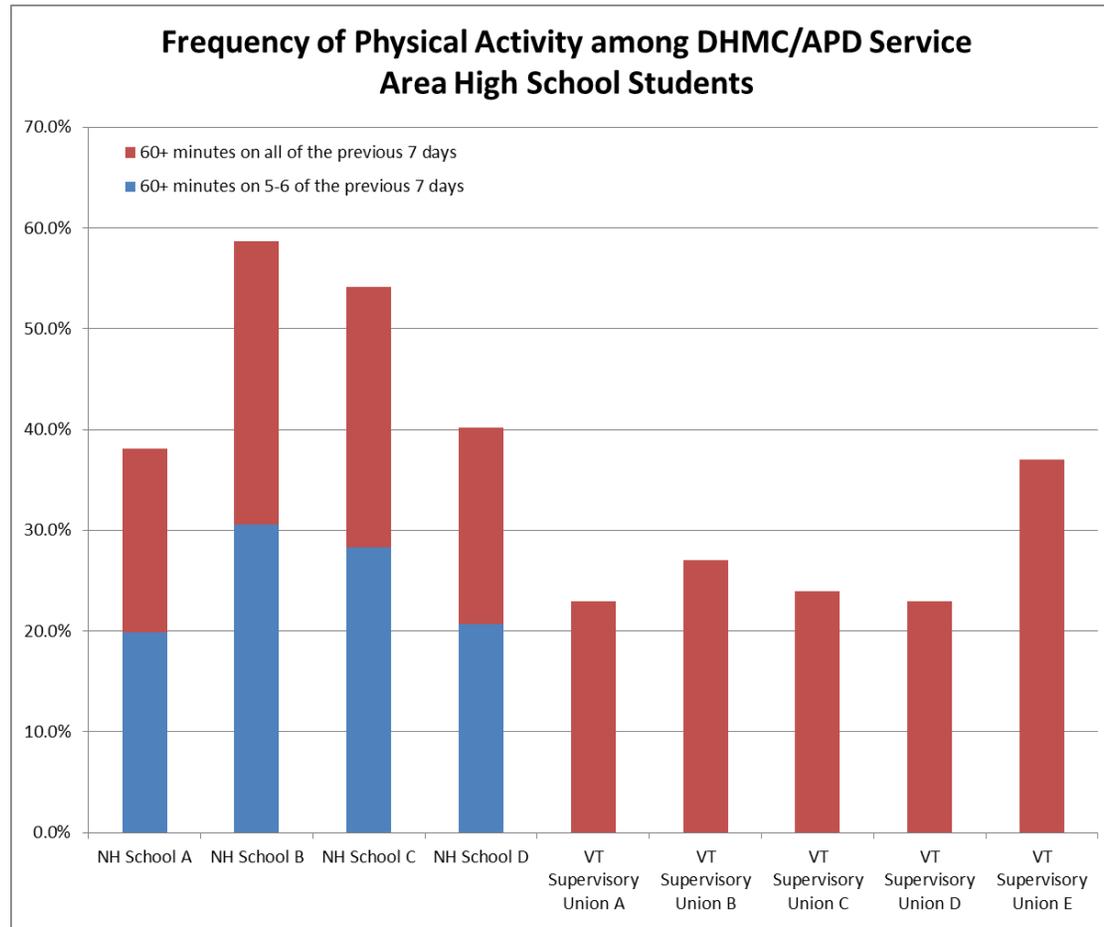
The Youth Risk Behavior Survey (YRBS) asks high school students how many of the previous 7 days they were physically active for a total of at least 60 minutes. Four NH schools with students from towns in the Service Area and 5 VT supervisory unions with students from towns in the Service Area participated in the survey in 2013. The table and graph on the next page present data from the 2013 YRBS on the proportion of high school students from the service area that report exercising for 60+ minutes on at least five of the seven days prior to the taking the survey.

School	Physically Active 60+ Minutes Per Day on 5+ of the Previous 7 Days	Physically Active 60+ Minutes per Day on All 7 of the Previous 7 Days
NH School A	38.1%*	17.9%*
NH School B	58.7%*	28.1%*
NH School C	54.2%*	25.9%*
NH School D	40.2%*	19.5%*
<b>NH</b>	<b>47.0%</b>	<b>22.9%</b>
VT Supervisory Union A	n/a	23%*
VT Supervisory Union B	n/a	27%
VT Supervisory Union C	n/a	24%
VT Supervisory Union D	n/a	23%
VT Supervisory Union E	n/a	37%*
<b>VT</b>	<b>n/a</b>	<b>25.4%</b>

Data Source: Centers for Disease Control and Prevention. 2013 Youth Risk Behavior Survey.

\* Rate is statistically different than the respective state rate.

In addition, a majority of students in most schools (range 39%-91%% depending on school) said that they had zero days of physical education classes during the average school week.



#### d. Pneumonia and Influenza Vaccinations (Adults)

The next table shows the percentage of adults aged 65+ who self-report that they received influenza vaccine in the past year or have ever received a pneumonia vaccine. In addition to measuring the population proportion receiving preventive vaccines, this indicator can also highlight a lack of access to preventive care, opportunities for health education, or other barriers preventing utilization of services.

Area	Adult Immunization Rates	
	Pneumococcal Vaccination Adults Aged 65+	Influenza Vaccination Adults Aged 65+
DH-APD Hospital Service Area	71.0%	N/A
Grafton County, NH	72.9%	62.6%
Sullivan County, NH	69.5%	54.6%
Orange County, VT	70.7%	55%*
Windsor County, VT	68.2%	68%
New Hampshire	72.0%	58.6%
Vermont	71.2%	64%

*Data Source: Pneumococcal Vaccination: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006 - 2012. Accessed from Community Commons. Influenza Vaccination: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2011-2012. VT data accessed at [healthvermont.gov](http://healthvermont.gov). NH data accessed using NH HealthWRQS. \*Rate is significantly different than the overall VT rate.*

**e. Cancer Screening**

Evidence suggests that cancer screening appropriate to age can reduce cancer mortality. Cancer screening rates can also reflect degree of access to preventive care, levels of health knowledge, insufficient outreach, and/or the degree to which social barriers preventing utilization of services. The table below reports the percentage of women aged 18 and older who report that they have had a Pap test in the past three years from 2006-2012.

Area	Percent of Women Who Have Had a Recent Pap Test
	2006 – 2012
DH-APD Hospital Service Area	78.0%
New Hampshire	79.5%
Vermont	79.0%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-2012. Accessed using Community Commons.*

The table below reports the percentage of adults 50 and older who self-report that they have ever had a sigmoidoscopy or colonoscopy 2006-2012.

