THE University of Vermont HEALTH NETWORK

Central Vermont Medical Center

Community Health Needs Assessment

Final Report

August 2019

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Our Commitment to Community Health

Central Vermont Medical Center (CVMC) is the primary health care provider for 66,000 people who live and work in Central Vermont. For more than 50 years, we have been dedicated to our Mission: *Central to our community. Caring for a lifetime*.

CVMC works closely with other regional health providers to meet the health care needs for Central Vermonters. Our professional staff of more than 200 physicians and 70 advanced practice providers representing 25 medical specialties provides 24-hour emergency care, and a full spectrum of inpatient and outpatient services.

To ensure these services are aligned with the health care needs of our community, we conduct a Community Health Needs Assessment (CHNA) every three years. This study helps us better serve our community by measuring the health status of residents, gathering wide community input on health concerns, and identifying opportunities to collaborate with partners. The CHNA results and related action plan guide our community health activities over a three year cycle.

The 2019 CHNA was conducted in collaboration with THRIVE, the regional Accountable Community for Health model. This multi-agency coalition, made up of health providers, social service agencies, government, civic, and religious entities, and numerous other community partners, is dedicated to improving health for the residents of Washington and Northern Orange Counties. THRIVE members played an integral role in overseeing data collection and reviewing findings to determine community health priorities based on the CHNA study.

In addition to THRIVE members, nearly 1,500 community residents shared their perspectives on community needs through surveys and open dialogue. We value this feedback and recognize that all community stakeholders play an integral part in advancing the health of Central Vermont.

We invite you to learn more about our activities and to share your thoughts with us on our website www.cvmc.org.

The following report provides an in-depth view of the many factors that influence health in our community. Knowing that social and economic measures often impact health more than health care delivery alone, we sought to demonstrate the correlation between health disparities and social determinants of health—the environmental factors that impact our health.

In response to the findings from this report, CVMC worked with our community partners to outline a plan to guide our community health and benefit activities for the 2019-22 planning cycle. Throughout this planning cycle, we will continue to evaluate our activities and track our progress toward improving the issues that most impact the health of our community. In doing so, we will continue to collaborate with our partners, educate our policy makers, and engage community residents to promote health for all residents of Central Vermont.

For more information about the CHNA and to share your thoughts with us, visit www.cvmc.org.

CHNA Leadership

The 2019 CHNA was overseen by representatives from CVMC and the THRIVE Accountable Health Communities committee. The Community Action Network (CAN), a subcommittee of THRIVE, and CVMC representatives met monthly with our consultants to review and guide the CHNA process. Consultants assisted in all phases of the CHNA including project management, quantitative and qualitative data collection, analysis, facilitation, and report writing. The CVMC CHNA Steering Committee and the CAN subcommittee members are listed below. A full list of THRIVE committee members is provided in Appendix A.

Central Vermont Medical Center CHNA Steering Committee
Anna Noonan, President and CEO
Patricia Fisher, MD, Chief Medical Officer
Nicole Courtois, CHNA Project Manager

THRIVE Community Action Network (CAN) Subcommittee Members
Dan Currier, Central Vermont Regional Planning Commission
Will Eberle, Vermont Agency of Human Services
Rebecca Goldfinger-Fein, People's Health & Wellness Clinic
Claire Kendall, Family Center of Washington County
Tawnya Kristen, Green Mountain United Way
Theresa Lever, Central Vermont Medical Center
Zach Maia, Central Vermont Regional Planning Commission
Sue Minter, Capstone Community Action
Joan Marie Misek, Vermont Department of Health
Mary Moulton, Washington County Mental Health Services
Sandy Rousse, Central Vermont Home Health & Hospice
Beth Stern, Central Vermont Council on Aging
Bonnie Waninger, Central Vermont Regional Planning Commission

Consulting Team
Colleen Milligan, MBA, Director, CHNA Services
Catherine Birdsey, MPH, CHNA Research Manager
Jessica Losito, BS, Research Consultant

Executive Summary

CHNA Methodology

The comprehensive 2019 CHNA included an in-depth review of primary and secondary data to collect and analyze health trends, socio-economic data, and stakeholder perceptions, among other information to inform community health planning. Primary study methods were used to solicit input from health care consumers and key community stakeholders representing the broad interests of the community. Secondary study methods were used to identify and analyze statistical demographic and health trends. Community engagement was an integral part of the 2019 CHNA with wide participation from nearly 1,500 community stakeholders who participated in surveys, focus groups, planning meetings, and other dialogue.

Specific CHNA study methods included:

- An analysis of secondary data sources, including national and state health statistics, demographic and social measures, and health care utilization data
- A Community Member Survey completed by 1,429 residents to collect community perspectives on health concerns, barriers to care, recommendations and related insights
- Focus Groups with 33 health care consumers to inform action planning and strategies to address community health priorities
- Prioritization of health needs in collaboration with TRHIVE committee members

Demographics of the Central Vermont Medical Center Service Area

Washington County is Vermont's third most populous county after Chittenden County and Rutland County. The population and urban resources of Washington County are concentrated in Barre, Berlin, Montpelier, Waterbury, Northfield and Waitsfield, all adjoining centers of industry.

Washington County is a predominantly White and older community with less racial diversity and a higher median age than the state or nation. Consistent with the state and nation, African American and Latino populations are the only growing populations.

Washington County overall has a strong economy. More residents attain higher education and are employed in white collar jobs, and the county unemployment rate is lower than the state or nation. The proportion of all residents living in poverty is similar to the state, and percentages for both Washington County and Vermont are lower than the nation. However, more children in Washington County live in poverty, negatively impacting their health status, and ultimately the long-term health of the community.

Top Health Needs Across the Study Area

Representatives from CVMC, THRIVE, and CAN reviewed CHNA findings in conjunction with the Vermont Department of Health 2019-23 State Health Improvement Plan (SHIP) to determine the most pressing needs impacting residents across Washington County and the CVMC service area. The following criteria were applied to determine priorities on which to focus community wide heath improvement efforts.

CHNA Findings Prioritization Criteria:

- Scope: How many people are affected?
- Severity: How critical is the issue?
- Ability to Impact: Can we achieve the desired outcome?
- Community Readiness: Is the community prepared to take action?

Applying these criteria to the list of top health needs identified by the CHNA research, THRIVE and CAN members rank ordered the community's health needs in the following order.

1. Substance Use Disorders
2. Mental Health
3. Social Influencers of Health (housing, food security, transportation, economic stability)
4. Chronic Disease Prevention
5. Healthy Lifestyles and Risk Behaviors

The 2019 CHNA prioritized health needs align with the VT DOH SHIP Priorities, promoting collaboration between public health, hospital, and community based organizations.

2019 CHNA Priority Health Needs	VT DOH 2019-2023 SHIP Priorities
Chronic Disease	Chronic Disease Prevention
Healthy Lifestyle and Risk Behaviors	Child Development Oral Health
Mental Health	Mental Health
Substance Use Disorders	Substance Use Prevention
Social Determinants of Health (SDOH)	SDOH: Housing, Transportation, Food, Economic Stability

Below are outlined specific data findings that demonstrate how these priority issues impact our community.

Chronic Disease

Chronic disease treatment including early diagnosis, medication management and lifestyle modification greatly impacts a person's health today as well as the development of further complications and hospital admissions/readmissions.

- The coronary heart disease death rate per 100,000 is higher (111.2) than the state (100.8) and nation (97.1)
- Chronic disease was the #3 community health challenge identified by Community Survey respondents
- More than 1 in four Washington County adults are obese (26%), lower than the state, but increasing
- 28% of Washington County adults have hypertension vs. 25% across the state as whole
- 39% of Washington County adults have high cholesterol vs. 34% across the state as whole
- 19% of Washington County residents are age 65 or over
- 28% of senior Medicare beneficiaries within Washington County have 4+ chronic conditions and 12% of seniors live alone

Healthy Lifestyles and Risk Behaviors

Lifestyle behaviors such as healthy diets, smoking abstinence and regular activity can impact a person's health now and can prevent the development of diabetes, heart disease, hypertension and stoke.

- Consistent with the state, only 34% of youth meet recommended fruit consumption guidelines; 17% meet vegetable guidelines
- 22% of Washington County youth meet physical activity guidelines vs. 25% across the state as a whole
- 10% of Washington County teens smoke cigarettes; consistent with 9% statewide
- Electronic cigarette use is on the rise among teens. 33% of teens have tried e-cigarettes and 12% currently use them
- More mothers smoke during pregnancy in Vermont (16%) than compared to the US as a whole (7%); 13% of Washington County mothers smoke during pregnancy.

Mental Health

Screening for and mental health services and access to treatment was identified as the #2 community health challenge by Community Survey respondents.

- Just over one-quarter (26%) of Washington County adults have a depression diagnosis vs. 22% in VT and 17% in the US
- 15% of Washington County teens report that they have a suicide plan vs. 12% statewide and 14% nationwide
- Among senior Medicare beneficiaries, 16.5% have a depression diagnosis compared to 15% across VT and 14% across the US as a whole
- Among Washington County Medicaid beneficiaries, only 3% of youth and 2% of adults are screened for depression
- The suicide rate declined and is similar to the state and nation, but it has historically been higher than both benchmarks

Substance Use Disorders

Residents named substance abuse including alcohol, opioids, controlled substance prescriptions and marijuana as the top community health issue in the Community Survey.

- 20% of Washington County adults report binge drinking vs. 18% across VT and 17% nationally
- More teens (35%) in Washington County report recently drinking alcohol vs. 33% in VT and 30% across the US as a whole
- More teens in in Washington County (27%) report recently using marijuana vs. 24% in VT and 20% in the US
- The opioid death rate in Washington County has been increasing; at 20.6 it exceeds the state rate of 17.6

Social Influencers of Health

Income, housing status and level of education determine how healthy you are and how long you live.

- 18% of children in Washington County live in poverty compared to 14.5% statewide
- Residents identified affordable housing as the #1 social challenge in the Community Survey
- Lack of livable wages and employment opportunities were the #3 and #4 top social challenges identified by survey respondents, respectively
- Consistent with the state, 11% of Washington County residents and 16% of Washington County children are food insecure

CVMC Adopted Priority Health Needs

In accordance with requirements set forth in the ACA, Central Vermont Medical Center leadership team used the CHNA research findings, as well as feedback from focus groups and THRIVE representatives, to determine which priority health needs it would address and develop an Implementation Plan to outline community benefit activities over the next three-year cycle.

Based on CVMC's existing expertise and resources, the medical center is best positioned to lead efforts in multiple areas (in no order of importance):

1. Access to primary and specialty care: CVMC will work to improve access to its primary care and specialty care clinicians. Access improvement strategies will include practice standardization, consolidation, improvement in care management services and implementing telemedicine services.
2. Substance Use Disorders: CVMC is a leading partner with the Washington County Substance Abuse Regional Partnership (WCSARP). CVMC, through a collaborative grant with WCSARP members, was able to obtain a grant through Health Resources & Services Administration (HRSA) to hire a project manager. The project manager is primarily responsible for guiding WCSARP into four domains to address 1. Prevention strategies 2. Treatment programming 3. Recovery support 4. Sustainability which will include additional grant requests. CVMC also has initiatives to improve access to medication assisted treatment (MAT), harm reduction strategies, mental health support for patients wanting access to recovery, and improving our clinicians' opioid prescribing practices.

3. Mental Health Care: CVMC along with UVM Health Network are in the planning stages of adding a 25 bed inpatient psychiatric unit to our current 15 bed unit. This will greatly increase the inpatient psychiatric capacity around the state. This project is anticipated to be on target for completion in 2023. Also in an effort to improve outpatient mental health services, CVMC will also be considering integrating behavioral health care into primary care over the next three years.
4. Social Influencers of Health: CVMC is a leading partner with the local community collaborate THRIVE. CVMC will work with THRIVE members to develop and potentially fund additional initiatives to address social influencers of health that were identified in this report.
5. Care of stroke patients: Through collaboration with UVM Health Network and with the support of telemedicine services, CVMC is pursuing certification as an "Acute Stroke Ready Hospital" in 2020. This will help us standardize the care of patients presenting to our emergency department with signs/symptoms of a stroke, and will expedite their transfer if needed to a higher level of care.
6. Heart Disease: Identified as the number one cause of death in our region and nationally, CVMC will continue to pursue finding ways to not only improve outcomes of patients with identified heart disease, but also to improve access to life style choices that prevent heart disease. CVMC is implementing a heart failure readmission reduction program in collaboration with Central Vermont Home Health and Hospice to 1. Implement a new heart failure inpatient service 2. Improve transitional care coordination for patients identified with heart failure from the inpatient to outpatient levels of care, and 3. Develop a care management program to help with compliance of diet, exercise and medication treatment recommendations.

Board Approval

In acknowledgement of the 2019 CHNA findings and approval of the final report and identified priority areas, the CVMC Board of Directors approved the CHNA in September 2019. The corresponding Implementation Plan was reviewed and approved by the Board of Directors in early 2020. Following the Boards' approval, the CHNA reports were made available to the public via the CVMC website: https://www.cvmc.org/about-cvmc/community/community-health-needs-assessment.

Full Report of CHNA Data and Findings

Secondary Data Profile

Background

Secondary data, including demographic and public health indicators, were analyzed for Washington County, Vermont to better understand community drivers of health status, health and socio-economic trends, and emerging community needs. Data were compared to state and national benchmarks, as available, to identify areas of strength and opportunity for the region. Narrative interpretation of data highlights key findings across the county.

All reported demographic data were provided by ESRI Business Analyst, 2018 and the US Census Bureau, unless otherwise noted. Public health data were analyzed for a number of health issues, including access to care, health behaviors and outcomes, chronic disease prevalence and mortality, mental health and substance use disorder, and maternal and child health. Data were compiled from secondary sources including the Vermont Department of Health, the Centers for Disease Control and Prevention, the Behavioral Risk Factor Surveillance System (BRFSS), and the University of Wisconsin County Health Rankings & Roadmaps program, among other sources. A comprehensive list of data sources can be found in Appendix A.

Public health data focus on county-level reporting; zip code or town/city data is provided as available. Public health data for the county are compared to state and national averages, as well as Healthy People 2020 (HP 2020) goals, where applicable. HP 2020 is a US Department of Health and Human Services health promotion and disease prevention initiative that sets science-based, 10-year national objectives for improving the health of all Americans.

Age-adjusted rates are referenced throughout the report to depict a comparable burden of disease among residents. Age-adjusted rates are summary measures adjusted for differences in age distributions so that data from one year to another, or between one geographic area and another, can be compared as if the communities reflected the same age distribution.

The BRFSS is a telephone survey of residents age 18 or over conducted nationally by states as required by the CDC. A consistent survey tool is used across the US to assess health risk behaviors, prevalence of chronic health conditions, access to care, and preventive health measures, among other health indicators.

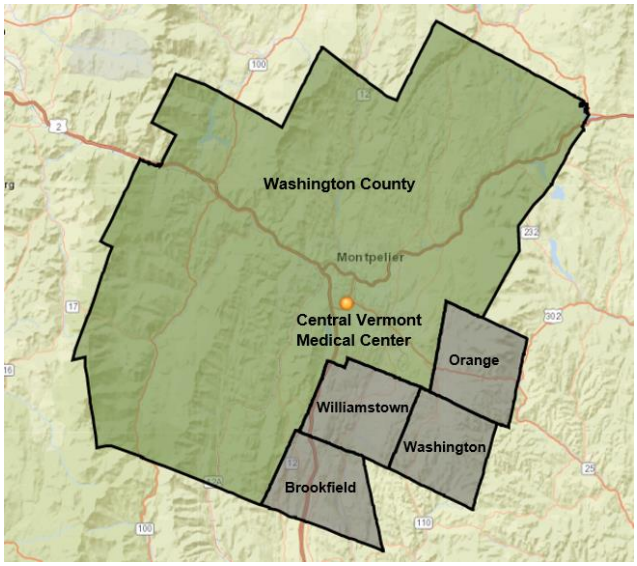
The Youth Risk Behavior Surveillance System (YRBSS) is a school-based survey conducted every other odd year by the CDC to monitor priority health risk behaviors among youth. YRBSS findings are reported for youth in grades 9-12 by county.

Demographic Findings

The following section outlines key demographic indicators related to the social determinants of health within Washington County. Social determinants of health are factors within the environment in which people live, work, and play that can affect health and quality of life, and are often the root cause of health disparity. Healthy People 2020 defines a health disparity as “a particular type of health difference that is closely linked with social, economic, or environmental disadvantage.” All reported demographic data are provided by ESRI Business Analyst, 2018 and the US Census Bureau, unless otherwise noted.

Central Vermont Medical Center primarily serves residents of Washington County and four neighboring towns in Orange County (Brookfield, Orange, Washington, and Williamstown) as shown on the map below. Demographic and socioeconomic data for the neighboring Orange County towns are highlighted in this report, however, for the purposes of the CHNA, data focuses on Washington County.

Central Vermont Medical Center Service Area



Summary of Findings

The 2018 population of Washington County is 60,317. The population increased 1.3% from the 2010 Census, and is projected to increase by 0.9% by 2023. The projected population growth is consistent with Vermont overall, and lower than the national projection of 4%.

The population of Washington County is less racially diverse than the state and the nation, with 95.3% of residents identifying as White. Washington County is also older than the state and the nation, with a median age (44.5) that is six years older than the national median (38.3).

The median income in Washington County ($58,611) is similar to the national median ($58,100), but the rate of poverty (11.8%) is lower (14.6%). However, for Blacks/African American residents living in Washington County, the rate of poverty (19.0%) is higher than for White residents living in the county (11.5%) and higher than for Blacks/African Americans nationally (11.9%). Unemployment in Washington County (2.8%) is lower than the national rate (4.8%), except among Hispanic/Latinos (15.2%). These racial disparities in economic indicators decrease the quality of life for all people in Washington County.

Washington County residents are generally well educated. People of all races and ethnicities in the county are more likely to have completed a bachelor's degree than other people from Vermont or across the nation. While this finding is a strength for the community, it is worth noting that despite higher education, non-white populations continue to experience greater economic barriers.