Area	Percent of Adults Aged 50 Or Older Ever Screened For Colon Cancer
	2006 – 2012
DH-APD Hospital Service Area	66.8%
New Hampshire	69.7%
Vermont	66.9%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System 2006 – 2012. Accessed using Community Commons.*

The table below reports the percentage of female Medicare enrollees, age 67-69, who have received one or more mammograms in the past two years.

Area	Percent of Medicare Enrollees Aged 67 - 69 Recently Screened For Breast Cancer 2012
DH-APD Hospital Service Area	71.1%
New Hampshire	70.7%
Vermont	69.5%

*Data Source: Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care. 2012. Accessed using Community Commons.*

#### **f. Adult Substance Abuse**

Substance abuse, involving alcohol, illicit drugs, misuse of prescription drugs, or combinations of all of these behaviors, is associated with a complex range of negative consequences for health and wellbeing of individuals, families and communities. In addition to contributing to both acute and chronic disease and injury, substance abuse is associated with destructive social conditions, including family dysfunction, lower prosperity, domestic violence and crime.

The Behavior Risk Factor Surveillance Survey asks adults about the frequency of their use of alcohol by asking, “During the past 30 days, on the days when you drank, about how many drinks did you drink on the average?” One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor.

The table on the next page presents data on binge drinking rates. Binge drinking is defined as drinking 5 or more drinks on an occasion for men, or 4 or more drinks on an occasion for women.

Area	Engaged in Binge Drinking in Past 30 days, Percent of Adults
	2011-2012
Grafton County, NH	18.2%
Sullivan County, NH	15.2%
Orange County, VT	17%
Windsor County, VT	17%
New Hampshire	18.6%
Vermont	19%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2011-2012. VT data accessed at healthvermont.gov. NH data accessed using NH HealthWRQS.*

The next table presents data on heavy alcohol use (data only available at the state level). Men are considered heavy drinkers if they report having more than 2 drinks per day. Women are considered heavy drinkers if they report having more than 1 drink per day.

Area	Heavy Alcohol Use, Percent of Adults
	2012
New Hampshire	7.2%
Vermont	8%

*Data Source: Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2012. NH data accessed using NH HealthWRQS VT data accessed at healthvermont.gov; 2012 BRFSS Data Summary.*

The rate of utilization of the emergency department for substance abuse-related conditions can indicate a variety of concerns including prevalence of substance abuse in the community, community norms, and limited access to treatment. The rate of emergency department utilization for substance abuse related mental health conditions by residents of the NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Areas was significantly lower than the overall New Hampshire rate in 2009 (most current information available).

Substance Abuse-Related Mental Health Condition* ED Visits and Observation Stays (per 100,000 people)	
Area	Overall, Age Adjusted
DH-APD Hospital Service Area (includes NH municipalities in HSA only)	429.5**
New Hampshire	966.8

*Data Source: NH DHHS Hospital Discharge Data Collection System, 2009. Accessed using NH HealthWRQS. \*Resident ED visits with any diagnosis of a mental health disorder for substance abuse (ICD 9CM code 291, 292, 304, 305, excluding 305.1). \*\*Rate is statistically different and lower than the overall NH rate.*

The table below presents data on the rate of inpatient hospitalizations for Neonatal Abstinence Syndrome (NAS). NAS is a postnatal drug withdrawal syndrome of newborns caused by maternal drug use, primarily prescription opiate abuse. Infants are diagnosed with NAS shortly after birth based on a history of drug exposure, lab testing (maternal drug screen or infant testing of urine, meconium, hair, or umbilical samples), and clinical signs (symptom rating scale). Symptoms may include increased irritability, feeding problems, watery stools, increased muscle tone, tremors, seizures, and/or breathing problems shortly after birth.

Neonatal Abstinence Discharges*, 2006-2009 (per 1,000)	
Area	Overall, Age Adjusted
<b>DH-APD Hospital Service Area</b> (includes NH municipalities in HSA only)	5.3
<b>New Hampshire</b>	6.7

*Data Source: Bureau of Data and Systems Management (BDSM), Office of Medicaid Business and Policy (OMBPP), Office of Health Statistics and Data Management (HSDM), Bureau of Public Health Statistics and Informatics (BPHSI), New Hampshire Department of Health and Human Services (NH DHHS), 2009. \*Resident ED discharges with diagnosis (ICD 9CM code 779.5).*

### **g. Youth Substance Abuse**

The table on the next page presents data collected in the Youth Risk Behavior Survey (YRBS) on the proportion of high school students from the DH-APD Service Area who reported ever using various substances (listed in the left column). Four NH schools with students from towns in the Service Area and 5 VT supervisory unions with students from towns in the Service Area participated in the survey in 2013.

Percent of Students Reporting They Ever Used Substance											
	NH School A	NH School B	NH School C	NH School D	NH	VT Supervisory Union A	VT Supervisory Union B	VT Supervisory Union C	VT Supervisory Union D	VT Supervisory Union E	VT <sup>5</sup>
<b>Alcohol<sup>1</sup></b>	59.1%	57.7%*	59.8%	59.4%	61.4%	57%	60%	62%	55%	63%	-
<b>Marijuana</b>	42.8%	32.0%*	38.3%	42.4%	39.9%	22%	42%	37%	41%	40%	-
<b>Synthetic Marijuana<sup>2</sup></b>	16.6%	9.0%	17.3%	9.5%	-	-	-	-	-	-	-
<b>Prescription Drugs Without Prescription<sup>3</sup></b>	13.8%*	14.4%	15.8%	15.9%	16.5%	11%	13%	12%	16%	13%	-
<b>Cocaine</b>	4.3%	5.5%	7.9%*	7.0%*	4.9%	-	4%*	4%*	6%	3%*	6.3%
<b>Inhalants</b>	10.0%*	6.7%	7.9%	8.9%	8.0%	7%	6%*	7%*	8%	8%	8.4%
<b>Ecstasy<sup>1</sup></b>	4.0%*	5.1%*	3.0%*	9.2%	7.4%	-	-	-	-	-	-
<b>Heroin</b>	2.0%	2.0%	5.0%*	3.2%	2.7%	-	2%	1%*	3%	3%	3.1%
<b>Methamphetamines</b>	3.3%	2.6%	3.0%	3.9%	2.9%	3%	2%*	2%*	4%	-	3.6%
<b>Hallucinogenic Drugs<sup>4</sup></b>	-	-	-	-	-	-	12%	10%	9%	9%	-

Data Source: Centers for Disease Control and Prevention. 2013 Youth Risk Behavior Survey.

\* Rate is statistically different than the respective state rate.

<sup>1</sup>NH data can be interpreted as the percent of students who reported that they have had at least one drink of alcohol or 1+ days of their life. VT data can be interpreted as the percent of students who reported that they never had a drink of alcohol other than a few sips.

<sup>2</sup>Only asked in NH

<sup>3</sup>In NH, students were asked how many times they have taken prescription drugs without a doctor's prescription. In VT, students were asked how many times they have taken a prescription pain reliever not prescribed to them.

<sup>4</sup>Only asked in VT

<sup>5</sup>VT data is not available from the CDC for some indicators due to variation from the standard CDC questions.

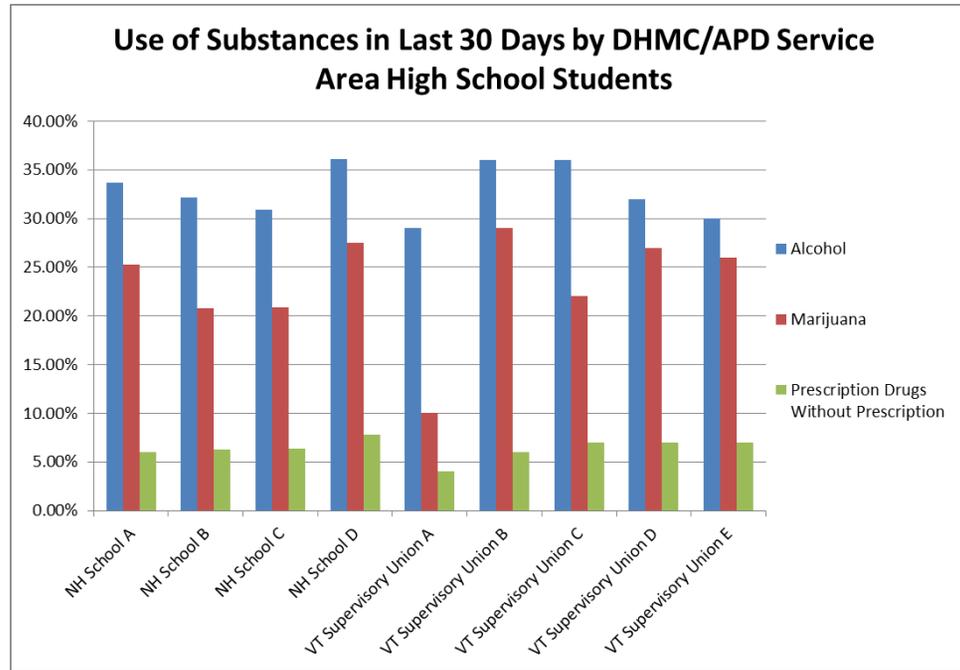
The table and graph below present data from the 2013 YRBS on the proportion of high school students from the service area who report using alcohol, marijuana or prescription medications without a prescription in the past 30 days. As displayed by the chart, youth from 3 of the Vermont Supervisory Unions reported lower rates of current alcohol use than the overall Vermont rate.

Percent of Students Reporting Any Use of Substance In Last 30 Days			
School	Alcohol	Marijuana	Prescription Drugs Without Prescription <sup>1</sup>
NH School A	33.7%	25.3%	6.0%
NH School B	32.2%	20.8%*	6.3%
NH School C	30.9%	20.9%*	6.4%
NH School D	36.1%	27.5%*	7.8%
<b>NH</b>	<b>32.9%</b>	<b>24.4%</b>	<b>-</b>
VT Supervisory Union A	29%*	10%*	4%
VT Supervisory Union B	36%	29%*	6%
VT Supervisory Union C	36%	22%*	7%
VT Supervisory Union D	32%*	27%	7%
VT Supervisory Union E	30%*	26%	7%
<b>VT</b>	<b>34.9%</b>	<b>25.7%</b>	<b>-</b>

Data Source: Centers for Disease Control and Prevention. 2013 Youth Risk Behavior Survey. State-level prescription drug use data from NH Department of Education website. No confidence intervals available.

\* Rate is statistically different than respective state rate.

<sup>1</sup> In NH, students were asked how many times they have taken prescription drugs without a doctor's prescription in the past 30 days. In VT, students were asked how many times they have taken a prescription pain reliever not prescribed to them in the last 30 days.



### h. Cigarette Smoking

Tobacco use is a primary contributor to leading causes of death such as lung cancer, respiratory disease and cardiovascular disease. The table on the right reports the percentage of adults aged 18 and older who self-report currently smoking cigarettes some days or every day. Between 2006 and 2012, about one in six adults in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Area were current smokers.

Area	Percent of Adults Who Are Current Smokers
	2006 - 2012
DH-APD Hospital Service Area	17.8%
New Hampshire	17.1%
Vermont	16.8%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006 - 2012. Accessed using Community Commons.*

The table below presents data from the 2013 YRBS on the proportion of high school students from the Hospital Service Area who report that they are current smokers. Reported smoking rates were higher in three of the four NH schools with students from towns in the Service Area compared to the overall state rate in 2013.

School	Current Smoker (1+ day/month)	Frequent Smoker (20+ days/month)	Frequent Smoker (All 30 days/month)
NH School A	14.3%	6.3%	5.1%
NH School B	20.1%*	3.0%*	2.1%
NH School C	21.8%*	5.4%	4.0%
NH School D	16.5%*	7.6%*	5.5%
<b>NH</b>	<b>13.8%</b>	<b>5.5%</b>	<b>-</b>
VT Supervisory Union A	11%	-	4%
VT Supervisory Union B	12%	-	4%
VT Supervisory Union C	18%	-	6%
VT Supervisory Union D	12%	-	3%
VT Supervisory Union E	9%	-	4%
<b>VT</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>Data Source: Centers for Disease Control and Prevention. 2013 Youth Risk Behavior Survey.</i>			
<i>* Rate is statistically different and higher than the respective state rate.</i>			

**i. Teen Birth Rate**

Teen pregnancy is closely linked to economic prosperity, educational attainment, and overall infant and child well-being. The teen birth rate in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Area was estimated to be 9.4 per 1,000 women aged 15 – 19 in the 2009 – 2013 time period, which is lower than the New Hampshire or Vermont overall state rates.

Area	Teen Birth Rate per 1,000 Women Age 15-19
<b>DH-APD Service Area</b>	9.4
<b>New Hampshire (2014)</b>	11.0
<b>Vermont (2013)</b>	15.0

*Data Sources: American Community Survey 2009 – 2013. Annie E. Casey Kids Count Data Center, accessed October 2015.*

### 3. Illness and Injury

Traditional measures of population health status focus on rates of illness or disease (morbidity) and death (mortality) from specific causes. Advances in public health and medicine through the 20th century have reduced infectious disease and complications of child birth as major contributors to or causes of death and disease. Chronic diseases, such as heart disease, cancer, respiratory disease and diabetes, along with injury and violence, are now the primary burdens on the health and wellbeing of individuals, families and communities. In addition to considering the absolute magnitude of specific disease burdens in a population, examination of disparities in disease rates can help to identify areas of need and opportunities for intervention.