Vermont has proportionately more LGBTQ people than the US in general. The state LGBTQ population tends to be younger and more likely to be female, has lower incomes, and less social support than other residents. LGBTQ people are also more likely to experience health challenges, including more poor mental health days and substance use disorder conditions.

Demographic Overview

Vermont is less racially diverse than the nation in general. Fewer than 7% of all people in Vermont are people of color compared to 30% nationwide. Washington County is more racially homogeneous than the state; 95.3% of all residents of Washington County are White.

95% of Washington County residents are White, but diversity is increasing, consistent with the state and nation

2018 Population Overview

	Washington County	VT	US
White	95.3%	93.8%	70.0%
Black or African American	1.0%	1.4%	12.9%
Asian	1.0%	1.9%	5.7%
Hispanic or Latino (any race)	2.1%	2.0%	18.3%
Language Other than English Spoken at Home*	3.5%	5.6%	21.3%

Source: ESRI, 2018; US Census Bureau, 2013-2017

*Data are reported for 2013-2017 based on most recent records available.

Over time, the population of Washington County is anticipated to become slightly more diverse than it was during the time of the 2010 Census. However, the composition of Washington County will still remain nearly 95% White in 2023.

2010 vs. 2023 Population by Race/Ethnicity as a Percentage of Total Population (Projected Change)

	White		Black/African American		Asian		Hispanic or Latino	
	2010	2023	2010	2023	2010	2023	2010	2023
Washington County	96.1%	94.7%	0.7%	1.3%	0.8%	1.1%	1.7%	2.4%
Vermont	95.3%	92.5%	1.0%	1.7%	1.3%	2.5%	1.5%	2.4%
United States	72.4%	68.2%	12.6%	13.0%	4.8%	6.4%	16.4%	19.8%

Source: ESRI, 2018

Vermont tends to have proportionately more older people and fewer younger people than the nation in general. Washington County has slightly more older people and fewer children and youth than Vermont or the nation.

The median age of Washington County residents is 6 years older than the national median

2018 Population by Age

	Washington County	VT	US
Under 15 years	15.2%	15.0%	18.6%
15-24 years	12.8%	13.9%	13.3%
25-34 years	10.9%	11.7%	13.9%
35-54 years	25.8%	24.9%	25.3%
55-64 years	16.2%	15.8%	13.0%
65+ years	19.0%	18.7%	16.0%
Median Age	44.5	43.3	38.3

Source: ESRI, 2018

Although the population of Washington County is proportionately older than Vermont and the nation, the proportion of the population experiencing a disability is lower than state and national percentages. The fact that fewer Washington County residents of all ages experience disability suggests a culture of healthy living and disability prevention.

2013-2017 Population with a Disability by Age

	Total Population	Under 18	18-64 years	65+ years
Washington County	12.1% (+/-0.6)	4.0% (+/-1.0)	10.0% (+/-0.8%)	28.9% (+/-2.3%)
Vermont	14.2%	5.6%	11.8%	33.1%
United States	12.6%	4.2%	10.3%	35.5%

Source: US Census Bureau, 2013-2017

*Margin of error (shown as +/-) is reported for US Census Bureau data (American Community Survey).

Seniors living in Washington County are less likely than their peers throughout Vermont and the nation to experience disabilities of all types. In particular, Washington County seniors are noticeably less likely than their peers to have ambulatory or independent living difficulty. These two strengths contribute to longevity and a higher quality of life.

Seniors in Washington County are less likely to have a disability compared to the state and nation

2013-2017 Disability Type among Seniors Age 65 or Over

	Hearing Difficulty	Vision Difficulty	Cognitive Difficulty	Ambulatory Difficulty	Self-Care Difficulty	Independent Living Difficulty
Washington County	14.0% (+/-1.5)	5.2% (+/-1.3)	6.9% (+/-1.2)	16.8% (+/-2.2)	5.7% (+/-1.3)	12.0% (+/-1.5)
Vermont	15.7%	5.3%	7.9%	19.0%	6.9%	12.4%
United States	14.8%	6.5%	8.9%	22.6%	8.2%	14.8%

Source: US Census Bureau, 2013-2017

*Margin of error (shown as +/-) is reported for US Census Bureau data (American Community Survey).

The median household income in Washington County is generally consistent with the median income in Vermont and the nation. Fewer Washington County residents of all ages live in poverty than the nation. However, proportionately greater numbers of Washington County children experience poverty than in Vermont. This finding is of particular concern as fewer Washington County residents receive 3SquaresVT (food stamp/SNAP) benefits than the state or nation. This is a safety net program for individuals and children experiencing poverty.

Nearly 1 in 5 children in Washington County live in poverty, more than the state

2018 Median Household Income and 2013-2017 Poverty/Food Stamp Status

	Washington County	VT	US
Median Household Income	$58,611	$57,396	$58,100
People in Poverty	11.8% (+/-1.4)	11.4%	14.6%
Children in Poverty	18.1% (+/-4.0)	14.5%	20.3%
Seniors (age 65+) in Poverty	5.7% (+/-1.3)	7.3%	9.3%
Households with Food Stamp/SNAP Benefits	11.6% (+/-1.3)	12.8%	12.6%

Source: ESRI, 2018; US Census Bureau, 2013-2017*

*Margin of error (shown as +/-) is reported for US Census Bureau data (American Community Survey).

When stratified by race and ethnicity, there are noticeable disparities in who experiences poverty in Washington County and Vermont. The percentage of White residents living in poverty in Washington County and Vermont is consistent with national percentages. However, in Washington County and Vermont, Black/African American residents experience poverty at nearly twice the national percentage, as well as nearly twice the percentage of their White neighbors. While the proportion of Hispanic/Latino residents experiencing poverty in Washington County is consistent with national proportions, they are also nearly twice as likely as their White neighbors in Washington County to experience poverty.

The percent of African American and Latino residents living in poverty, while based on low counts, is nearly double the rate among White residents

2013-2017 Poverty Rates by Race and Ethnicity

	Washington County		VT	US
	Count	Percentage		
White	6,237	11.5% (+/-1.4)	11.0%	12.0%
Black/African American	84	19.0% (+/-9.6)	22.4%	11.9%
Asian	51	13.6% (+/-7.4)	13.4%	25.2%
Hispanic/Latino	193	20.8% (+/-11.4)	14.9%	22.2%

Source: US Census Bureau, 2013-2017

*Margin of error (shown as +/-) is reported for US Census Bureau data (American Community Survey).

More Washington County residents are employed in white collar jobs than blue collar jobs. The percentage of residents employed in white collar jobs is slightly more than in the state and nation overall. Unemployment in Washington County is low (2.8%), lower than Vermont (3.7%) and the nation (4.8%).

Washington County unemployment is about 3%, lower than the state and nation

2018 Occupation and Unemployment Indicators

	Washington County	VT	US
White Collar Workforce	67.0%	61.0%	61.0%
Blue Collar Workforce	33.0%	39.0%	39.0%
Unemployment Rate	2.8%	3.7%	4.8%

Source: ESRI, 2018

Although unemployment in Washington County overall is low, when stratified by race and ethnicity, it tells a different story. Unemployment among Hispanic/Latino residents in Washington County is four times greater than among White residents in Washington County, three times greater than Hispanic/Latinos in Vermont in general, and two times greater than Hispanic/Latinos across America.

2013-2017 Unemployment Rates by Race and Ethnicity

	Washington County		VT	US
	Count	Percentage		
White	1,829	3.9% (+/-0.7)	4.3%	5.5%
Black/African American	0	0.0% (+/-5.6)	5.7%	11.9%
Asian	0	0.0% (+/-9.6)	3.5%	5.1%
Hispanic/Latino	126	15.2% (+/-8.4)	5.3%	7.6%

Source: US Census Bureau, 2013-2017

*Margin of error (shown as +/-) is reported for US Census Bureau data (American Community Survey).

The median home value in Washington County is generally consistent with Vermont, which is greater than the national median home value. Residents of Washington County and Vermont are more likely than other Americans to own their home. While Washington County homeowners are slightly more likely than typical American homeowners to be cost burdened by housing expenses, Washington County renters are less likely to be cost burdened than other Americans.

Residents are more likely to own their home, but nearly one-third are cost burdened, consistent with the state

2013-2017 Households by Occupancy and Housing Cost Burden

	Washington County	VT	US
Renter-Occupied	28.4% (+/-1.4)	29.5%	36.2%
Cost-Burdened Renters	47.3%	51.3%	50.6%
Owner-Occupied	71.6% (+/-1.4)	70.5%	63.8%
Median Home Value	$217,200 (+/-5,291)	$220,600	$193,500
Cost-Burdened Owners	31.2%	33.7%	29.5%

Source: US Census Bureau, 2013-2017

*Margin of error (shown as +/-) is reported for US Census Bureau data (American Community Survey).

Education is a strong indicator of community economic stability and health outcomes. Washington County residents are highly educated when compared to their peers in Vermont or the nation. The percent of Washington County adults who do not complete high school is half of the national percent, while the percent of adults with a bachelor's degree or higher is 9 percentage points higher than the nation.

More than 40% of residents have at least a bachelor's degree; percentages are slightly lower among African American and Latino residents

2018 Population (25 Years or Over) by Educational Attainment

	Washington County	VT	US
Less than a High School Diploma	6.1%	7.7%	12.3%
High School Graduate/GED	27.7%	29.0%	27.0%
Bachelor's Degree or Higher	40.8%	36.5%	31.8%

Source: ESRI, 2018

When stratified by race and ethnicity, Washington County residents are more likely to have completed a bachelor's degree or higher than their peers throughout America, and differences between racial and ethnic groups in the county are less severe. This finding is a strength for Washington County overall, but also a concern as it indicates that non-white populations experience greater economic distress than their White peers, despite near equal education.

2013-2017 Bachelor's Degree or Higher by Race and Ethnicity

	Washington County		VT	US
	Count	Percentage		
White	16,325	40.3% (+/-1.6)	36.8%	32.2%
Black/African American	96	32.5% (+/-16.5)	33.1%	20.6%
Asian	166	57.4% (+/-15.2)	45.5%	52.7%
Hispanic/Latino	205	36.6% (+/-11.8)	38.7%	15.2%

Source: US Census Bureau, 2013-2017

*Margin of error (shown as +/-) is reported for US Census Bureau data (American Community Survey).

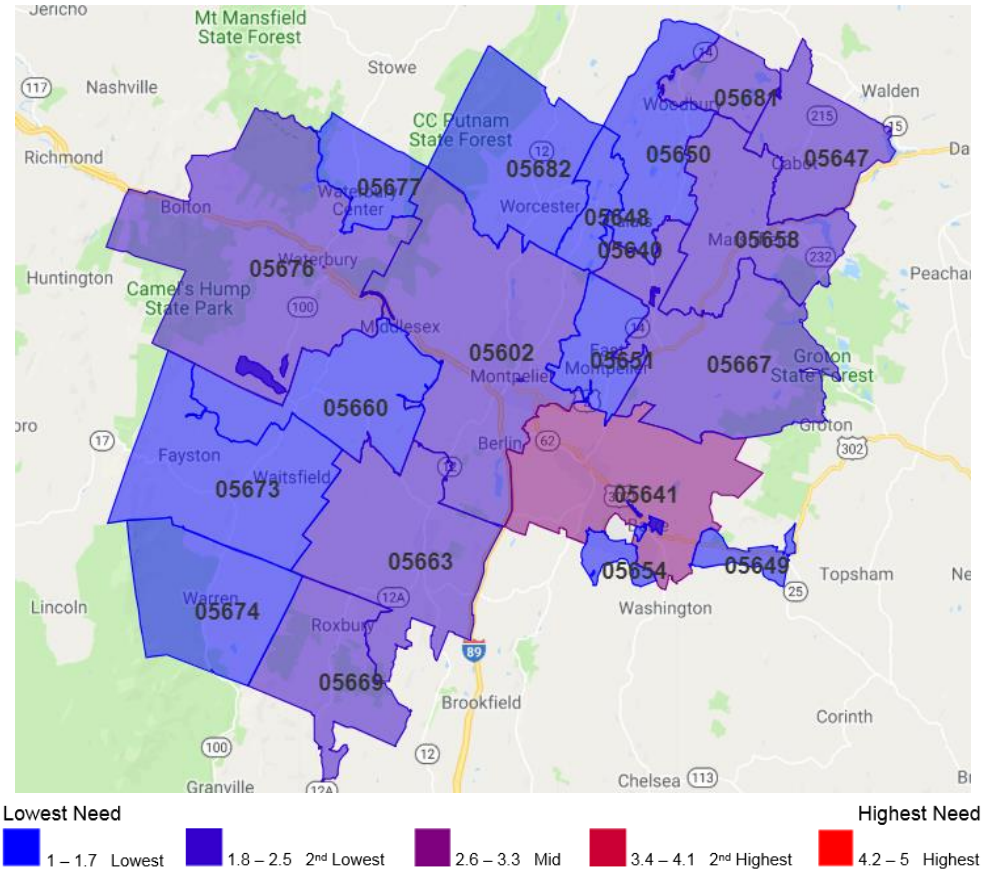
Community Need Index

Where we live matters in determining health and longevity. Zip code of residence is one of the most important predictors of health outcomes and disparity. The Community Need Index (CNI) was developed by Dignity Health and Truven Health Analytics to illustrate the potential for health disparity at the zip code level. The CNI scores zip codes on a scale of 1.0 (low need) to 5.0 (high need) based on data indicators for five socioeconomic barriers:

- Income: Poverty among elderly households, families with children, and single female-headed families with children
- Culture/Language: Minority populations and English language barriers
- Education: Population over 25 years without a high school diploma
- Insurance coverage: Unemployment rate among population 16 years or over and population without health insurance
- Housing status: Householders renting their home

The weighted average CNI score for Washington County is 2.1, indicating lower than average overall community need. The four Orange County towns comprising the secondary service area are primarily located in zip codes 05036, Brookfield; 05641, Barre; 05675, Washington; and 05679, Williamstown. The CNI score for these four zip codes is 2.6, indicating slightly higher community need than Washington County.

Community Need Index for CVMC's Service Area



The following table analyzes social determinants of health indicators for zip codes comprising Washington County and select Orange County towns. Zip codes are shown in comparison to their respective county and the state, and are presented in descending order by CNI score. Cells that are more than 2% points *higher* than the county percentage are highlighted in yellow to demonstrate areas of socioeconomic disparity. Note: The 2% point difference does not represent statistical significance.

Within Washington County, residents of zip code 05641, Barre, experience the greatest community need as evidenced by rates of poverty and educational attainment. It is worth noting that while zip codes 05647, Cabot and 05658, Marshfield have lower CNI scores than 05641, Barre, residents of these areas have similar, higher rates of poverty.

Social Determinants of Health by Washington County Zip Code

	HHs in Poverty	HHs Receiving 3Squares VT (SNAP)	Children in Poverty	Language Other than English Spoken at Home	Unemp-loyment	Less than HS Diploma	Without Health Insurance	CNI Score
Washington County	**10.9%**	**11.6%**	**18.1%**	**3.5%**	**2.8%**	**6.1%**	**3.9%**	**2.1**
05641, Barre	15.8%	18.8%	30.9%	3.8%	3.2%	8.4%	3.2%	2.8
05602, Montpelier	9.7%	10.2%	13.2%	3.5%	3.3%	5.2%	3.2%	2.2
05669, Roxbury	12.9%	12.2%	10.5%	3.7%	1.6%	13.7%	4.7%	2.2
05647, Cabot	15.2%	22.0%	33.6%	3.9%	2.4%	7.3%	2.9%	2.0
05658, Marshfield	14.4%	12.0%	23.9%	2.5%	2.6%	6.6%	6.7%	2.0
05663, Northfield	5.2%	4.5%	3.7%	4.5%	1.9%	6.9%	3.2%	2.0
05667, Plainfield	8.8%	9.3%	8.2%	3.2%	3.4%	6.4%	6.2%	2.0
05676, Waterbury	7.5%	6.5%	4.9%	2.4%	3.3%	4.9%	3.9%	1.8
05681, Woodbury	11.4%	4.8%	9.0%	3.4%	3.0%	3.7%	2.9%	1.8
05654, Graniteville	10.6%	14.0%	0.0%	3.1%	2.2%	8.1%	3.5%	1.6
05674, Warren	10.2%	5.4%	16.0%	2.4%	0.5%	4.1%	5.5%	1.6
05682, Worcester	6.0%	11.9%	16.3%	4.4%	2.6%	4.2%	6.7%	1.6
05649, East Barre	7.5%	5.6%	17.9%	7.4%	2.0%	1.9%	6.8%	1.4
05650, East Calais	11.5%	10.5%	4.9%	1.9%	2.9%	5.1%	5.3%	1.4
05651, East Montpelier	12.0%	6.7%	11.3%	3.3%	3.1%	2.5%	5.8%	1.4
05660, Moretown	6.3%	4.7%	2.8%	3.5%	1.7%	3.4%	2.0%	1.4
05673, Waitsfield	4.6%	5.6%	5.7%	4.0%	2.2%	2.7%	4.3%	1.4
05640, Adamant	10.0%	10.7%	0.0%	0.0%	0.0%	4.2%	0.0%	1.2
05648, Calais	6.5%	1.7%	0.0%	1.8%	2.9%	4.4%	3.0%	1.2
05677, Waterbury Center	11.0%	13.2%	37.6%	2.0%	2.7%	4.2%	2.2%	1.2
05666, North Montpelier	11.1%	NA	NA	NA	0.0%	5.9%	NA	NA*
Vermont	**11.6%**	**12.8%**	**14.5%**	**5.6%**	**3.7%**	**7.7%**	**4.8%**	

Source: ESRI, 2018; US Census Bureau, 2012-2016, 2013-2017

*A CNI score cannot be generated for 05666 likely due to a low population count.

2018 Demographic Indicators by Washington County Zip Code

	White	Black/ African American	Hispanic/ Latino	Under 15	15-24	25-34	35-54	55-64	65+
Washington County	**95.3%**	**1.0%**	**2.1%**	**15.2%**	**12.8%**	**10.9%**	**25.8%**	**16.2%**	**19.0%**
05641, Barre	95.9%	1.2%	2.4%	16.4%	10.8%	11.9%	26.0%	15.2%	19.7%
05602, Montpelier	93.9%	1.2%	2.4%	14.1%	10.0%	11.9%	25.2%	17.6%	21.3%
05669, Roxbury	97.0%	0.4%	1.1%	14.6%	8.3%	10.0%	28.9%	20.0%	18.2%
05647, Cabot	96.6%	0.8%	0.8%	19.2%	10.4%	10.4%	24.0%	16.9%	19.1%
05658, Marshfield	95.6%	1.0%	1.4%	18.6%	10.4%	10.2%	25.6%	17.2%	18.0%
05663, Northfield	93.5%	1.7%	3.3%	11.5%	33.8%	10.3%	18.5%	11.4%	14.5%
05667, Plainfield	95.5%	1.1%	1.5%	16.6%	10.7%	9.8%	27.1%	17.0%	18.9%
05676, Waterbury	95.8%	0.6%	1.4%	15.1%	11.2%	11.8%	30.5%	15.8%	15.7%
05681, Woodbury	96.2%	1.0%	1.0%	14.3%	7.6%	9.5%	26.7%	18.1%	23.8%
05654, Graniteville	96.8%	0.5%	1.9%	15.9%	11.4%	11.4%	27.4%	14.9%	18.9%
05674, Warren	96.4%	0.5%	1.9%	15.5%	10.2%	9.4%	24.9%	18.4%	21.5%
05682, Worcester	95.5%	1.4%	0.8%	15.8%	9.8%	9.0%	28.8%	18.7%	18.0%
05649, East Barre	97.7%	1.0%	2.7%	19.2%	11.6%	13.9%	26.2%	13.2%	15.9%
05650, East Calais	96.2%	0.7%	1.2%	15.4%	8.2%	9.4%	28.2%	19.8%	19.1%
05651, East Montpelier	96.6%	0.8%	1.6%	14.3%	11.7%	9.4%	25.2%	17.4%	22.1%
05660, Moretown	96.7%	0.5%	1.8%	14.6%	9.3%	9.5%	30.8%	19.1%	16.8%
05673, Waitsfield	96.8%	0.3%	1.5%	14.9%	9.0%	9.4%	29.5%	18.4%	18.7%
05640, Adamant	100%	0.0%	0.0%	16.7%	3.3%	6.7%	33.3%	33.3%	6.7%
05648, Calais	97.8%	0.0%	1.0%	16.9%	6.8%	7.8%	25.8%	25.1%	17.7%
05677, Waterbury Center	96.5%	0.4%	1.2%	17.1%	9.4%	8.5%	28.6%	18.0%	18.3%
05666, North Montpelier	100%	0.0%	0.0%	16.7%	12.5%	12.5%	33.3%	16.7%	8.3%
Vermont	**93.8%**	**1.4%**	**2.0%**	**15.0%**	**13.9%**	**11.7%**	**24.9%**	**15.8%**	**18.7%**

Source: ESRI, 2018

Social Determinants of Health by Orange County Zip Code

	HHs in Poverty	HHs Receiving Food Stamps/ SNAP	Children in Poverty	Language Other than English Spoken at Home	Unemp-loyment	Less than HS Diploma	Without Health Insurance	CNI Score
Orange County	**12.0%**	**12.3%**	**15.8%**	**3.3%**	**3.2%**	**7.9%**	**5.5%**	**2.1**
05036, Brookfield	13.6%	13.9%	29.6%	4.9%	2.0%	6.8%	7.5%	2.0
05041, East Randolph	12.3%	16.9%	0.0%	0.0%	4.5%	15.0%	7.3%	1.8
05675, Washington	11.3%	13.9%	11.3%	7.6%	2.7%	11.3%	4.9%	1.8
05679, Williamstown	10.7%	7.9%	0.0%	2.1%	1.9%	9.3%	7.8%	1.8
Vermont	**11.6%**	**12.8%**	**14.5%**	**5.6%**	**3.7%**	**7.7%**	**4.8%**	

Source: ESRI, 2018; US Census Bureau, 2012-2016, 2013-2017

2018 Demographic Indicators by Orange County Zip Code

	White	Black/ African American	Hispanic/ Latino	Under 15	15-24	25-34	35-54	55-64	65+
Orange County	**96.2%**	**0.7%**	**1.5%**	**15.1%**	**11.6%**	**10.7%**	**25.3%**	**17.6%**	**19.8%**
05036, Brookfield	97.0%	0.4%	0.8%	15.3%	10.1%	9.9%	24.5%	19.5%	20.6%
05041, East Randolph	97.2%	2.8%	2.8%	16.7%	27.8%	11.1%	22.2%	11.1%	11.1%
05675, Washington	97.0%	0.8%	0.9%	13.6%	7.6%	11.3%	26.5%	21.3%	19.7%
05679, Williamstown	97.2%	0.4%	2.2%	14.8%	11.6%	11.8%	27.3%	15.9%	18.6%
Vermont	**93.8%**	**1.4%**	**2.0%**	**15.0%**	**13.9%**	**11.7%**	**24.9%**	**15.8%**	**18.7%**

Source: ESRI, 2018

Social Vulnerability Index

The Vermont Social Vulnerability Index (SVI) is a planning tool to evaluate the relative vulnerability of populations in different parts of the state. The SVI draws together 16 different measures of vulnerability across three different themes: socioeconomic vulnerability, demographic vulnerability, and housing/transportation vulnerability.

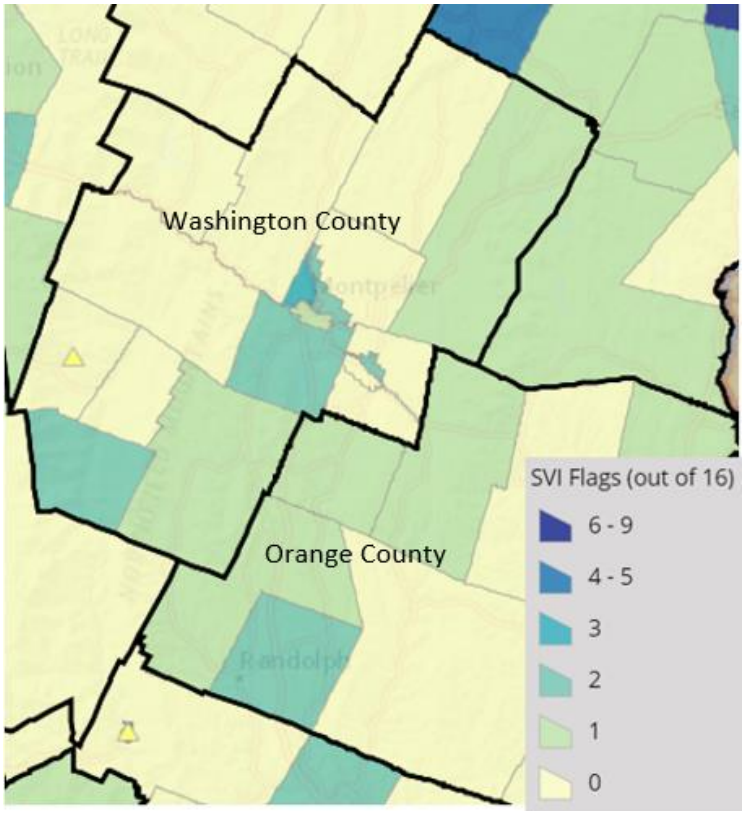
Vermont Social Vulnerability Index Measures of Vulnerability

Socioeconomic Vulnerability Measures:	Demographic Vulnerability Measures:	Housing/Transportation Vulnerability Measures:
1. Poverty - population living below Federal poverty level 2. Unemployment - age 16 and over seeking work 3. Per capita income - (2013 inflation-adjusted $) 4. Education - age 25+ without a high school diploma 5. Health insurance - age less than 65 without insurance	6. Children - population age less than 18 7. Elderly - population age 65 and over 8. Disability - age 5 or more with a disability 9. Single parent - percent of households with children 10. Minority - Hispanic or non-white race 11. Limited English - age 5 and over who speak English less than “Well”	12. Large apt. bldgs. - 10 or more housing units per building 13. Mobile homes - percent of housing units 14. Crowding - housing units with more than one person per room 15. No vehicle - households with no vehicle available 16. Group quarters - population living in group quarters

For all 16 socioeconomic measures, census tracts above the 90th percentile, or the most vulnerable 10%, are assigned a flag. The overall vulnerability index is created by counting the total number of flags in each census tract.

The following map shows the SVI for census tracts within Washington County and parts of Orange County. The darker blue areas on the map indicate census tracts with more social vulnerability flags, or populations experiencing greater socioeconomic disparity. Consistent with the CNI scores, areas surrounding Barre and Montpelier have the most flags (2-3 out of 16).

Social Vulnerability Index for
Central Vermont Medical Center Service Area



Special Population Groups

Homeless Population
Each year, the Vermont Coalition to End Homelessness and Chittenden County Homeless Alliance conduct a point-in-time study to identify individuals experiencing homelessness. The unduplicated statewide count is conducted on a single night in January. The study does not include individuals at risk of homelessness or those who are “couch surfing.”

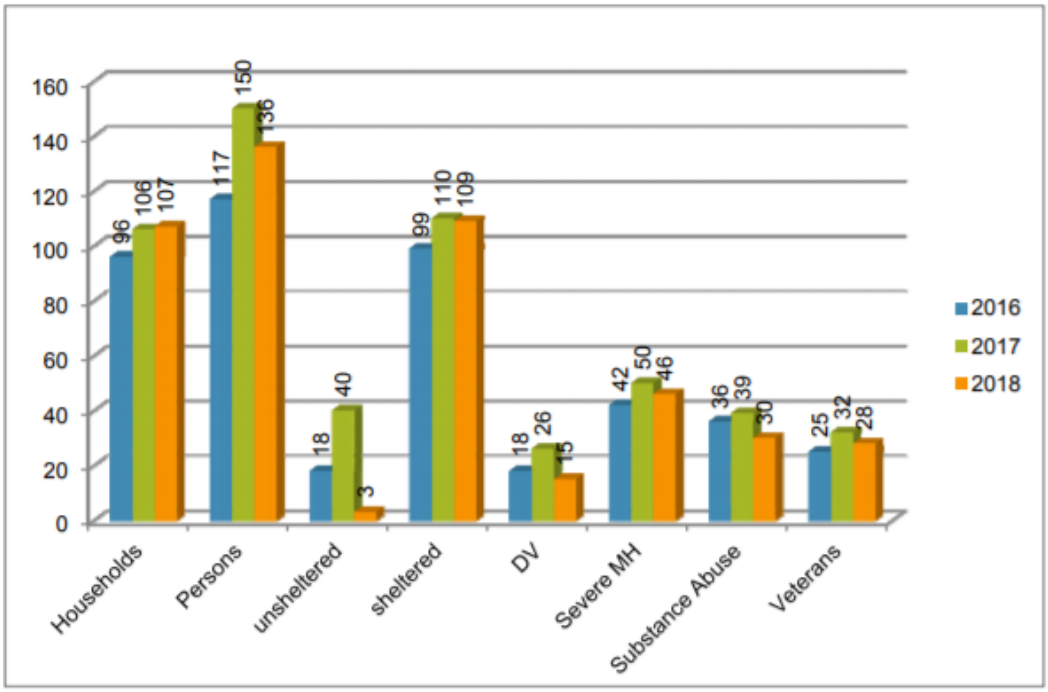
In 2018, 1,291 people across Vermont were identified as experiencing homelessness, an increase of 66 people or 5% from the 2017 count. In Washington County, approximately 108 homeless households, comprising 136 individuals, were identified as experiencing homelessness. The number of individuals experiencing homelessness represents a decrease from 150 in 2017.

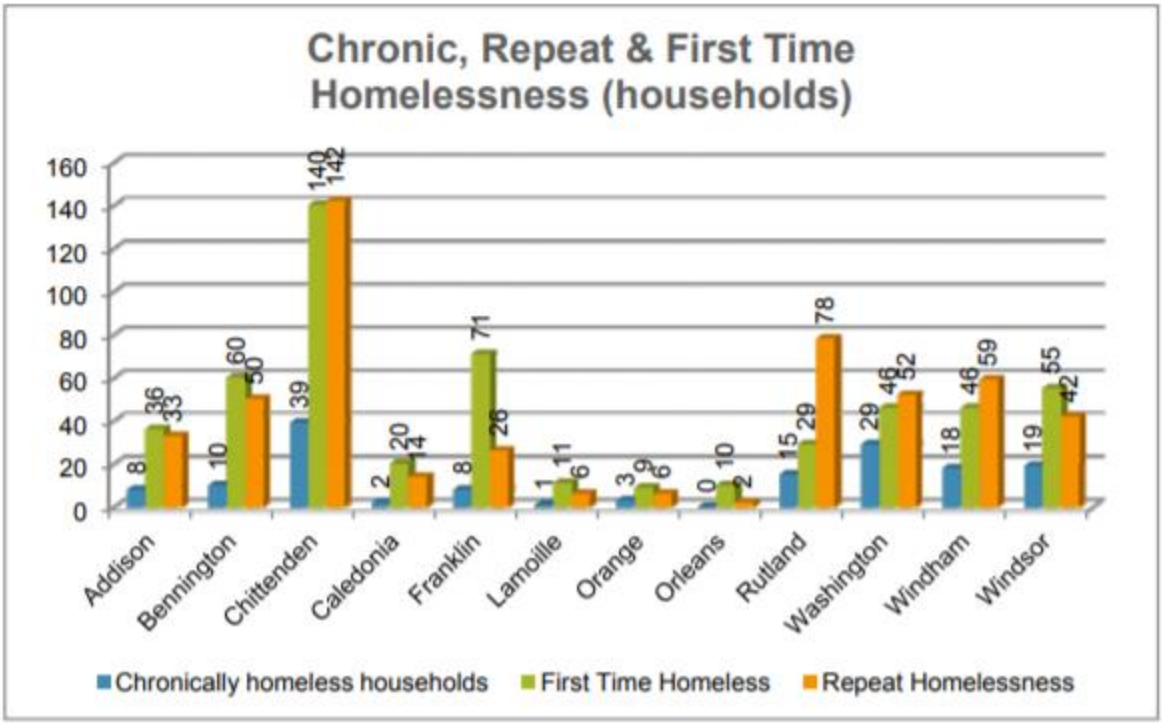
In Washington County in 2018, approximately 136 individuals were identified as experiencing homelessness; a decrease from 150 in 2017

Among the 108 homeless households in Washington County, 29 households were chronically homeless and three households were unsheltered. Approximately 16 households comprised at least one adult and one child, 13 households comprised unaccompanied youth, and one household comprised a parenting youth.

Among the 136 individuals experiencing homelessness in Washington County, nearly half (48%) were ages 25-54, 21% were age 55 or over, and 17% were under age 18. The majority of individuals (n=91) were male. Fifteen adults were homeless due to fleeing domestic violence. Approximately one-third of individuals had a mental health condition and one-quarter had a chronic substance abuse condition.

Washington County Homeless Persons Point-in-Time Counts





LGBTQ+ Population

According to a 2015-2016 Gallup poll, 5.3% of Vermont residents identify as LGBTQ, the highest of any state in the nation. The percentage of national adults identifying as LGBTQ increased from 3.5% in 2012 to 4.5% in 2017. Gallup attributes some of the growth in the LGBTQ population to increasing social acceptance of LGBTQ people, which allows more people to feel comfortable openly identifying themselves in this way. The millennial generation has been the most significant generation to contribute to the increase in the counts of LGBTQ people.

Approximately 5.3% of Vermont residents identify as LGBT, the highest of any state in the nation

In 2016, the Vermont Department of Health conducted a survey among LGBTQ individuals as part of the Behavioral Risk Factor Surveillance System (BRFSS). The survey was conducted in recognition of the particular health challenges, risk behaviors, and disparities experienced by the LGBTQ population. Select findings from the survey are listed below:

- The LGBTQ population in Vermont is young and predominately female. Six in ten (61%) LGBTQ adults identify as female, while 39% identify as male. More than half of LGBTQ Vermonters are ages 18-44 (66%) compared to 39% of heterosexual Vermont adults.
- LGBTQ people earn less money in general. LGBTQ adults are statistically more likely than non-LGBTQ adults to live in a home earning less than $25,000 (38% vs. 23%) and less likely to live in a home with an income of at least $50,000 annually (35% vs. 53%). These differences may be explained in part because the heterosexual population is slightly older, therefore representing greater earning capacity.

- LGBTQ people have greater health needs. Vermont LGBTQ adults are more than twice as likely as hetero-sexual adults to report poor mental health, a statistically significant difference. More than half of LGBTQ adults have been diagnosed with a depressive disorder. Poor physical health is also significantly more likely among LGBTQ adults than heterosexual adults (18% vs. 11%).
- LGBTQ people generally lack social and emotional support. LGBTQ adults are significantly less likely than non-LGBTQ adults to 'always' get needed emotional and social support. Correspondingly, LGBTQ adults are more likely than heterosexual adults to receive lesser levels of support.
- LGBTQ people experience more substance use issues. LGBTQ adults are significantly more likely than those who are not LGBTQ to report current smoking, marijuana use, and binge drinking.
- LGBTQ people take HIV seriously. Nearly two in ten (18%) LGBTQ adults reported participating in a high HIV transmission risk behavior in the last year. This is significantly higher than the 5% reported among heterosexual adults. But, more than half of the Vermont adult LGBTQ population has ever been tested for HIV, and 22% were tested in the last year. This is a positive finding because LGBTQ adults, particularly men, are at an increased risk of HIV infection.

Statistical Health Indicators and Analysis

Summary of Findings

Washington County residents of all races are more likely than other Americans to have health insurance. Washington County also has more primary care doctors, dentists, and mental health providers per population than most other areas. Most adults report having a primary care physician, and few have delayed care. These factors should indicate that health care is more available in Washington County, but they do not account for the myriad of other issues that impede an individuals' ability to access care like transportation (particularly for elderly in the winter), type of insurance (not all providers accept Medicaid), access (not all primary care providers are accepting new patients), and cost (not all individuals can afford copays). It is worth nothing that among school aged children, only 63% in Washington County have had a yearly well child visit.