#### a. Premature Mortality

An overall measure of the burden of disease is premature mortality. The indicator below expresses premature mortality as the rate of death, regardless of cause, where age is less than 75 years or less than 65 years at the time of death. The data shown in the table below are from the period 2008 and 2010 (the most current information available). The rate of premature death for residents of NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Areas under 65 years of age was significantly lower than the rate for New Hampshire overall.

Premature Mortality		
Area	Deaths per 100,000 People Under Age 75	Deaths per 100,000 People Under Age 65*
DH-APD Service Area	324.4	123.8*
New Hampshire	307.2	160.9
Vermont	321.5	NA

*Data Source: People under age 75: University of Wisconsin Population Health Institute, County Health Rankings. Centers for Disease Control and Prevention, National Vital Statistics System. 2008-2010. People under age 65: NH Division of Vital Records Administration Death Certificate Data, 2008-2010. Accessed using NH HealthWRQS. \*Rate is calculated for NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Areas, and is significantly different from and lower than the overall NH rate.*

**b. Overweight and Obesity**

Being overweight or obese can indicate an unhealthy lifestyle that puts individuals at risk for a variety of significant health issues including hypertension, heart disease and diabetes. The indicators below report the percentage of adults aged 18 and older who self-report that they have a Body Mass Index (BMI) greater than 30.0 (obese) or greater than 25.0 (overweight or obese).

Area	Percent of Adults Obese	Percent of Adults Overweight or Obese
DH-APD Service Area	25.6%	60.5%
New Hampshire	26.9%	62.0%
Vermont	24.1%	59.5%

*Data source: Behavioral Risk Factor Surveillance System 2011-2012. Hospital Service Area estimates from Community Commons.*

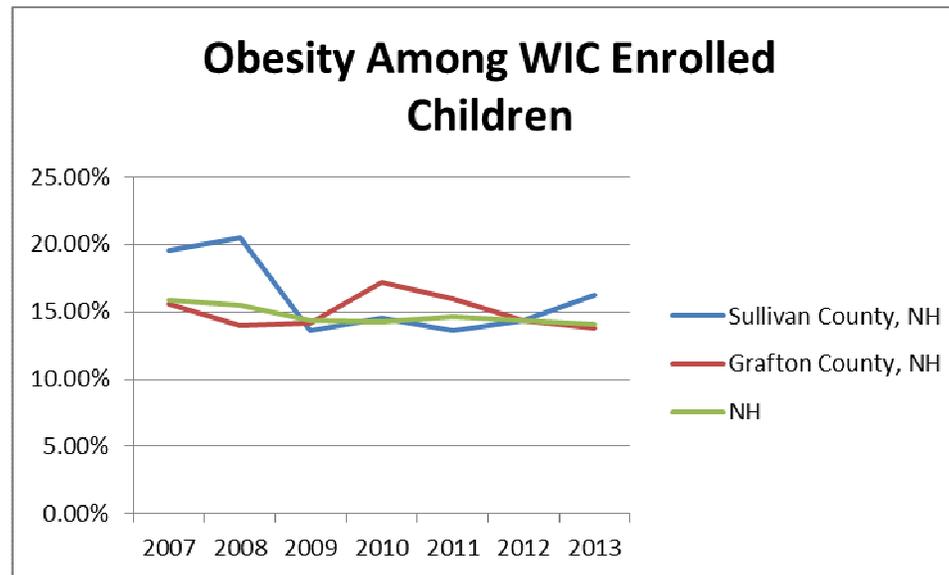
Children who are overweight and obese suffer both short- and long-term impacts. In addition, children who are obese are likely to be obese as adults. The table below presents data on the proportion of WIC-enrolled children ages 2 – 4 who were classified as obese in Grafton and Sullivan Counties, compared with New Hampshire for 2013. It also includes data on the percent of WIC enrolled children in Vermont (ages 2 – 5) who were classified as obese in 2011.

Area	Percent of WIC-enrolled Children Who Are Obese
Grafton County, NH (2013)	13.8%
Sullivan County, NH (2013)	16.3%
New Hampshire( 2013)	12.6%
Vermont (2011)	13.0%

*Data Source: New Hampshire WIC Enrollees: NH WIC Agencies, 2013. Accessed from NH WISDOM. NH county rates are not statistically different than the overall NH rate.*

*Vermont WIC Enrollees: Accessed from healthvermont.gov.*

The graph below presents trend data from NH Wisdom on the proportion of WIC-enrolled children who are obese in Sullivan County and Grafton Counties, compared with New Hampshire. While there no statistically significant change in obesity rates has been detected at the county level, state level rates of obesity for WIC enrolled children declined significantly from 15.9% in 2007 to 14.1% in 2013.



The table on the next page presents 2013-2014 data on the proportion of the third graders who are obese in Grafton County, NH and Sullivan County, NH, compared with New Hampshire overall. A higher proportion of third graders in Grafton and Sullivan Counties could be classified as obese than for New Hampshire overall. New Hampshire has registered statistically significant decreases in the proportion of third graders who are obese, with rates falling from 18.0% in 2009 to 12.6% in 2014 (no county-level trend data is available for this indicator).

Area	Percent of 3 <sup>rd</sup> Graders Who Are Obese
Grafton County, NH	15.9*
Sullivan County, NH	17.4%*
New Hampshire	12.6%

*Data Source: 2013-2014 NH Department of Health and Human Services Third Grade Healthy Smiles Healthy Growth Survey. Accessed from NH WISDOM. \*The proportion of third-graders who are obese is significantly different and higher in Sullivan and Grafton Counties compared to the New Hampshire rate.*

**c. Oral Health**

Tooth decay is the most common chronic childhood disease. While good oral health contributes to overall well-being and quality of life, poor oral health can have negative impacts of diet, psychological status, and school and work life, and is associated with diseases such as diabetes, cardiovascular disease, stroke and adverse pregnancy outcomes.