As a whole, residents of Washington County live longer and feel healthier compared to other people in Vermont and the US. The prevalence of key health risk behaviors, including smoking and obesity, is lower in Washington County than the state and nation, although the obesity rate is increasing. Prevalence and death rates due to leading chronic conditions are also lower than state and national rates. The exception is the rate of death due to coronary heart disease. Washington County residents have a coronary heart disease death rate of 111.2 per 100,000 compared to state and national rates of 100.8 and 97.1 respectively.

The incidence of cancer in Washington County is higher than the state or nation, but death due to cancer is lower than both. This finding is positive, indicating that cancer is being detected early and treated effectively.

While physical health outcomes tend to be better in Washington County and Vermont overall than in the nation, both areas fall behind the nation in behavioral health. The rate of suicide per 100,000 in Washington County (15.7) is on par with the state (16.8), but higher than the nation (13.8). Additionally, the rate of opioid related deaths per 100,000 in Washington County increased sharply between 2014 and 2017, and is higher (20.6) than the state (17.6).

Behavioral health concerns span all age groups in Washington County. More than one-third of Washington County teens (35%) reported recent alcohol use and 19% reported binge drinking, higher than the state (33%, 17%) and nation (30%, 14%). More than 1 in 4 Washington County teens (27%) reported recent marijuana use, also higher than the state (24%) and nation (20%). Approximately 15% of youth reported making a suicide plan compared to 12% statewide and 14% nationally. Seniors in Washington County are more likely to suffer from depression (16.5%) than seniors in Vermont (14.7%) and the US (14.1%). Washington County seniors are also more likely to live alone than seniors nationwide, which may contribute to the higher rates of depression.

Access to Health Care

Washington County was ranked #2 out of 14 counties in Vermont for clinical care, as reported by the University of Wisconsin County Health Rankings & Roadmaps program. The clinical care ranking is based on a number of indicators, including health insurance coverage and provider access. Washington County was also ranked #2 at the time of the 2016 CHNA.

2018 Clinical Care County Health Rankings

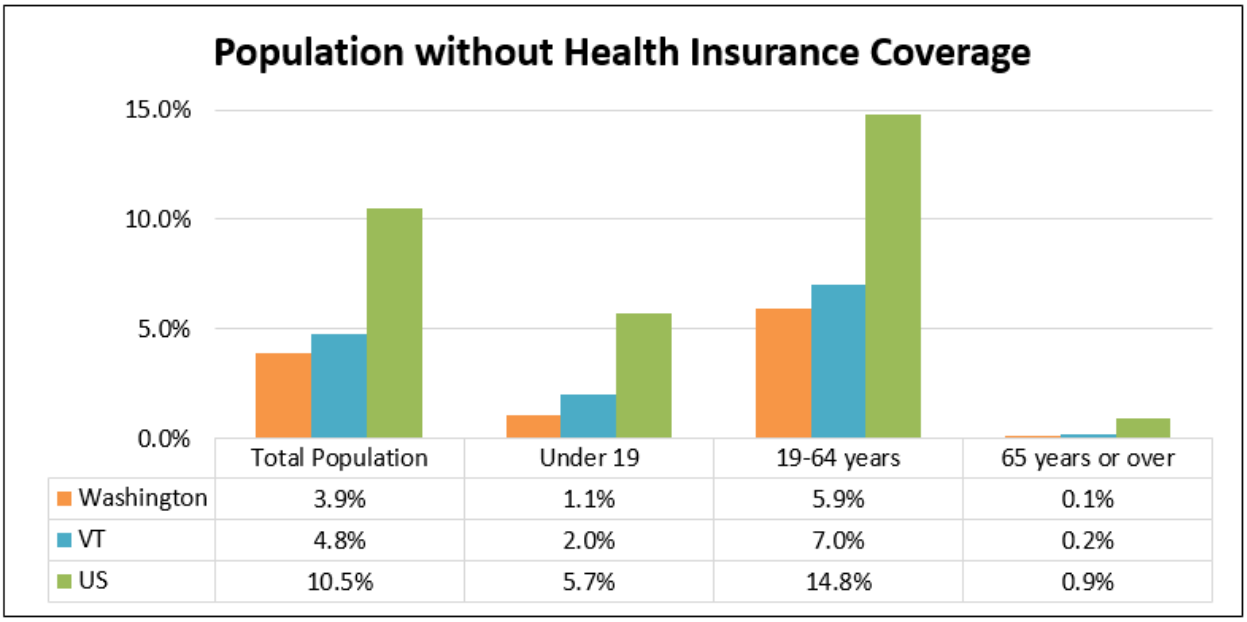
#2 Washington County (#2 in 2015)

Having health insurance is an essential component enabling people to access health care. More than 95% of Washington County's residents have health insurance; far more than in Vermont or the US in general. The percent of uninsured people in Washington County is declining every year, which is a continued move in a positive direction. Most Washington County residents have health insurance through their employer, which is consistent with the state and the nation.

The percent uninsured in Washington County is declining and lower than the state and nation

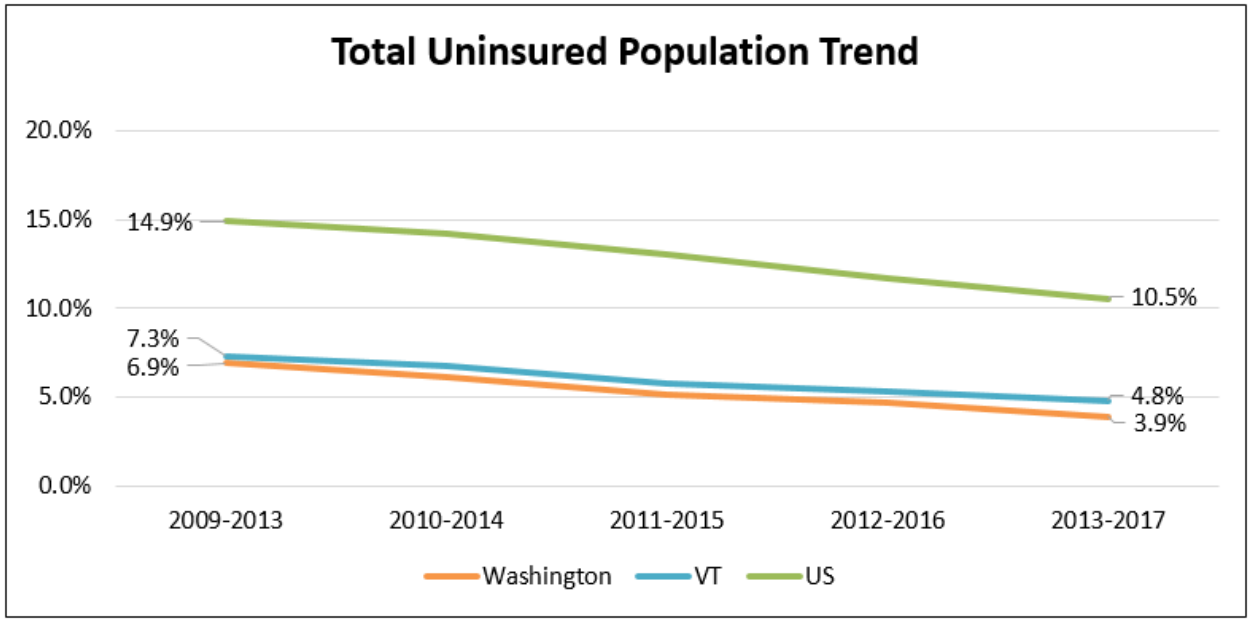
When stratified by race and ethnicity, Washington County uninsured rates are also lower than state and national benchmarks, and similar among demographic groups.

Contrary to state and national trends, uninsured percentages are similar among White and non-white populations

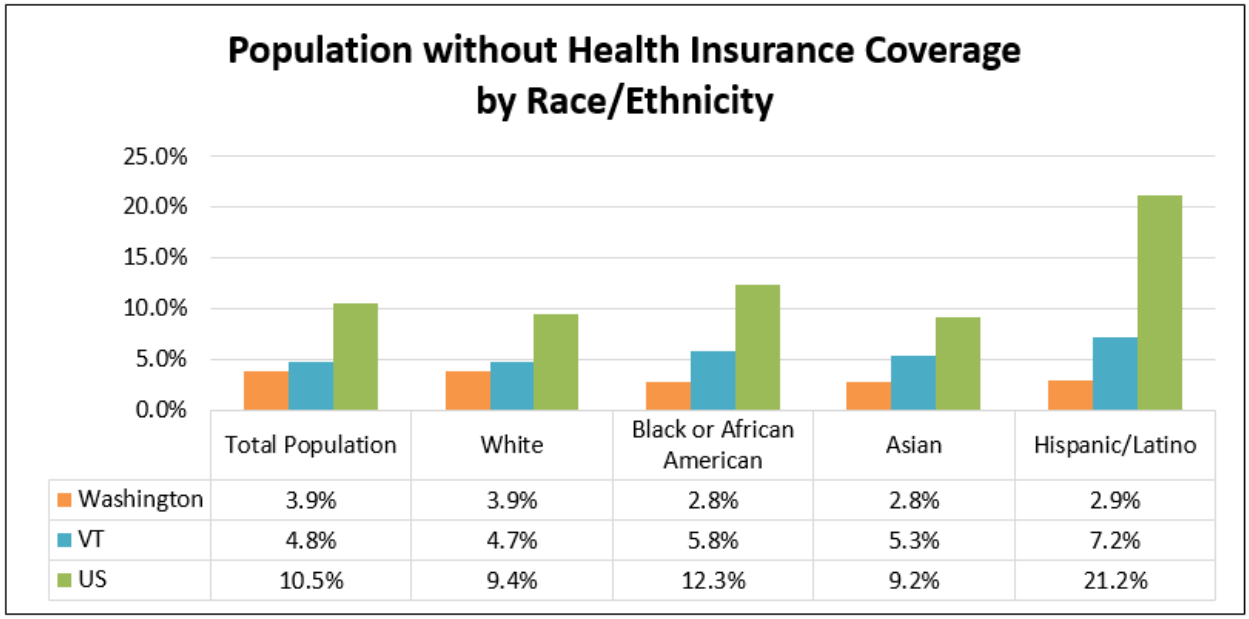


	Total Population	Under 19	19-64 years	65 years or over
Washington	3.9%	1.1%	5.9%	0.1%
VT	4.8%	2.0%	7.0%	0.2%
US	10.5%	5.7%	14.8%	0.9%

Source: US Census Bureau, 2013-2017

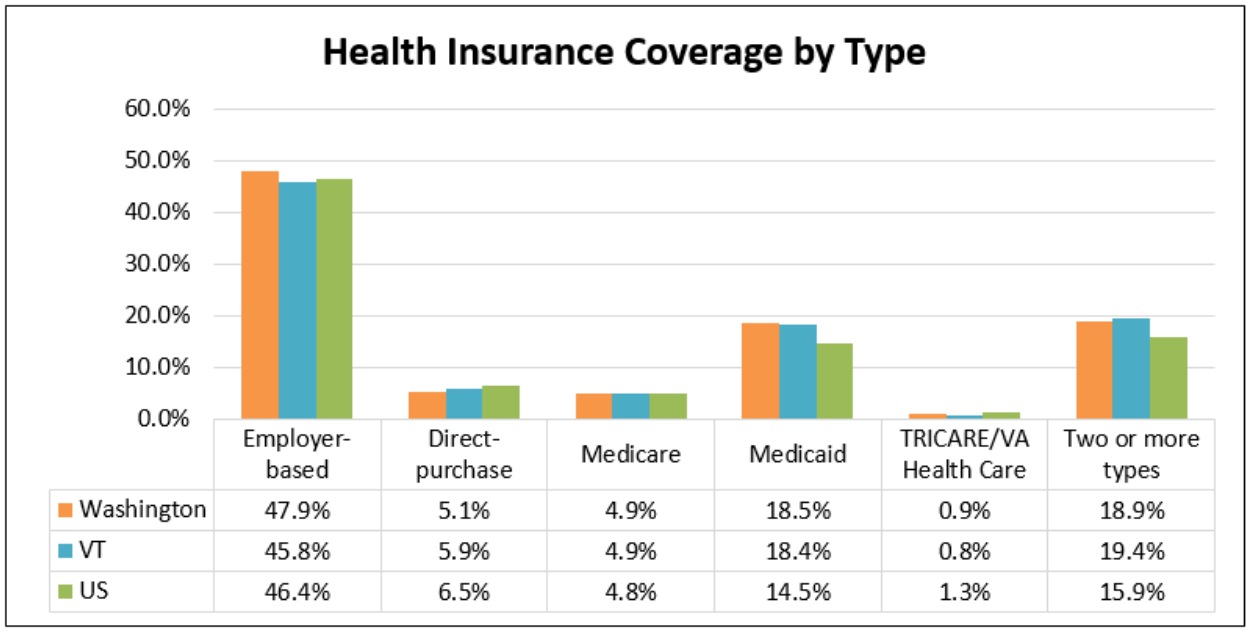


Source: US Census Bureau, 2009-2013 – 2013-2017



	Total Population	White	Black or African American	Asian	Hispanic/Latino
Washington	3.9%	3.9%	2.8%	2.8%	2.9%
VT	4.8%	4.7%	5.8%	5.3%	7.2%
US	10.5%	9.4%	12.3%	9.2%	21.2%

Source: US Census Bureau, 2013-2017

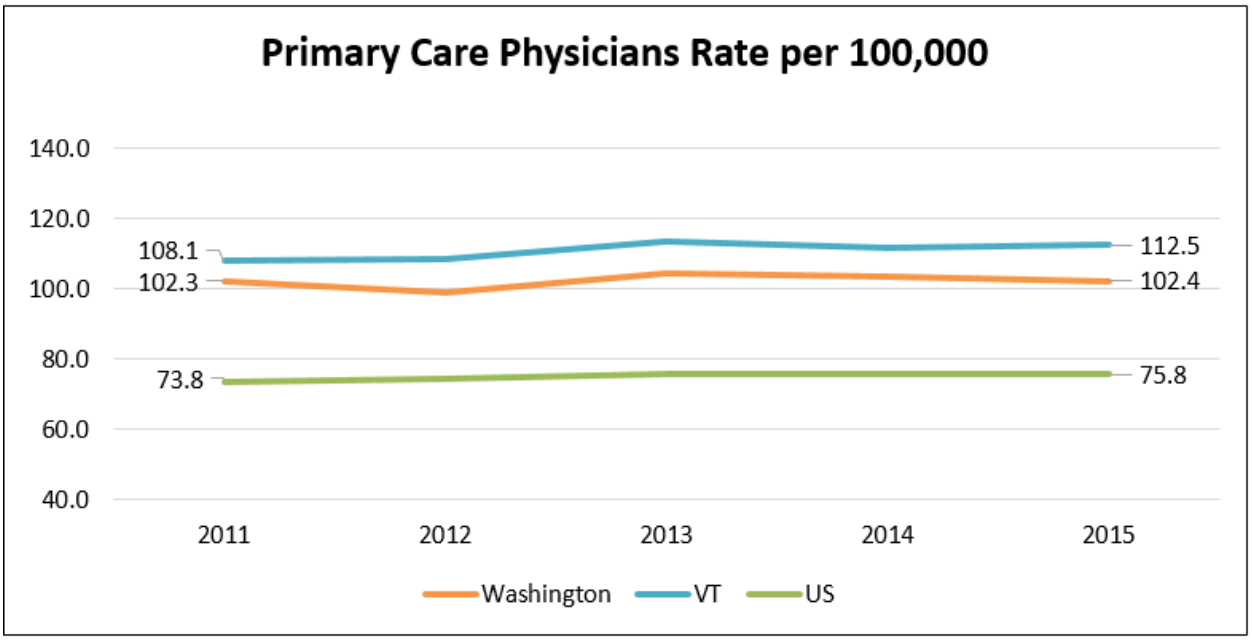


	Employer-based	Direct-purchase	Medicare	Medicaid	TRICARE/VA Health Care	Two or more types
Washington	47.9%	5.1%	4.9%	18.5%	0.9%	18.9%
VT	45.8%	5.9%	4.9%	18.4%	0.8%	19.4%
US	46.4%	6.5%	4.8%	14.5%	1.3%	15.9%

Source: US Census Bureau, 2013-2017

Residents of Washington County and Vermont overall have better access to primary care physicians than the nation overall

Another significant factor in ensuring access to care is the number of health care providers available in the area. There are more primary care physicians per 100,000 population in Washington County and Vermont than the nation overall, meaning there are proportionately more primary care physicians available to serve the residents of Washington County.

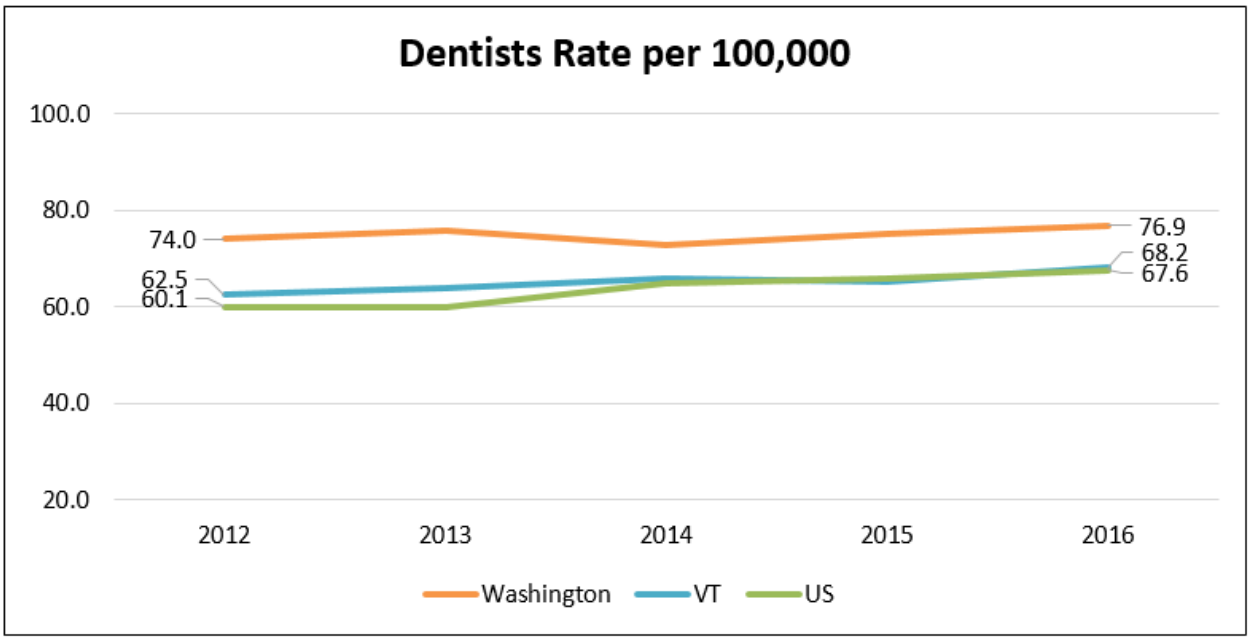


Source: Health Resources & Services Administration, 2011-2015

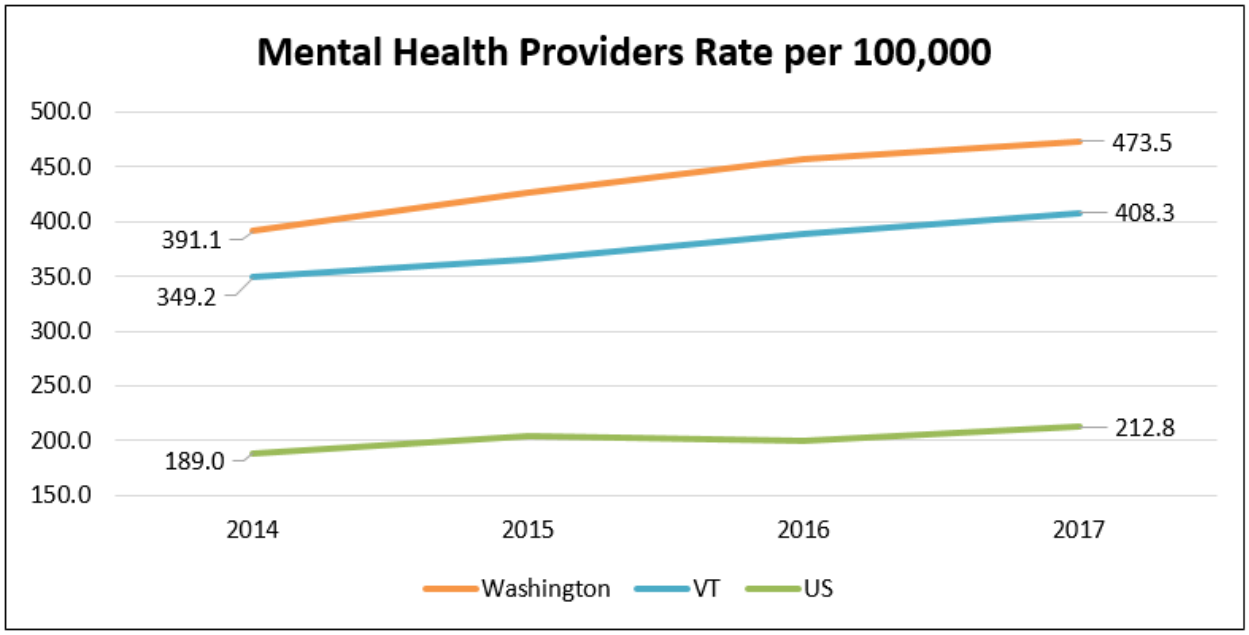
*Providers are identified based on the county in which their preferred professional mailing address is located. Provider rates do not take into account providers that serve multiple counties or satellite clinics.

Washington County has more dentists and mental health providers per 100,000 population than Vermont and the nation. The rate of mental health providers per 100,000 is more than two times greater in Washington County than in the US in general, and increased notably from 2014 to 2017.

The availability of mental health providers in Washington County is more than two times the availability across the nation, but may not reflect social access barriers (e.g. transportation and cost) experienced by residents



Source: Health Resources & Services Administration, 2012-2016

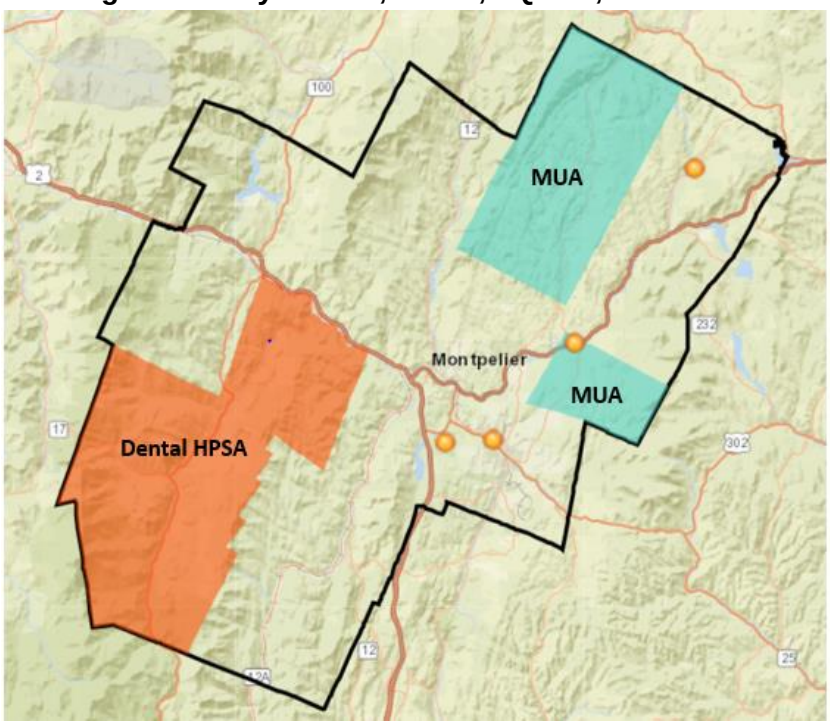


Source: Centers for Medicare and Medicaid Services, 2014-2017
*An error occurred in the County Health Rankings method for identifying mental health providers in 2013. Data prior to 2014 are not shown.

The Health Resources & Services Administration (HRSA) is responsible for designating Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas (MUAs). Shortage areas are determined based on a defined ratio of total health professionals to total population. Medically underserved areas identify geographic areas with a lack of access to primary care services. Washington County has one dental HPSA, including the towns of Fayston, Moretown, Waitsfield, and Warren. The county also has one MUA, including the towns of Calais, Plainfield, and Woodbury.

Federally Qualified Health Centers (FQHCs) are defined as "community-based health care providers that receive funds from the HRSA Health Center Program to provide primary care services in underserved areas." Services are provided on a sliding fee scale based on patient ability to pay. FQHCs, as well as free clinics, are critical to serving the health care needs of medically underserved populations. Washington County has four FQHC/free clinic locations, shown as yellow pins on the map below and listed in the accompanying table.

Washington County HPSAs, MUAs, FQHCs, and Free Clinics



FQHC and Free Clinic Locations in Washington County

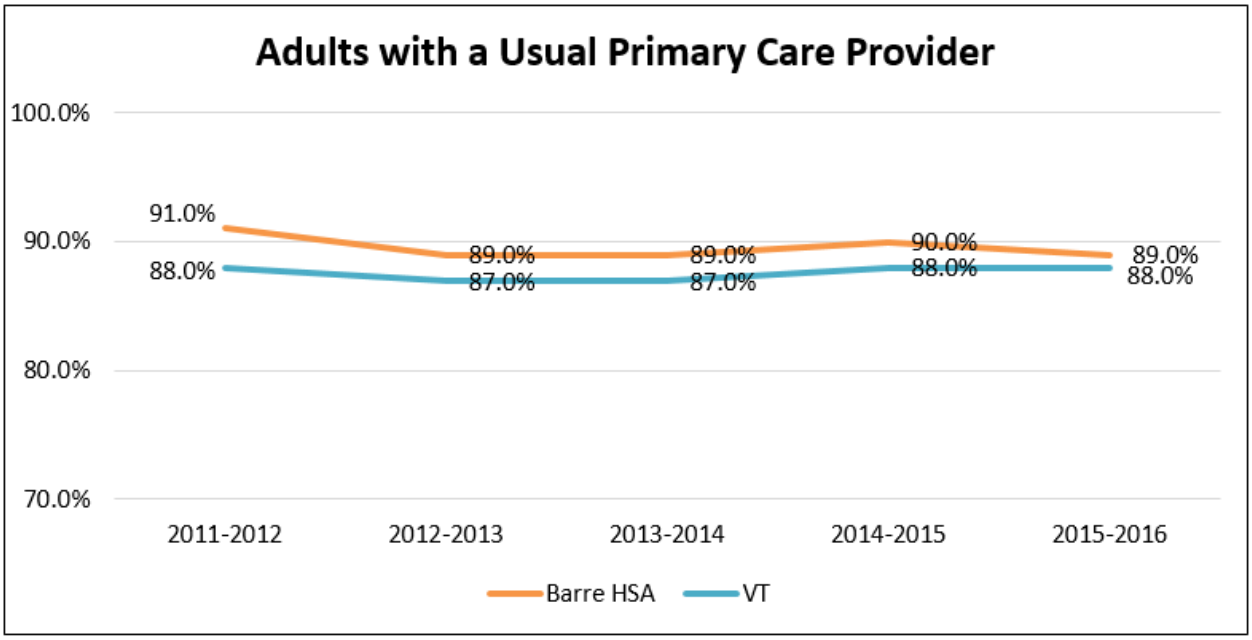
Location	Address
Cabot Health Services School Based Health Center (FQHC)	25 Common Rd, Cabot, VT 05647
Community Health Accountable Care, LLC: The Health Center (FQHC)	157 Towne Ave, Plainfield, VT 05667
Gifford Health Center at Berlin – Primary Care (FQHC)	2418 Airport Rd Suite 1, Barre, VT 05641
People's Health & Wellness Clinic (free clinic)	553 North Main Street, Barre, VT 05641

Source: Health Resources & Services Administration, 2018

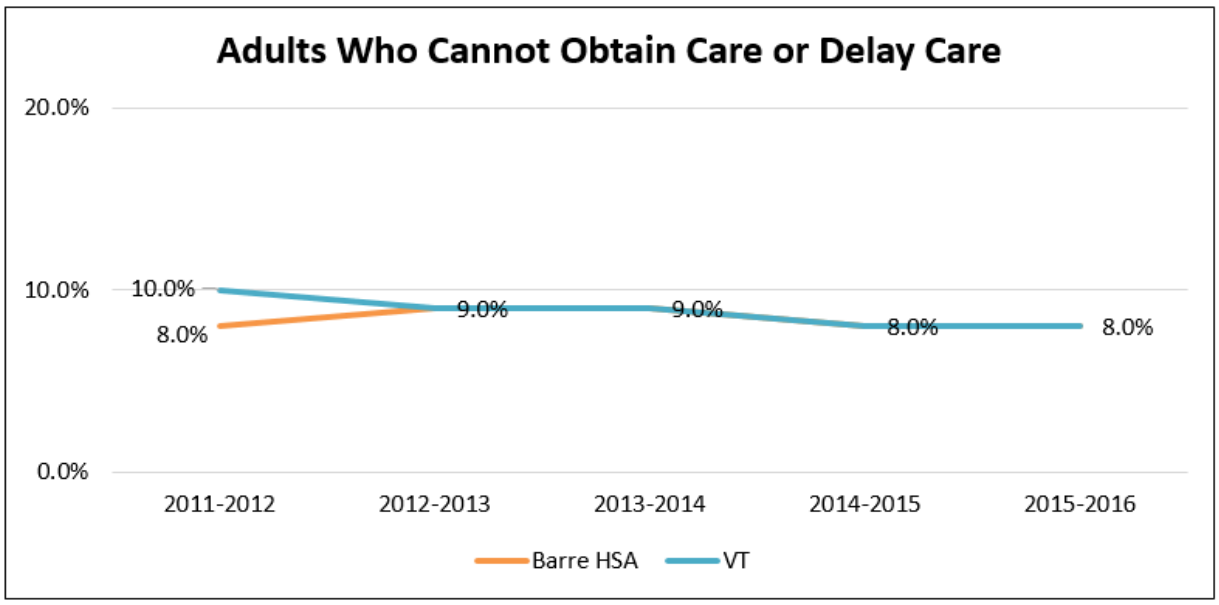
Access to a consistent primary care provider and finding a health care home is a key factor in receiving timely care when an acute or chronic need arises. While prevention remains the best way to avoid disease, early diagnosis and swift treatment can have a significant positive impact on overall health.

89% of Washington County adults have a primary care provider, a slight decline from previous years, but consistent with the state

In the Barre Hospital Service Area, comprising Washington County and five northeast towns in Orange County, residents are slightly more likely than other people in Vermont to have a usual primary care physician. Fewer than 1 in 10 adults in the Barre Hospital Service Area have delayed care or cannot obtain care, consistent with Vermont in general.



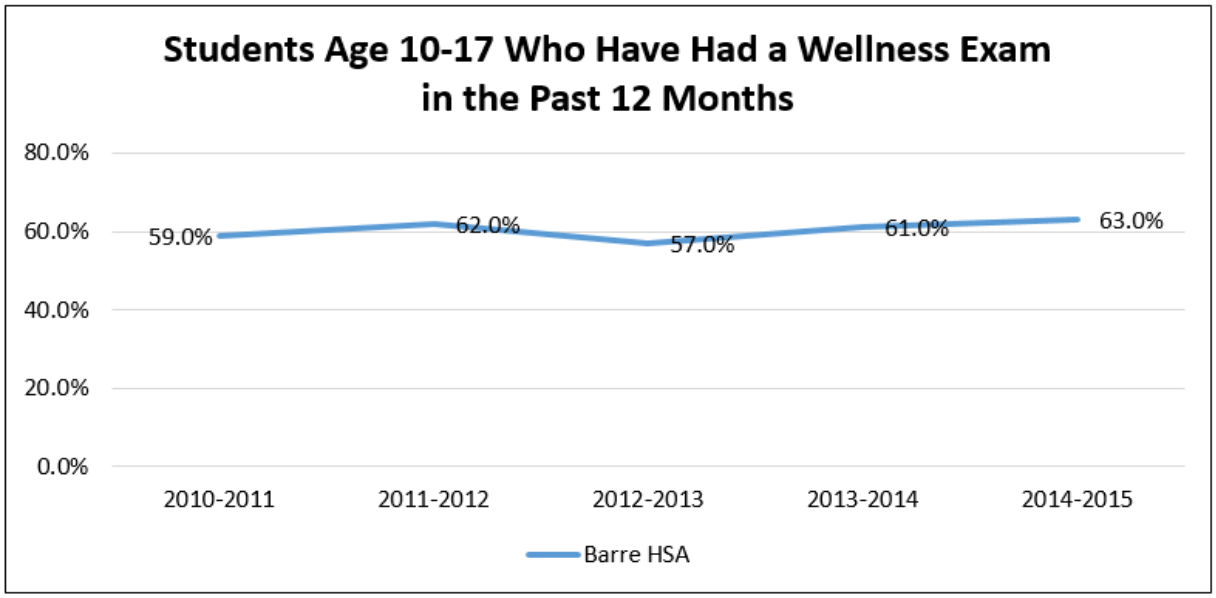
Source: VT Department of Health, 2011-2012 - 2015-2016
*The Barre Hospital Service Area (HSA) is comprised of Washington County and five towns in Orange County: Orange, Washington, Williamstown, Brookfield, and Braintree.



Source: VT Department of Health, 2011-2012 - 2015-2016
*The Barre Hospital Service Area (HSA) is comprised of Washington County and five towns in Orange County: Orange, Washington, Williamstown, Brookfield, and Braintree.

Well child visits are an important component of ensuring a healthy childhood and creating positive health habits into adulthood. While families typically prioritize well child visits for babies and toddlers, adherence to the annual wellness exam recommendation often wanes in school age children. In the Barre Hospital Service Area, 63% of older school age children reported having had a wellness exam in the previous twelve months.

The percentage of school age children receiving an annual wellness exam is increasing, but only comprises 6 out of 10 children

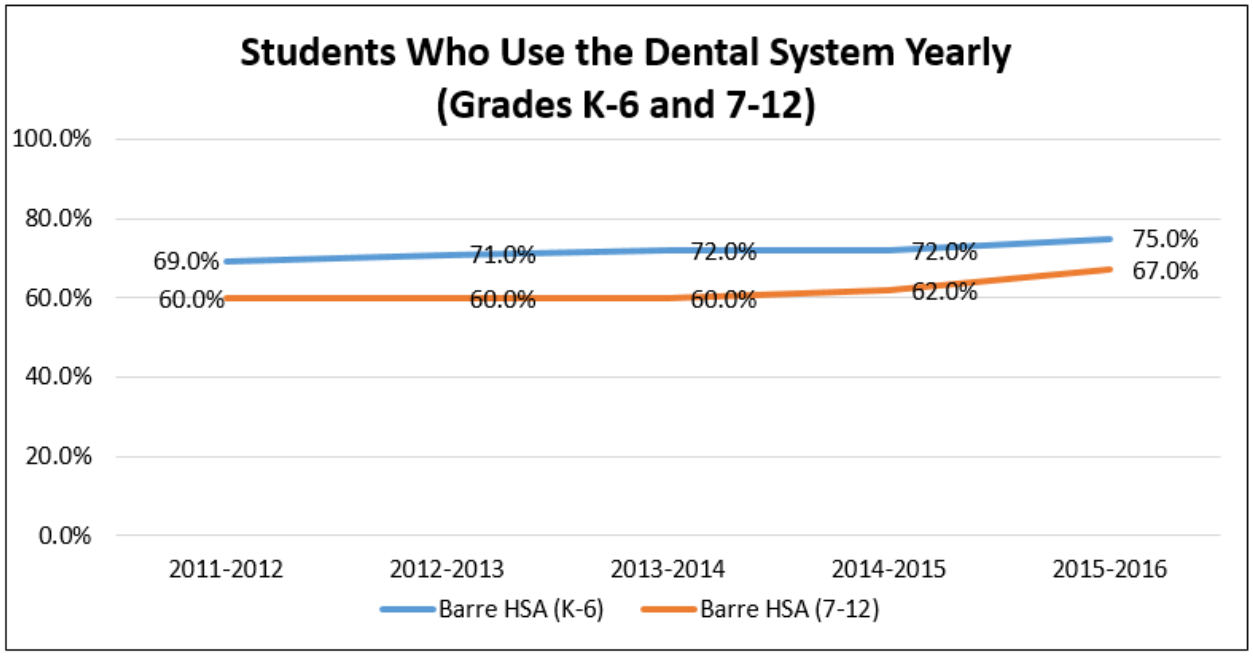


Source: VT Department of Health, 2010-2011 - 2014-2015
*The Barre Hospital Service Area (HSA) is comprised of Washington County and five towns in Orange County: Orange, Washington, Williamstown, Brookfield, and Braintree.