According to the 2013-2014 NH Department of Health and Human Services Third Grade Healthy Smiles Healthy Growth Survey, third graders in Sullivan County have significantly higher rates of tooth decay experience and treated tooth decay that third graders statewide. A higher proportion of Grafton County third graders had treated and untreated decay and needed treatment compared with third graders statewide (NH). In Sullivan County, a lower proportion of third graders had unmet treatment needs, however, a higher proportion had urgent treatment needs compared with NH third graders overall. Finally, a significantly higher proportion of Sullivan County third graders have received dental sealants. The Vermont Department of Health reported on a statewide Oral Health Survey (2014) that 11% of Vermont children aged 6 – 9 had untreated dental decay and were in need of treatment. The survey was a statewide random sample and sub-state service area estimates are not available.

	Percent of Third Graders			
	Grafton County, NH	Sullivan County, NH	New Hampshire	Vermont
<b>Decay experience</b>	43.1%*	45.5%*	35.4%	35%
<b>Untreated decay</b>	11.7%*	6.8%	8.2%	11%
<b>Treated decay</b>	37.9%*	41.6%*	31.8%	
<b>Need treatment</b>	10.9%*	6.1%**	8.1%	11%
<b>Need urgent treatment</b>	0.8%	1.8%*	1.0%	2%
<b>Dental sealants</b>	61.6%	91.3%*	60.9%	52%

Data Source: 2013-2014 NH Department of Health and Human Services Third Grade Healthy Smiles Healthy Growth Survey. Accessed <http://www.dhhs.nh.gov/dphs/bchs/rhpc/oral/>. \*Statistically different and higher than the overall NH rate. \*\* Statistically different and lower than the overall NH rate. Vermont data from "Keep Smiling Vermont: The Oral Health of Vermont's Children, 2013-2014. Accessed at [healthvermont.gov](http://healthvermont.gov)

The table below presents data on the rate of emergency department utilization for dental diagnoses for residents of NH municipalities in the DH-APD service area, compared with New Hampshire. Use of emergency departments for dental care can indicate lack of access to preventive and curative dental care and is an indicator of poor dental health. The rate of dental ED discharges is significantly lower for residents of NH municipalities in the service area than for New Hampshire overall.

Area	Dental ED Discharges, Age Adjusted*
<b>DH-APD Service Area</b> (NH Municipalities)	91.8**
<b>New Hampshire</b>	127.6

Data Source: Bureau of Data and Systems Management (BDSM), Office of Medicaid Business and Policy (OMBP), Office of Health Statistics and Data Management (HSDM), Bureau of Public Health Statistics and Informatics (BPHSI), New Hampshire Department of Health and Human Services (NH DHHS), 2009. \*Resident ED discharges with dental diagnosis (ICD 9CM code 521, 522, 523, 525, 528 ). \*\*Rate is significantly different and lower than the overall NH rate.

**d. Cancer**

Cancer is the leading cause of death in New Hampshire and Vermont and is the second leading cause of death for residents of NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Area. Although not all cancers can be prevented, risk factors for some cancers can be reduced. According to the New Hampshire State Health Improvement Plan, nearly two-thirds of cancer diagnoses and deaths in the US can be linked to behaviors, including tobacco use, poor nutrition, obesity, and lack of exercise. The table below shows cancer incidence rates by site group for the cancer types that account for the majority of cancer deaths and new cases.

	New Cancer Cases (per 100,000 people), Age Adjusted		
	DH-APD Service Area	New Hampshire	Vermont
<b>All cancers (NH: 2008; VT: 2008-2012)</b>	467.9 (NH municipalities only)	481.2	461.9
<b>2007 – 2011 Data</b>			
<b>Prostate</b>	131.5	151.7	133.4
<b>Breast (female)</b>	122.4	134.1	129.1
<b>Lung and bronchus</b>	64.4	69.4	69.5
<b>Colorectal</b>	35.8	41.3	39.8
<b>2008 – 2012 Data</b>			
<b>Melanoma of skin</b>	Not available	26.7	29.0
<b>Bladder</b>	Not available	29.4	23.9

*Data Source: All cancers: NH State Cancer Registry, 2008; Vermont: Age Adjusted Cancer Incidence Rates, 2008-2012, accessed from healthvermont.gov. Site-specific data: State Cancer Profiles, 2007 – 2011 and 2008-2012. Hospital service area estimates from Community Commons.*

*Cancer Mortality:* The table below shows overall cancer mortality rates for the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Areas, as well as site specific cancer death rates for New Hampshire and Vermont.

	Cancer Deaths (per 100,000 people), Age Adjusted		
	DH-APD Service Area	New Hampshire	Vermont
<b>All cancers (2009 – 2013)</b>	159.3	168.7	171.2
<b>2008 – 2012 Data</b>			
<b>Colorectal</b>	Not available	14.4	14.7
<b>Lung and bronchus</b>	Not available	48.7	49.5
<b>Breast (female)</b>	Not available	20.4	18.7
<b>Prostate</b>	Not available	20.8	22.4
<b>Bladder</b>	Not available	5.0	5.7
<b>Melanoma of skin</b>	Not available	2.8	3.0

*Data Source: All Cancers: Centers for Disease Control and Prevention, National Vital Statistics System, 2009 – 2013. Health Service Area estimates by Community Commons. Cancer Deaths by Site: State Cancer Profiles 2008-2012.*

**e. Heart Disease**

Heart disease is the second leading cause of death in New Hampshire and Vermont, and is the leading cause of death for residents of NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Areas. Heart disease is closely related to unhealthy weight, high blood pressure, high cholesterol, and substance abuse including tobacco use.

Area	Percent of Adults with Heart Disease
<b>DH-APD Service Area</b>	4.1%
<b>New Hampshire</b>	3.9%
<b>Vermont</b>	4.0%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2011-2012. Accessed using Community Commons.*

*Heart Disease Prevalence:* The table to the right reports the percentage of adults aged 18 and older who have ever been told by a doctor that they have coronary heart disease or angina.

**Cholesterol Screening and High Cholesterol:** High levels of total cholesterol and low density lipoprotein-cholesterol (LDL-C) and low levels of high density lipoprotein-cholesterol (HDL-C) are important risk factors for coronary heart disease. Periodic cholesterol screening for adults, particularly those with other risk factors, is a beneficial procedure for early identification of heart disease that can be treated with preventive therapy. The tables to the right and below display the proportion of adults who report that they have had their cholesterol levels checked at some point within the past 5 years and the percent of adults with high cholesterol.