Regular dental care is a key element of a healthy lifestyle. Washington County has dental provider rates that exceed state and national rates, but lack of insurance, income, and other factors often interfere with individuals' ability to access dental care. Dental care access is assessed among adults on even years. In 2014/2016, 76% of Washington County adults reported visiting a dentist within the past year compared to 71% of adults statewide. Trending of this indicator is not provided due to a survey methodology change in 2011.

Children of all ages should also receive routine dental care to ensure strong dental habits and to prevent disease. Within the Barre Hospital Service Area, the percentage of students in grades K-6 and 7-12 accessing the dental system increased over the past five reporting years. However, while 75% of students in grades K-6 use the dental system yearly, smaller percentages of students in grades 7-12 (67%) use the dental system.

The percentage of children accessing dental care on a yearly basis is increasing, but is lower among students in grades 7-12 versus students in grades K-6



Source: VT Department of Health, 2011-2012 - 2015-2016
*The Barre Hospital Service Area (HSA) is comprised of Washington County and five towns in Orange County: Orange, Washington, Williamstown, Brookfield, and Braintree.

Overall Health Status and Health Behaviors

Washington County was ranked #4 out of 14 counties in Vermont for health outcomes, as reported by the 2018 University of Wisconsin County Health Rankings & Roadmaps program. Washington County was ranked #3 at the time of the 2016 CHNA. Health outcomes are measured in relation to premature death (before age 75) and quality of life.

2018 Health Outcomes County Health Rankings

#4 Washington County (#3 in 2015)

While medical care can treat disease and prolong life, longevity comes from healthy communities and healthy lifestyle choices. Residents of Washington County report fewer "poor" or "fair" health indicators than other people in Vermont and the nation. The overall premature death rate in Washington County is slightly higher than in Vermont, but lower than the US in general.

Adults in Washington County report better overall health status compared to the state and nation

Health Outcomes Indicators
(Green = Lower than State and National Benchmarks)

	Premature Death Rate per 100,000	Adults with "Poor" or "Fair" Health Status	Adults with "Poor" Physical Health	Adults with "Poor" Mental Health
Washington County	5,747	11%	10%	10%
Vermont	5,732	13%	11%	11%
United States	6,700	16%*	NA	NA

Source: National Center for Health Statistics, 2013-2015; VT Department of Health, 2015-2016; CDC, 2016
*The percentage reflects 2016 data; state and county percentages reflect 2015-2016 data due to availability.

Individual health behaviors include risky behaviors like smoking and obesity, as well as positive behaviors like exercise, good nutrition, and stress management. Practicing health promoting behaviors reduces the likelihood of disease or early death. The prevalence of these health behaviors is provided below, with benchmark comparisons as available.

Healthy People 2020 sets a target of no more than 12% of adults reporting smoking. Fewer adults in Washington County smoke than in Vermont or the nation. The percent of adult smokers in Washington County in the most recent data year is less than in previous years, nearly meeting the Healthy People 2020 target.

However, 1 in 10 Washington County teens smoke. While the percent of teen smokers in Washington County is decreasing, it is still slightly more than in Vermont or the US. Additionally, 1 in 3 teens in Washington County have tried electronic cigarettes and 1 in 10 currently use them.

1 in 3 teens have tried electronic cigarettes; 1 in 10 currently use them

Cigarette Smoking Trends among Adults and Youth
(Green = Decrease of More than 2 Points)

	Adult Smoking		Youth (Grades 9-12) Smoking	
	2011-2012	2015-2016	2011	2017
Washington County	17%	15%	14%	10%
Vermont	17%	18%	15%	9%
United States	20%*	17%*	18%	9%
Healthy People 2020	12%	12%	NA	NA

Source: VT Department of Health, 2011-2012, 2015-2016, 2011, 2017; CDC, 2012, 2016, 2011, 2017
*Percentages are reported for single-year 2012 or 2016 based on data availability.

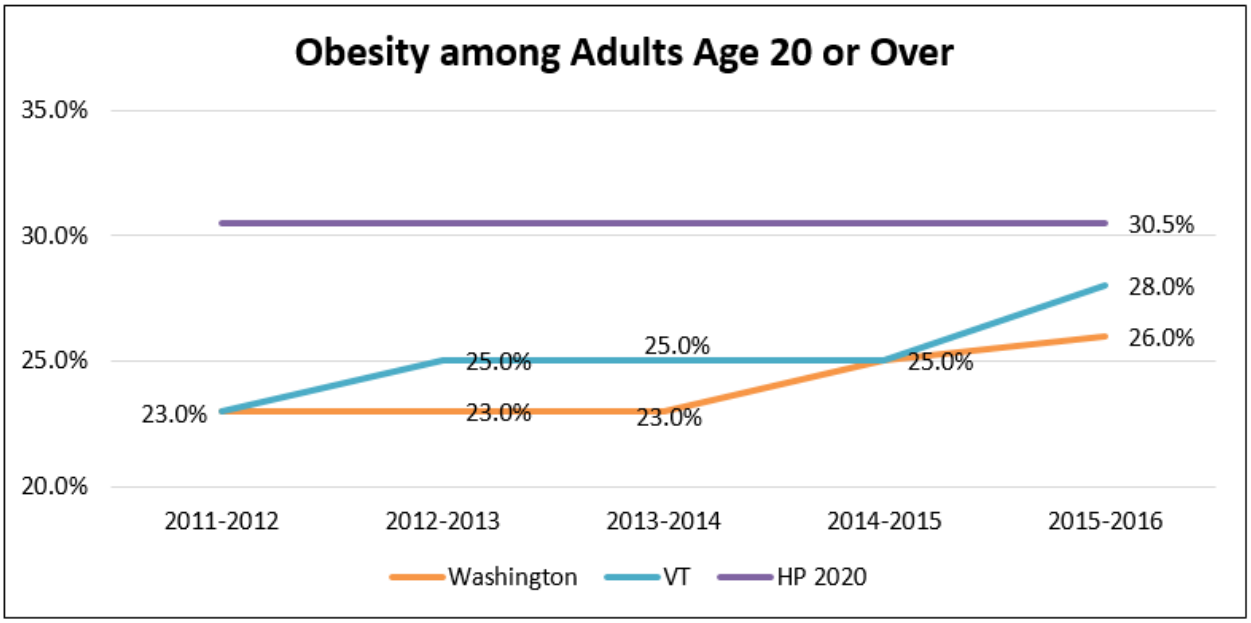
Electronic Cigarette Trends among Youth (Grades 9-12)

	Ever Used		Current Use	
	2015	2017	2015	2017
Washington County	28%	33%	13%	12%
Vermont	30%	34%	15%	12%
United States	45%	42%	24%	13%

Source: VT Department of Health, 2015, 2017; CDC, 2015, 2017
*Data prior to 2015 is not available.

Healthy People 2020 sets a goal of having no more than 30.5% of all adults obese. Roughly 1 in 4 adults in Washington County is obese, fewer than Vermont and better than the Healthy People 2020 target. While the percent of obese adults in Washington County is lower, the percent has been rising in recent years.

Fewer Washington County adults are obese compared to the state, but the percentage is increasing



Source: VT Department of Health, 2011-2012 - 2015-2016

While many factors can contribute to obesity, healthy eating and physical activity have been proven to reduce the likelihood of experiencing obesity or being overweight. Healthy eating and physical activity are impacted by a variety of social factors including access to healthy food, income, transportation, health literacy, as well as personal choice.

Washington County adults are more likely to report healthy eating and physical activity than adults across the state or nation

Adults in Washington County are generally healthy eaters compared to the state overall. More than 1 in 3 adults in the county eat fruit two or more times per day, and more than 1 in 5 adults eat vegetables three or more times per day, more than most people in Vermont. Four out of 5 adults in Washington County participate in physical activity in their leisure time, commensurate with Vermont, and better than the nation in general.

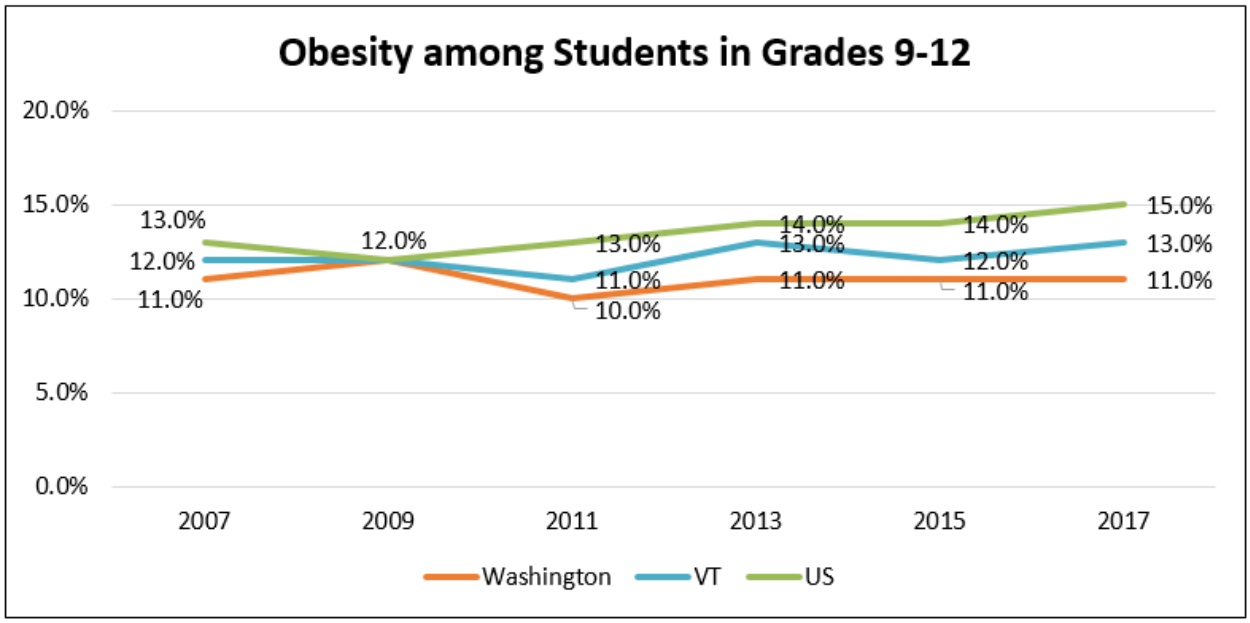
Healthy Eating and Exercise: Adults
(Green = Higher than State and National Benchmarks)

	Adults Eating Fruit 2 or More Times Daily	Adults Eating Vegetables 3 or More Times Daily	Adults with No Leisure Time Physical Activity
Washington County	36%	22%	18%
Vermont	32%	20%	18%
United States	NA	NA	23%*

Source: VT Department of Health, 2013/2015, 2015-2016; CDC, 2016
*The percentage reflects 2016 data; state and county percentages reflect 2015-2016 data due to availability.

Among Washington County youth, roughly 1 in 10 teens are obese, a percentage that has stayed stable for more than five years. This percentage is fewer than in Vermont or the US in general.

Obesity among high school students remained stable and lower than the state and nation



Source: VT Department of Health, 2007-2017; CDC, 2007-2017

Healthy lifestyle habits such as healthy eating and regular exercise are important routines to establish in young people. Nine out of 10 teens in Washington County drink one or fewer sugar sweetened drinks per day. One in 3 Washington County teens eat fruit two or more times per day, consistent with the state, but fewer youth eat vegetables three or more times daily. Nearly 80% of 9-12 grade students in Washington County do not meet the physical activity guidelines for their age group.

Less than 1 in 4 youth meet physical activity guidelines

Healthy Eating and Exercise: Youth (Grades 9-12)
(Red = Lower than State Benchmark)

	Youth Consuming Less than 1 Sugar Sweetened Drink per Day	Youth Eating Fruit 2 or More Times Daily	Youth Eating Vegetables 3 or More Times Daily	Youth Meeting Physical Activity Guidelines
Washington County	90%	34%	17%	22%
Vermont	88%	33%	18%	25%

Source: VT Department of Health, 2017

Food insecurity, defined as being without a consistent source of sufficient and affordable nutritious food, negatively impacts the opportunity for healthy eating and healthy weight management. People in Washington County experience less food insecurity than people across Vermont or the nation. However, nearly 1 in 5 children in the county are food insecure.

16% of Washington County children are food insecure, and one-third are eligible for free or reduced price lunch

Access to free and reduced price lunch for low income school children can help ameliorate food insecurity for households with children. Eligibility for free lunch includes households with an income at or below 130% of the poverty threshold, while eligibility for reduced price lunch includes households with an income between 130% and 185% of the poverty threshold. Roughly 1 in 3 children in Washington County are eligible for free or reduced price lunch, slightly fewer than Vermont in general.

Food Insecure Residents

	All Residents	Children
Washington County	11.3%	16.0%
Vermont	12.1%	15.7%
United States	12.9%	17.5%

Source: Feeding America, 2016

Children Eligible for Free or Reduced Price Lunch

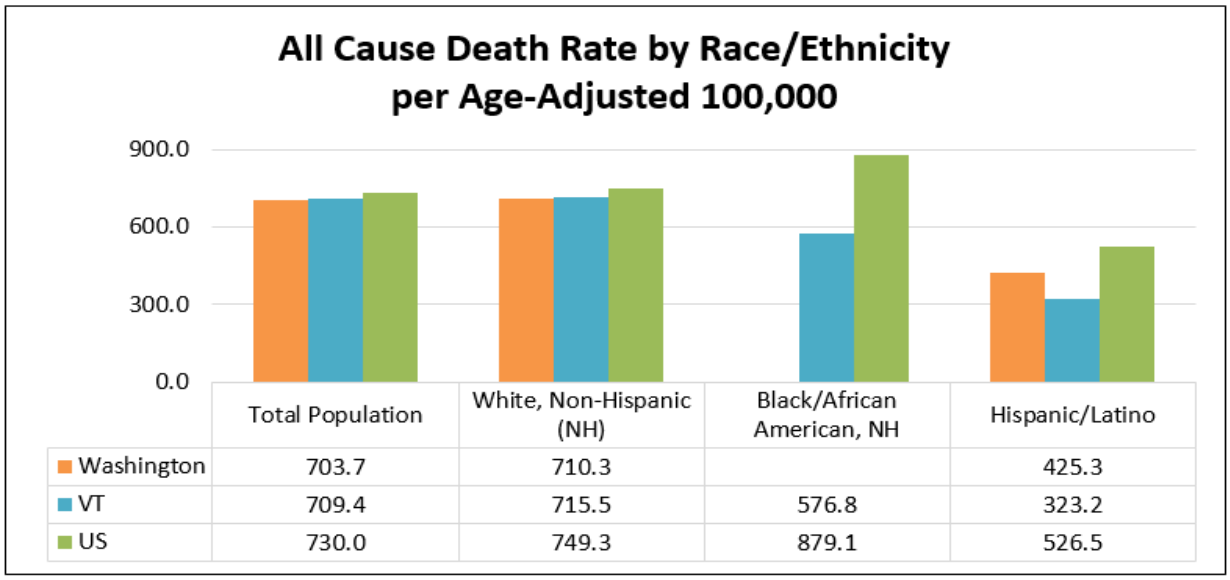
	Percent
Washington County	33.1%
Vermont	38.4%

Source: National Center for Education Statistics, 2015-2016

Mortality

The following graph depicts the all cause age-adjusted death rate by race and ethnicity. Residents of Washington County have a lower rate of death than the state and nation, consistent with higher overall longevity.

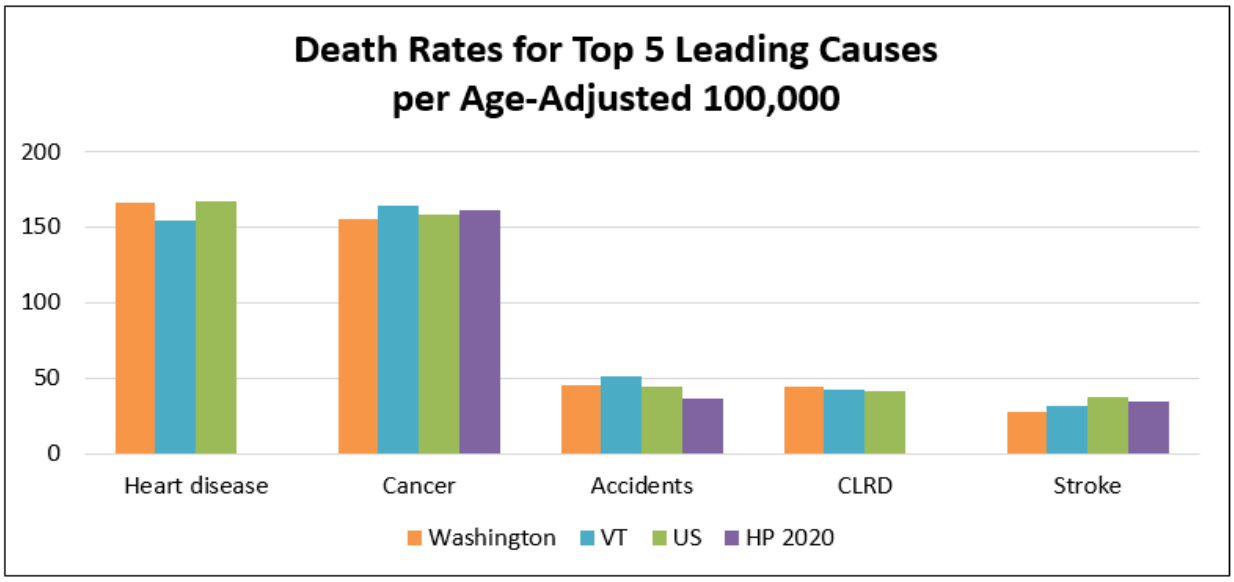
Washington County and Vermont have lower death rates than the nation



	Total Population	White, Non-Hispanic (NH)	Black/African American, NH	Hispanic/Latino
Washington	703.7	710.3		425.3
VT	709.4	715.5	576.8	323.2
US	730.0	749.3	879.1	526.5

Source: CDC, 2013-2017
*Data for Washington County are reported as available due to low death counts.

The top five causes of death in the nation, in rank order, are heart disease, cancer, accidents, chronic lower respiratory disease (CLRD), and stroke. The following chart profiles death rates for the top five leading causes of death in Washington County, Vermont, and the nation. Trending data for many of these causes are depicted in the following sections to show areas of improvement and opportunity.



Source: CDC, 2013-2017

Chronic Diseases

Chronic diseases such as heart disease, stroke, and diabetes account for much of the underlying causes of death and disability. Many chronic diseases can be prevented through avoiding or reducing negative health behaviors like smoking and alcohol use, and by increasing physical activity and healthy eating. Most chronic diseases are treatable if detected early, and if support is provided to reduce risk behaviors and increase health promoting behaviors.

Heart Disease and Stroke

Key risk factors for heart disease and stroke are hypertension and high cholesterol. In Washington County, the prevalence of hypertension is generally consistent with the state and nation, but the prevalence of high cholesterol is higher. Nearly 1 in 10 adults have a cardiovascular disease diagnosis, consistent with the state.

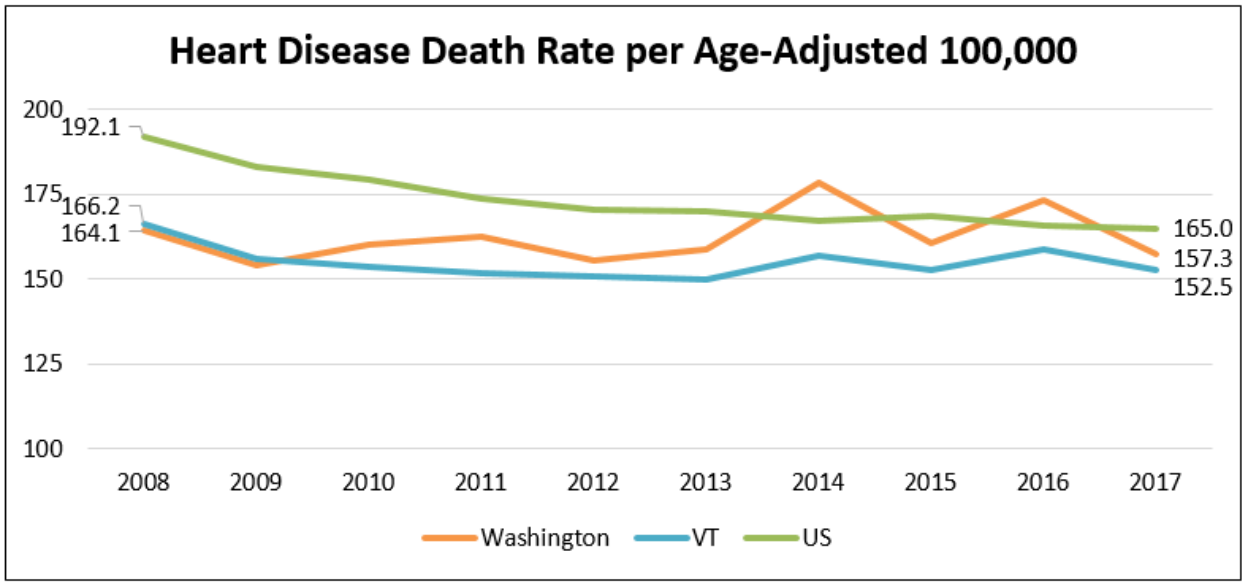
More than 1 in 4 Washington County adults have hypertension and/or high cholesterol; 1 in 10 have cardiovascular disease

The death rate for heart disease in Washington County is lower than the nation, but higher than Vermont in general. The rate of death due to heart disease has been decreasing in Vermont and the nation, but variable in Washington County.

Heart Disease Prevalence among Adults
(Red = Higher than State and National Benchmarks)

	Cardiovascular Disease (including Stroke)	Hypertension	High Cholesterol
Washington County	8%	28%	39%
Vermont	8%	25%	34%
United States*	NA	31%	36%

Source: VT Department of Health, 2013/2015, 2014-2015; CDC, 2015
*Percentages reflect 2015 data; state and county percentages reflect 2013/2015 data due to availability.



Source: CDC, 2008-2017

Coronary heart disease is characterized by the buildup of plaque inside the coronary arteries. Several types of heart disease, including coronary heart disease, are risk factors for stroke. Vermont and the nation meet the Healthy People 2020 goal for coronary heart disease death, but the death rate due to coronary heart disease in Washington County is higher than both geographies.

Healthy People 2020 sets a goal for no more than 34.8 deaths per 100,000 population due to stroke. Washington County meets the goal, and has a better stroke death rate than Vermont and the nation.

Washington County meets the HP 2020 goal for stroke death, but has a higher rate of death due to coronary heart disease

Coronary Heart Disease and Stroke Death Rates
(Green = Lower than the State and the Nation;
Red = Higher than the State and the Nation)

	Coronary Heart Disease Death per Age-Adjusted 100,000	Stroke Death per Age-Adjusted 100,000
Washington County	111.2	27.9
Vermont	100.8	31.5
United States	97.1	37.1
Healthy People 2020	103.4	34.8

Source: CDC, 2013-2017

Cancer

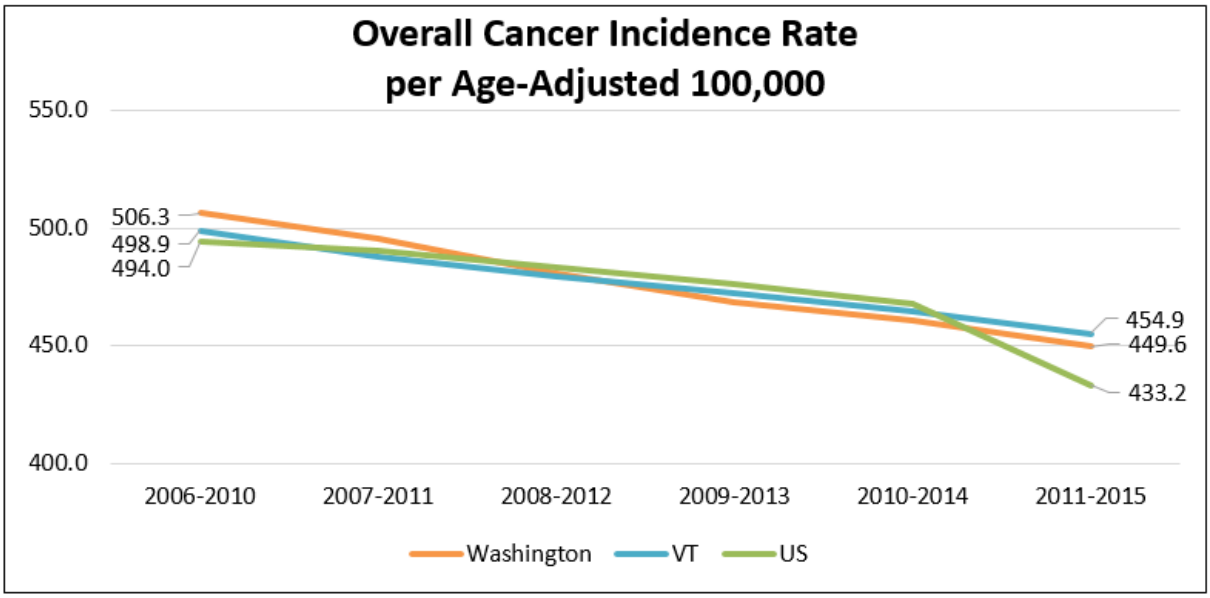
Cancer remains a leading cause of death, but if detected early, can often be effectively treated. Washington County has a similar percentage of adults who have ever been diagnosed with cancer as Vermont in general. When compared to the nation, Washington County and Vermont have a higher incidence of all cancers.

Washington County has a similar cancer incidence rate as the state, but a lower cancer death rate, suggesting early detection and effective treatment

Adult Cancer Prevalence

	Adults who Have Ever had Cancer
Washington County	7%
Vermont	8%

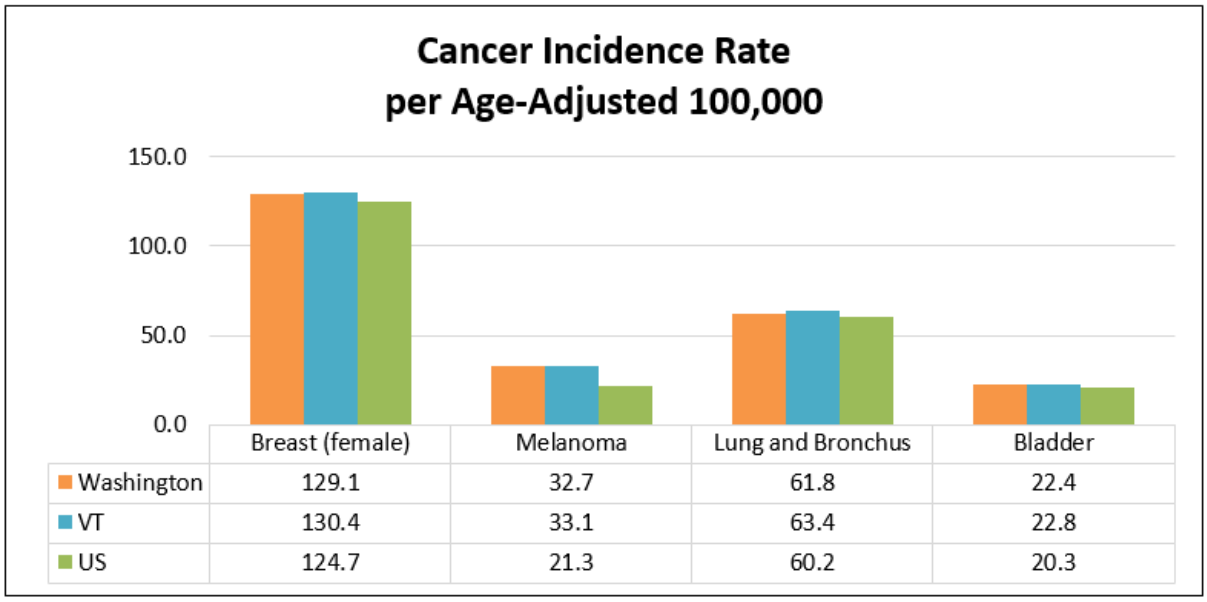
Source: VT Department of Health, 2015-2016



Source: VT Department of Health, 2006-2010 – 2011-2015; CDC, 2006-2010 – 2011-2015

Presented below are the incidence rates for commonly diagnosed cancers for Washington County, Vermont, and the nation. Similar to the overall incidence rate, the incidence of these four common cancers is slightly higher in Vermont than the nation. Washington County has similar incidence rates for these cancers as the state.

Washington County and Vermont overall have a higher incidence of melanoma cancer



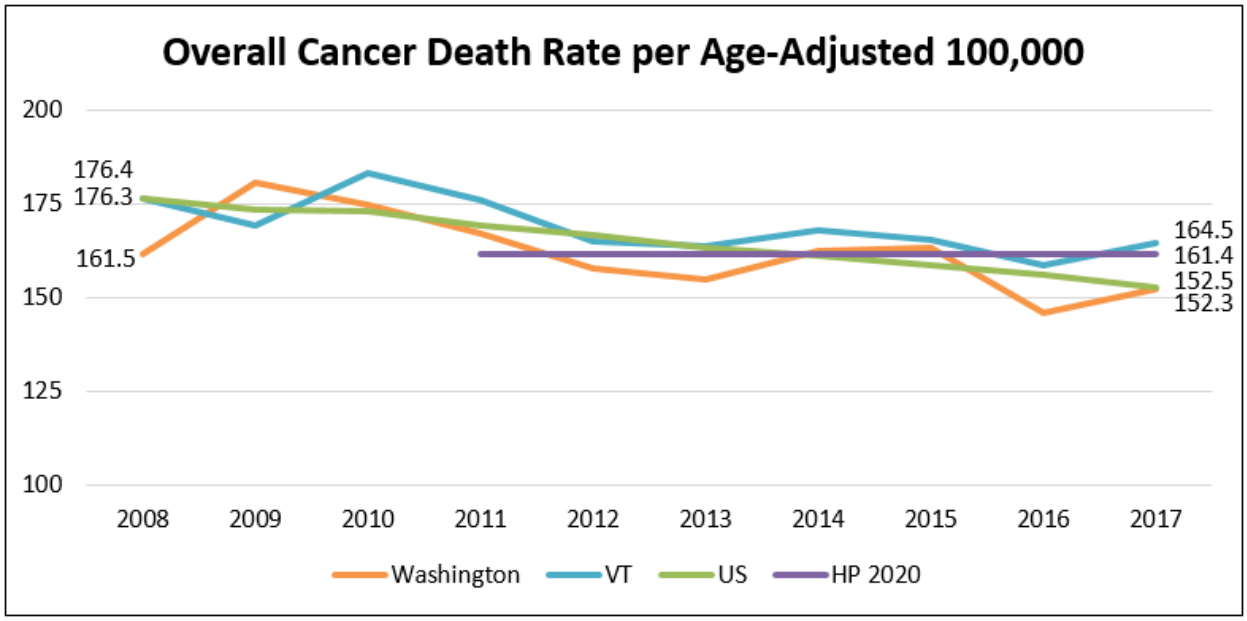
	Breast (female)	Melanoma	Lung and Bronchus	Bladder
Washington	129.1	32.7	61.8	22.4
VT	130.4	33.1	63.4	22.8
US	124.7	21.3	60.2	20.3

Source: VT Department of Health, 2011-2015; CDC, 2011-2015

Although the incidence of cancer in Washington County is slightly higher than the nation, the death rate due to cancer is lower than the state and the nation and decreasing. Higher

The Washington County cancer death rate is lower than the state and nation and decreasing

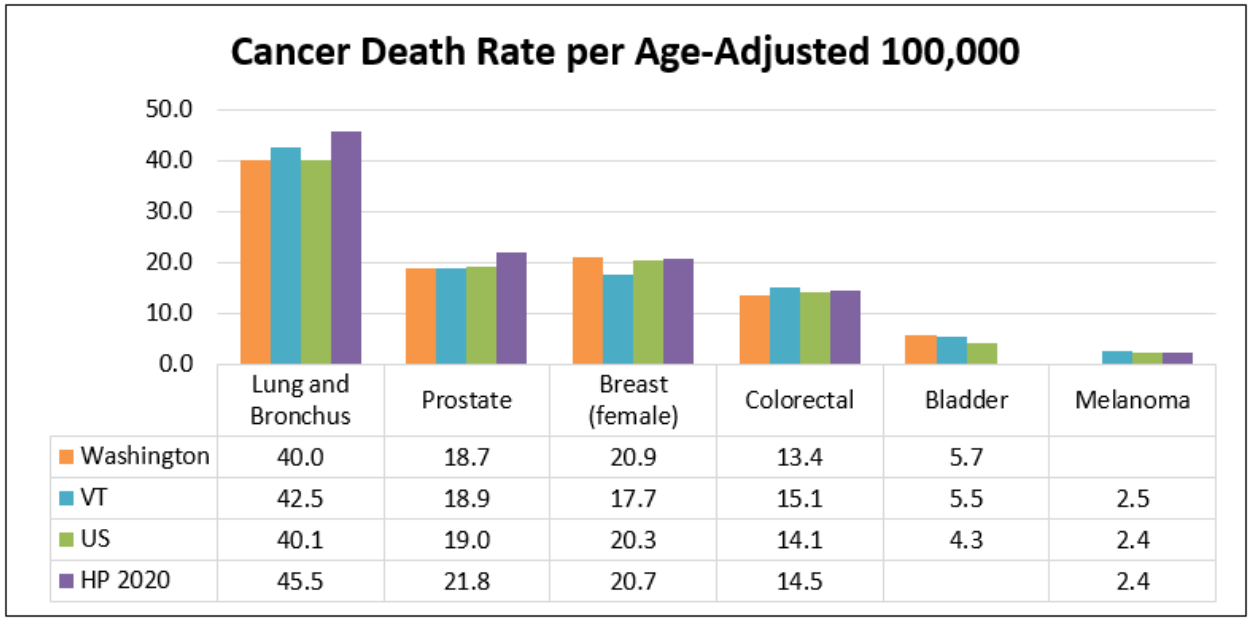
incidence, coupled with lower death rates, is often an indication of early detection of cancer, which makes a positive outcome more likely.



Source: CDC, 2008-2017

Presented below are the death rates for commonly diagnosed cancers and causes of death. Healthy People 2020 has set death rate goals for nearly all of these cancers. Washington County has met or nearly met all of the Healthy People 2020 goals.

Washington County meets HP 2020 goals for lung, prostate, and colorectal cancer deaths



	Lung and Bronchus	Prostate	Breast (female)	Colorectal	Bladder	Melanoma
Washington	40.0	18.7	20.9	13.4	5.7	
VT	42.5	18.9	17.7	15.1	5.5	2.5
US	40.1	19.0	20.3	14.1	4.3	2.4
HP 2020	45.5	21.8	20.7	14.5		2.4

Source: CDC, 2013-2017

*The melanoma death rate for Washington County is not reported due to low death counts.

Many forms of cancer, if identified early, can be successfully treated. Three of the most common forms of cancer (cervical, breast, and colon) have effective and relatively low cost screenings for early detection. More than 7 in 10 adults in Washington County receive recommended cancer screenings.