Area	Percent of Adults Who Have Had Cholesterol Levels Checked Within Past 5 Years
Grafton County, NH	73.9%
Sullivan County, NH	81.0%
Orange County, VT	74.0%
Windsor County, VT	76.0%
New Hampshire	81.0%
Vermont	76.0%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2011. NH data (2011) accessed using NH HealthWRQS. VT data (2011, 2013) accessed using healthvermont.gov. County rates are not significantly different from the state rate for NH or VT.*

Area	Percent of Adults With High Cholesterol
DH-APD Service Area	35.5%
Grafton County, NH	35.2%
Sullivan County, NH	40.0%
Orange County, VT	31.7%
Windsor County, VT	35.7%
New Hampshire	39.2%
Vermont	36.0%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2011. Accessed via Community Commons.*

*Heart Disease Morbidity and Mortality:* The rate of inpatient hospital utilization due to heart disease is lower for residents of NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Area compared to the New Hampshire population overall, while the rate of emergency department utilization due to heart disease is similar. The rate of death due to heart disease in the service area is not statistically different than for NH or VT overall during time period for which data is available.

Area	Heart Disease Inpatient Discharges, Age Adjusted	Heart Disease ED Visits and Observation Stays, Age Adjusted
<b>DH-APD Service Area</b> (NH Municipalities)	147.2*	36.8
<b>New Hampshire</b>	271.5	49.9

*Data Source: NH DHHS Hospital Discharge Data Collection System, 2008-2009. Accessed using NH HealthWRQS. \*Rate is statistically different than the overall NH rate.*

Area	Coronary Heart Disease Deaths (per 100,000 people), Age Adjusted
<b>Grafton County, NH</b>	88.0
<b>Sullivan County, NH</b>	120.7
<b>Orange County, VT</b>	178.8
<b>Windsor County, VT</b>	121.3
<b>New Hampshire</b>	97.7
<b>Vermont</b>	155.8

*Data Source: New Hampshire: NH Division of Vital Records death certificate data, 2013. Accessed using NH WISDOM; Vermont: 2009, Accessed using healthvermont.gov . NH county rates are not statistically different than the overall NH rate.*

**f. Diabetes**

Diabetes is an increasingly prevalent chronic health condition that puts individuals at risk for further health complications, but is also amenable to control through diet and adequate clinical care.

*Diabetes Prevalence:* This indicator reports the percentage of adults aged 20 and older who have ever been told by a doctor that they have diabetes.

*Diabetes-related Morbidity and Mortality:* The rate of emergency department utilization due to diabetes in the NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Areas is significantly lower than the New Hampshire rate overall. As shown by the tables on the next page, Inpatient utilization resulting from diabetes and the rate of diabetes related deaths are also significantly lower for residents of NH municipalities located in the service area compared to the New Hampshire population overall.

Area	Percent of Adults with Diabetes, Age Adjusted
DH-APD Service Area	Not available
Grafton County, NH	7.8%
Sullivan County, NH	8.0%
Orange County, VT	6.0%
Windsor County, VT	6.4%
New Hampshire	8.1%
Vermont	6.7%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2012. Accessed via Community Commons.*

Diabetes ED Visits and Observation Stays (per 100,000 people)	
Area	Overall, Age Adjusted
DH-APD Service Area (NH municipalities)	37.1*
New Hampshire	150.2

*Data Source: NH DHHS Hospital Discharge Data Collection System, 2008-2009. Accessed using NH HealthWRQS. \*Rate is statistically different and lower than the overall NH rate.*

Diabetes and Diabetes-Related Inpatient Utilization (per 100,000 people), Overall, Age-Adjusted			
Area	Diabetes Inpatient Discharges	Diabetes-Related Inpatient Discharges	Diabetes-Related Lower Extremity Amputation Inpatient Discharges
DH-APD Service Area (NH municipalities)	60.7*	823.8*	16.1
New Hampshire	99.0	1,380.2	16.4

Data Source: NH DHHS Hospital Discharge Data Collection System, 2008-2009. Accessed using NH HealthWRQS.

\*Rate is statistically different and lower than the overall NH rate.

Deaths Due to Diabetes or Diabetes as an Underlying Cause (per 100,000 people, age adjusted)		
Area	Diabetes Deaths	Diabetes Underlying Cause and Related Deaths
DH-APD Service Area (NH municipalities)	11.9	42.1*
New Hampshire	16.2	60.5
Vermont	19.0	Not available

Data Source: NH Division of Vital Records death certificate data, 2009-2010. Accessed using NH HealthWRQS. \*Rate is statistically different and lower than the overall NH rate. Vermont: 2009, Accessed using [healthvermont.gov](http://healthvermont.gov)

**g. Asthma**

Asthma is also an increasingly prevalent condition that can be exacerbated by poor environmental conditions.

*Asthma Prevalence:* This indicator reports the percentage of adults aged 18 and older who self-report that they currently have asthma.

*Asthma-related Emergency Department Use:* The rate of utilization of the emergency department for asthma care can indicate a variety of concerns including poor environmental conditions, limited access to primary care, and difficulties with asthma self-management skills. The rate of emergency department utilization for asthma care by residents of the NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Areas was significantly lower than the overall New Hampshire rate during the period 2008 and 2009 (the most current information available).

Area	Percent Adults with Asthma
Grafton County, NH	12.5%
Sullivan County, NH	10.4%
Orange County, NH	11%
Windsor County, NH	10%
New Hampshire	10.1%
Vermont	11%

*Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2012. Accessed using NH HealthWRQS. Rate is not statistically different than the overall NH rate. Vermont, 2012-2013: Asthma Data Pages, 2013. Accessed using healthvermont.gov*

Area	Asthma ED Visits and Observation Stays (per 100,000 people), Age Adjusted
DH-APD Service Area (NH municipalities)	296.1*
New Hampshire	493.3

*Date source: NH DHHS Hospital Discharge Data Collection System, 2008-2009. Accessed using NH HealthWRQS. \*Rate is statistically different and lower than the overall NH rate.*

The table below shows the rate of utilization of the emergency department for asthma care for residents of Orange County and Windsor County, VT. Rates of emergency department utilization for Windsor County residents aged 5 – 64 are significantly higher than for Vermont overall.

Area	Asthma ED Visits and Observation Stays (per 100,000 people), Age Adjusted		
	Age 0 - 4	Age 5 - 64	Age 65+
<b>Orange County, VT</b>	Not available	43	940
<b>Windsor County, VT</b>	292	68*	490
<b>Vermont</b>	190	49	118

*Date source: Vermont Uniform Hospital Discharge Data, 2007-2009. Accessed at healthvermont.gov. \*Rate is statistically different and higher than the VT rate.*

**h. Unintentional Injury**

Unintentional injuries from any cause requiring emergency department visits and observation stays are significantly lower for residents of the NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Area was significantly lower than the overall New Hampshire rate during the period 2008 and 2009 (the most current information available).

Falls are a major source of unintentional injury, particularly affecting seniors. The table below reports the rate of unintentional injury emergency department visits and observation stays from falls for residents of the NH municipalities in the DH-APD service area compared to the overall New Hampshire population from 2009 (the most recent data available). Residents of these towns were significantly less likely to be seen in an emergency department due to a fall injury than their counterparts statewide; this was true for all age groups.

Area	Unintentional Injury ED Visits and Observation Stays per 100,000 People Age Adjusted
<b>DH-APD Service Area</b> (NH municipalities)	7,394*
<b>New Hampshire</b>	10,451

*Data Source: NH DHHS Hospital Discharge Data Collection System, 2008-2009. Accessed using NH HealthWRQS. Rate is statistically different and lower than the overall NH rate.*

Area	Unintentional Injury ED Visits and Observation Stays per 100,000 People, Age Adjusted
All Ages	
<b>DH-APD Service Area</b> (NH municipalities)	2,014*
<b>New Hampshire</b>	3,007

*Data Source: NH DHHS Hospital Discharge Data Collection System, 2009. Accessed using NH HealthWRQS. \*Rate is statistically different and lower than the overall NH rate.*

**i. Assault Injury**

The table below shows the rate of assault injury emergency department visits and observation stays for residents of the NH municipalities in the Dartmouth Hitchcock Medical Center/Alice Peck Day Hospital Service Area compared to the overall New Hampshire population from 2009 (the most recent data available). Residents from these towns were significantly less likely to experience emergency department visits and observation stays due to an assault injury than the NH population overall.

Area	Assault Injury ED Visits and Observation Stays per 100,000 People, Age Adjusted
<b>DH-APD Service Area</b> (NH municipalities)	75.8*
<b>New Hampshire</b>	264.2

*Data Source: NH DHHS Hospital Discharge Data Collection System, 2009. Accessed using NH HealthWRQS.*

*\*Rate is statistically different and lower than the overall NH rate.*

#### 4. Access to Care

Access to care refers to the ease with which an individual can obtain needed services. Access is influenced by a variety of factors including affordability of services and insurance coverage, provider capacity in relationship to population need and demand for services, and related concepts of availability, proximity and appropriateness of services.

##### a. Insurance Coverage

The table on the right displays recent estimates of the proportion of residents by municipality who do not have any form of health insurance coverage. The overall uninsurance rate in the DHMC/APD Service Area was estimated to be 8.2% in 2009 – 2013, which was between that of New Hampshire and Vermont.

Area	Percent of the Total Population without Health Insurance Coverage
Dorchester	28.5% <sup>**</sup>
Canaan	17.2% <sup>**</sup>
Grafton	14.3% <sup>+</sup>
Lebanon	11.4% <sup>+</sup>
<b>New Hampshire</b>	<b>10.5%<sup>+</sup></b>
Fairlee	9.9%
Piermont	9.8%
Sharon	9.6%
Hartford	9.2%
Grantham	8.4%
<b>DH-APD Service Area</b>	<b>8.2%</b>
Hartland	8.0%
Enfield	7.5%
Orford	7.5%
<b>Vermont</b>	<b>7.3%*</b>
Lyme	7.2%*
Orange	7.0%
Woodstock	4.9%*
Plainfield	4.5%*
Hanover	4.0% <sup>**</sup>
Norwich	2.5% <sup>**</sup>
Thetford	1.8% <sup>**</sup>

\*Uninsurance rate in town is statistically significantly different than that for NH  
<sup>+</sup>Uninsurance rate in town is statistically significantly different than that for VT  
*Data Source: American Community Survey 2009 - 2013*

### **b. Availability of Primary Care Physicians and Adults without a Personal Health Care Provider**

The table below presents information on the number of primary care physicians per 100,000 population. Doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs.

The table below also provides information about the percentage of adults aged 18 and older who self-report that they do not have at least one person who they think of as a personal doctor or health care provider. This indicator may highlight insufficient access or availability of medical providers, a lack of awareness or health knowledge or other barriers preventing formation of a relationship with a particular medical care provider.

<b>Area</b>	<b>Primary Care Physicians per 100,000 Population</b>	<b>Percent Adults without Any Regular Doctor</b>
<b>DH-APD Service Area</b>	144.0	12.7%
<b>New Hampshire</b>	92.6	12.8%
<b>Vermont</b>	108.5	12.2%

*Data Source: Primary Care Physicians per 100,000 population: US Health Resources and Services Administration Area Health Resource File, 2011. Accessed using Community Commons. Adults without a Regular Doctor: Centers for Disease Control and Prevention, Behavior Risk Factor Surveillance System, 2011-2012. Accessed using Community Commons.*

### **c. Availability of Dentists**

The table on the next page presents information on the number of dentists per 100,000 population. The estimated rate for the DHMC/APD Service Area is similar to the overall state rates for New Hampshire and Vermont.

The table also provides information about the percentage of adults aged 18 and older who self-report that they have not visited a dentist, dental hygienist or dental clinic within the past year.

Finally, the table reports the percentage of adults age 18 and older who self-report that six or more of their permanent teeth have been removed due to tooth decay, gum disease, or infection. In addition to highlighting needed improvements in preventive oral health care, this indicator can also highlight a lack of access to care, a lack of health knowledge, or social and economic barriers preventing utilization of services.

Area	Dentists per 100,000 Population	Percent Adults with No Dental Exam in Last Year	Percent Adults with Poor Dental Health
<b>DH-APD Service Area</b>	65.1	27.1%	15.5%
<b>New Hampshire</b>	67.4	23.1%	14.5%
<b>Vermont</b>	63.8	25.2%	15.9%

*Data Source: Dentists per 100,000 population: US Health Resources and Services Administration Area Health Resource File, 2013. Accessed using Community Commons.*

*Adults With No Dental Exam, Adults With Poor Dental Health: Centers for Disease Control and Prevention, Behavior Risk Factor Surveillance System, 2012. Accessed using Community Commons.*

#### d. Behavioral Health Care - Emergency Department Utilization for Mental Health Conditions

Overutilization or dependence on emergency departments for care of individuals with mental health conditions can be an indication of limited access to or capacity of outpatient mental health services. Utilization of emergency departments for mental health conditions was significantly higher for Sullivan County, but lower for Grafton County, to the state of New Hampshire during 2009 (most recent data available).

Mental Health Condition ED Visits and Observation Stays per 100,000 people	
Area	Overall, Age Adjusted
DHMC/APD Service Area (NH towns only)	1001.7*
New Hampshire	1511.6

Data Source: NH DHHS Hospital Discharge Data Collection System, 2009. Accessed using NH HealthWRQS.

\*Rate is statistically different than the overall NH rate.

#### e. Suicide

This indicator reports the rate of death due to intentional self-harm (suicide) per 100,000 people. Suicide rates can be an indicator of access to mental health care. During the respective time periods, the suicide rates in Grafton County, Sullivan County, Windsor County, and Orange County were not statistically different from the overall NH and VT state rates of suicide deaths.

Suicide Deaths By Any Cause Or Mechanism per 100,000 people	
Area	Overall, Age Adjusted
Grafton County	8.7
Sullivan County	13.6
New Hampshire	12.0
Windsor County	13.3
Orange County	23.7
Vermont	12.7

Data Sources: NH DHHS Hospital Discharge Data Collection System, 2009-2010. Vermont Vital Statistics, 2010-2012. County rates are not significantly different from respective state rates.

## E. SUMMARY OF COMMUNITY HEALTH NEEDS

The table below provides a summary of community health needs and issues identified through the 2015 surveys of community health needs and priorities, the community health discussion groups, and the collection of indicators of community health status. Appendix D to this report includes an inventory of community health resources and facilities in addition to Dartmouth-Hitchcock and Alice Peck Day Memorial Hospital that are potential community assets for addressing these needs.

SUMMARY OF COMMUNITY HEALTH NEEDS AND ISSUES BY INFORMATION SOURCE			
Community Health Issue	Community and Key Leader Surveys	Community Discussion Groups	Community Health Status Indicators
<b>Access to mental health care</b>	Selected as the highest priority issue by community leaders; second highest issue identified by community survey respondents; about 8% of community respondents indicated difficulty accessing mental health services in the past year	Identified as a top 5 priority issue by community discussion participants, who discussed difficulty with timely access to mental health services, lack of service coordination, and different social attitudes toward mental health versus physical health	The suicide rate in the region is similar to the rate for NH overall in recent years; the rate of emergency department utilization for mental health conditions is significantly lower than the rate for NH overall
<b>Access to enough and affordable health insurance; cost of prescription drugs</b>	Selected as the most pressing community health issue by community survey respondents overall; cost of Rx drugs was the top issue for respondents 65+; Inability to afford services the top reason people had difficulty accessing services in the past year and most frequent comment topic	The links between income, employment, family stress, cost of and limited ability to afford services, insurance, prescriptions and compromised health was a significant topic in community discussion groups	The uninsured rate in the DH-APD service area (8.2%) is lower than the overall NH state rate (10.5%) and higher than the overall VT state rate (7.3%)
<b>Alcohol and drug misuse including heroin and misuse of pain medications</b>	Selected as the second most pressing issue by community survey respondents; opioid misuse ranked the second highest priority issue by key stakeholders; 67% of community survey respondents identified 'people under the influence of alcohol or drugs' as a community safety issue	Identified as the highest priority issue by community discussion participants, who described rates of substance abuse as "insane" and having a significant impact on youth and families	The rate of emergency department utilization for substance abuse related mental health conditions is lower than the rate for NH overall; Rates of adult alcohol use and youth drug and alcohol use are similar to NH and VT state averages

**SUMMARY OF COMMUNITY HEALTH NEEDS AND ISSUES BY INFORMATION SOURCE (continued)**

<b>Community Health Issue</b>	<b>Community and Key Leader Surveys</b>	<b>Community Discussion Groups</b>	<b>Community Health Status Indicators</b>
<b>Access to dental health care</b>	Adult dental care most frequently cited for access difficulties by community survey respondents overall and from towns with lower median household incomes in particular; selected as a top 5 issue by community survey respondents and third highest priority of key stakeholders	Some discussion group participants noted the importance of oral health to overall wellness; selected as the top priority by participants in the low income family group	The dentist to population ratio is similar to statewide ratios for NH and VT overall; approximately 1 in 6 adults in the DH-APD service area are considered to have poor dental health
<b>Lack of physical activity; need for recreational opportunities, active living</b>	Identified as a top 10 community health issue by community and key leader survey respondents; biking/walking trails and recreation, fitness programs were the top 2 resources people would use if more available	Identified as a top 10 issue by community discussion group participants; discussion topics included access to affordable fitness and recreation activities for youth and families, as well as time pressures	About 1 in 5 adults in the DH-APD Service Area can be considered physically inactive on a regular basis – a rate similar to the rest of New Hampshire and Vermont
<b>Poor nutrition/access to affordable healthy food</b>	Selected as an important community health issue by 31% of community survey respondents and the second most frequent commentary theme in response to the question of ‘one thing you would change to improve health’	Dietary habits, nutrition and access to healthy foods identified was a common topic of community discussion group participants	About 60% of adults in the DH-APD service area are considered overweight or obese; the rate of obesity among 3 <sup>rd</sup> graders in counties served by DH-APD are higher than for NH overall
<b>Income, poverty, employment; family stress</b>	52% of community respondents with annual household income under \$25,000 reported difficulty accessing services; issues of affordability, insurance costs and deductibles frequently cited as reasons for access difficulties	Identified as the second most important community health issue by community discussion group participants; participants identified geographic and social divides driven by income and class structures	14% of families and 27% of children in the DH-APD service area are living with incomes less than 200% of the federal poverty level – rates that are lower than for NH and VT overall
<b>Affordable Housing</b>	Access to affordable housing identified as the top resource that should receive more focus in support of a healthy community	Identified as the third most important health-related issue by community discussion groups and the top issue selected by the teenage mom group	37% of households in the DH-APD service area spend more than 30 percent of their income on housing costs; a proportion similar to NH and VT overall

**SUMMARY OF COMMUNITY HEALTH NEEDS AND ISSUES BY INFORMATION SOURCE (continued)**

Community Health Issue	Community Health Issue	Community Health Issue	Community Health Issue
<b>Access to Primary Health Care</b>	A top 10 issue for community survey and key leader respondents; about 10% of community respondents reported having difficulty accessing primary care services in the past year; inability to navigate the health care system identified as the top reason for access difficulties by key leaders	Access to primary health care was noted as an issue within the context of discussions about the quality of patient-provider relationships, coordination of services and community-based supports	The ratio of primary care providers to population in the DH-APD service area is higher than the ratios in NH and VT overall; about 1 in 7 adults report not having a 'personal health care provider'; Emergency Dept. visits for asthma and diabetes - potential indicators of primary care adequacy - are lower in the service area than for NH overall
<b>Health care for seniors</b>	Selected as the 2 <sup>nd</sup> most pressing community health issue by community survey respondents age 65 and over; 34% of all respondents selected 'support for older adults' as a focus area for health improvement	UVIP-hosted discussion group emphasized needed improvements in discharge planning, improved provider awareness of and effective connections to community-based supports, public transportation improvements and other resources to help senior stay in their community	The proportion of the DH-APD service area population that is 65 or older (16%) and the percentage of the population with at least one functional disability (11%) are each similar to NH and VT state averages