Washington County adults are more likely to receive cervical (female) and colorectal cancer screenings compared to the state

Adult Cancer Screening
(Green = Higher than State Benchmark)

	Females Age 21-65 Receiving Cervical Cancer Screening	Females Age 50-74 Receiving Breast Cancer Screening	Adults Age 50-75 Receiving Colorectal Cancer Screening
Washington County	89%	77%	75%
Vermont	86%	79%	72%

Source: VT Department of Health, 2012/2014, 2014/2016

Cancer treatment is lengthy and physically and emotionally difficult. Staying healthy after cancer treatment requires diligence and encouragement. More than 3 out of 4 Washington County cancer survivors report strong emotional support and good or excellent health. This finding indicates a healthy and supportive community infrastructure.

Washington County cancer survivors are more likely to receive emotional support compared to the state

Adult Cancer Survivor Outcomes
(Green = Higher than State Benchmark)

	Always or Usually Get Emotional Support	Report Good to Excellent General Health
Washington County	83%	77%
Vermont	82%	68%

Source: VT Department of Health, 2014/2016, 2015-2016

Chronic Lower Respiratory Disease

Chronic lower respiratory disease (CLRD) is the third most common cause of death in the nation. CLRD encompasses diseases like chronic obstructive pulmonary disorder (COPD), emphysema, and asthma, all of which contribute to lower quality of life and increased risk of early death. Washington County residents are less likely to have a diagnosis of asthma or COPD than other people in Vermont or the nation.

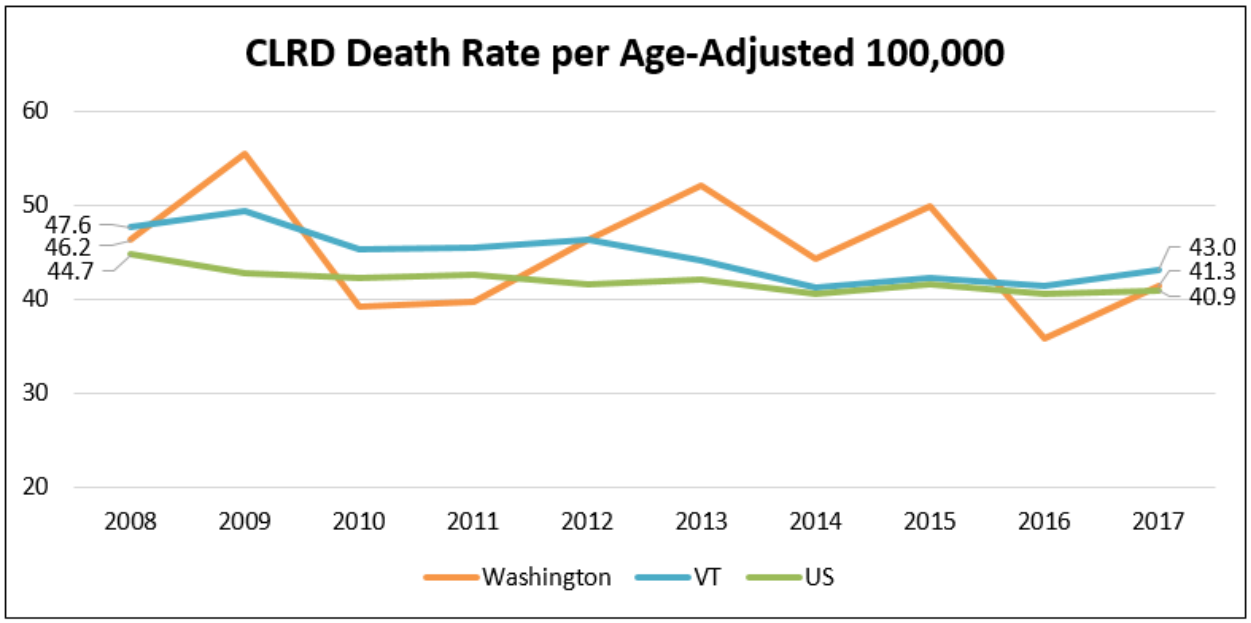
Washington County adults are less likely to smoke and have a lower prevalence of lung disease

CLRD Prevalence

	Adults with an Asthma Diagnosis	Children with an Asthma Diagnosis	Adults with a COPD Diagnosis
Washington County	9.1%	8.3%	5.6%
Vermont	10.6%	8.3%	6.0%
United States*	9.3%	NA	6.3%

Source: VT Department of Health, 2015-2016 CDC, 2016
*Percentages reflect 2016 data; state and county percentages reflect 2015-2016 data due to availability.

The rate of death due to CLRD in Washington County has been variable. While the current rate is lower than the state and the nation, it increased from 2016.

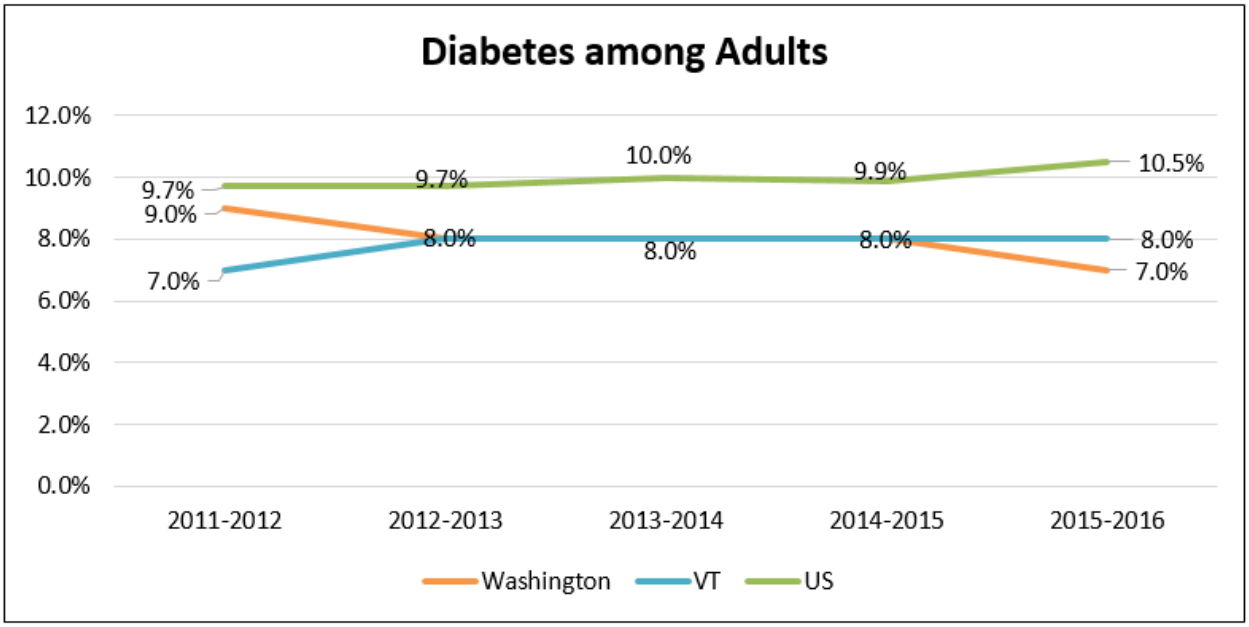


Source: CDC, 2008-2017

Diabetes

Diabetes is among the top 10 causes of death in the nation. According to the American Diabetes Association, diabetes and prediabetes affect more than 110 million Americans and cost $322 billion per year. Type II diabetes, the most common form, is preventable, and if diagnosed early, can often be treated through improved diet and increased exercise. Fewer Washington County adults have been diagnosed with diabetes than the state or nation.

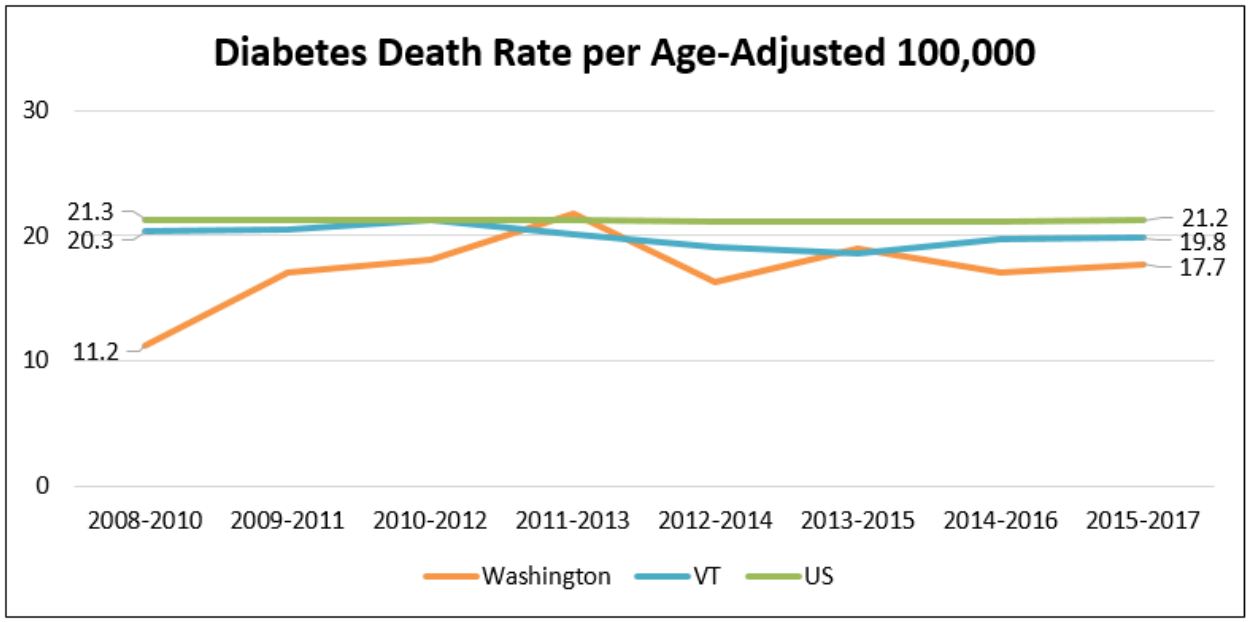
Fewer Washington County adults have a diabetes diagnosis, and the percentage is declining



Source: VT Department of Health, 2011-2012 – 2015-2016; CDC, 2012-2016
*The national percentage is reported annually (2012-2016); state and county percentages are reported as two-year averages based on data availability.

Consistent with the current prevalence of diabetes, the death rate due to diabetes in Washington County has been variable, but is lower than the state and nation. However, the rate of death due to diabetes in Washington County has been increasing in recent years, which is a move in the wrong direction.

The diabetes death rate is lower than the state and nation, but increasing



Source: CDC, 2008-2010 – 2015-2017

Senior Health

Seniors face a growing number of challenges related to health and well-being as they age. People over 65 are more prone to chronic disease, social isolation, and disability. The following sections highlight key health indicators for the region's senior population.

Washington County and Vermont senior Medicare beneficiaries are less likely to have chronic conditions compared to the nation

According to the CDC, "Among Medicare fee-for-service beneficiaries, people with multiple chronic conditions account for 93% of total Medicare spending." Identifying and providing regular treatment of chronic conditions can improve quality of life, promote longevity, and reduce health care spending for seniors. The tables below note the percentage of Medicare beneficiaries who have been diagnosed with a chronic condition.

Number of Chronic Conditions among Medicare Beneficiaries 65 Years or Over

	Washington County	Vermont	United States
0 to 1 condition	40.3%	42.6%	32.3%
2 to 3 conditions	31.2%	31.2%	30.0%
4 to 5 conditions	17.9%	16.3%	21.6%
6 or more conditions	10.6%	9.8%	16.2%

Source: Centers for Medicare & Medicaid Services, 2015

Nearly 17% of Washington County senior Medicare beneficiaries have depression, higher than the state and nation

While Medicare beneficiaries in Washington County are less likely than their peers across Vermont and the US to experience most chronic conditions, they are more likely to experience depression. This finding further reinforces the need for mental health screening and treatment services across all age groups.

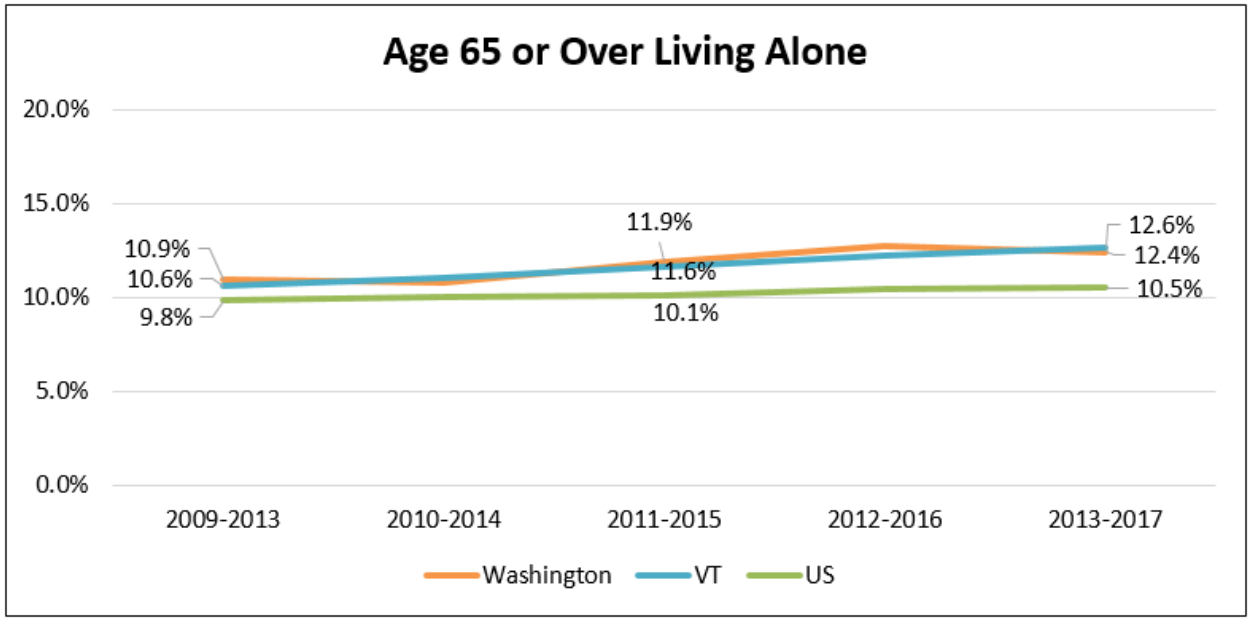
Chronic Conditions among Medicare Beneficiaries 65 Years or Over (Green = Lower than State and National Benchmarks; Red = Higher than State and National Benchmarks)

	Washington County	Vermont	United States
Alzheimer's Disease	9.5%	8.8%	11.3%
Arthritis	28.6%	26.8%	31.3%
Asthma	6.9%	6.5%	7.6%
Cancer	7.9%	7.8%	8.9%
COPD	10.0%	9.4%	11.2%
Depression	16.5%	14.7%	14.1%
Diabetes	20.4%	20.0%	26.8%
Heart Failure	11.1%	10.1%	14.3%
High Cholesterol	38.3%	32.5%	47.8%
Hypertension	47.4%	46.2%	58.1%
Ischemic Heart Disease	20.8%	22.2%	28.6%
Stroke	2.7%	3.0%	4.2%

Source: Centers for Medicare & Medicaid Services, 2015

As seniors age, they are at risk for isolation due to physical limitations and decreasing social circles. One indicator of isolation is the percentage of seniors age 65 or over who live alone. In Vermont, seniors are more likely to live alone than seniors across the nation, and the percentage is increasing. Social isolation among seniors may be a contributor to the high number of seniors with depression in Washington County.

Washington County and Vermont seniors are more likely to live alone compared to the nation



Source: US Census Bureau, 2009-2013 – 2013-2017

Regular screenings are essential for the early detection and management of chronic conditions. The following table lists the prevalence of diabetes and mammogram screenings among Medicare enrollees. Seniors in Washington County are more likely to have preventative screenings for diabetes and breast cancer than most Americans.

Chronic Disease Screenings among Medicare Enrollees
(Green = Higher than State and National Benchmarks)

	Annual hA1c Test from a Provider (65-75 Years)	Mammogram in Past Two Years (67-69 Years)
Washington County	94.2%	67.0%
Vermont	90.5%	68.4%
United States	85.0%	63.0%

Source: Dartmouth Atlas of Health Care, 2014

According to the National Institute on Aging, “Although one does not die of Alzheimer's disease, during the course of the disease, the body's defense mechanisms ultimately weaken, increasing susceptibility to catastrophic infection and other causes of death related to frailty.”

The Washington County age-adjusted death rate due to Alzheimer’s disease (38.0 per 100,000) exceeds state (35.8 per 100,000) and national (28.0 per 100,000) rates.

The Washington County Alzheimer’s disease death rate is higher than state and national rates

Vaccination is a cost effective way to protect against preventable diseases. Vaccinations for influenza (flu) and pneumonia are considered priorities for older adults. The shingles vaccination is also recommended for healthy adults 60 years or over. Washington County seniors are more likely to have received pneumonia, shingles, and flu vaccines than their peers in Vermont and the US.

Washington County seniors are more likely to receive recommended immunizations

Immunizations among Older Adults
(Green = Higher than State and National Benchmarks)

	Received an Annual Flu Vaccination (Age 65+)	Ever Received a Pneumonia Vaccination (Age 65+)	Received a Shingles Vaccination (Age 60+)
Washington County	63%	83%	56%
Vermont	59%	77%	50%
United States*	59%	73%	NA

Source: VT Department of Health, 2015-2016; CDC, 2016
*Percentages reflect 2016 data; state and county percentages reflect 2015-2016 data due to availability.

Mental Health and Substance Use Disorder

Mental Health
Mental health disorders are major contributors to decreased quality of life and can lead to early death. However, if properly diagnosed, there are many effective treatments. Regular screening for mental health concerns, depression in particular, is a useful intervention to improve outcomes for affected individuals.

1 in 4 Washington County adults have a diagnosed depressive disorder, higher than the state and nation

In Washington County, 1 in 4 adults have been diagnosed with depression, more than in Vermont or the US. Screenings for depression for Medicaid beneficiaries of all ages happen far less frequently in Washington County than in other places in Vermont. These indicators suggest opportunities for intervention in order to improve outcomes for Washington County residents.

Washington County Medicaid beneficiaries are less likely to receive depression screenings than their statewide peers

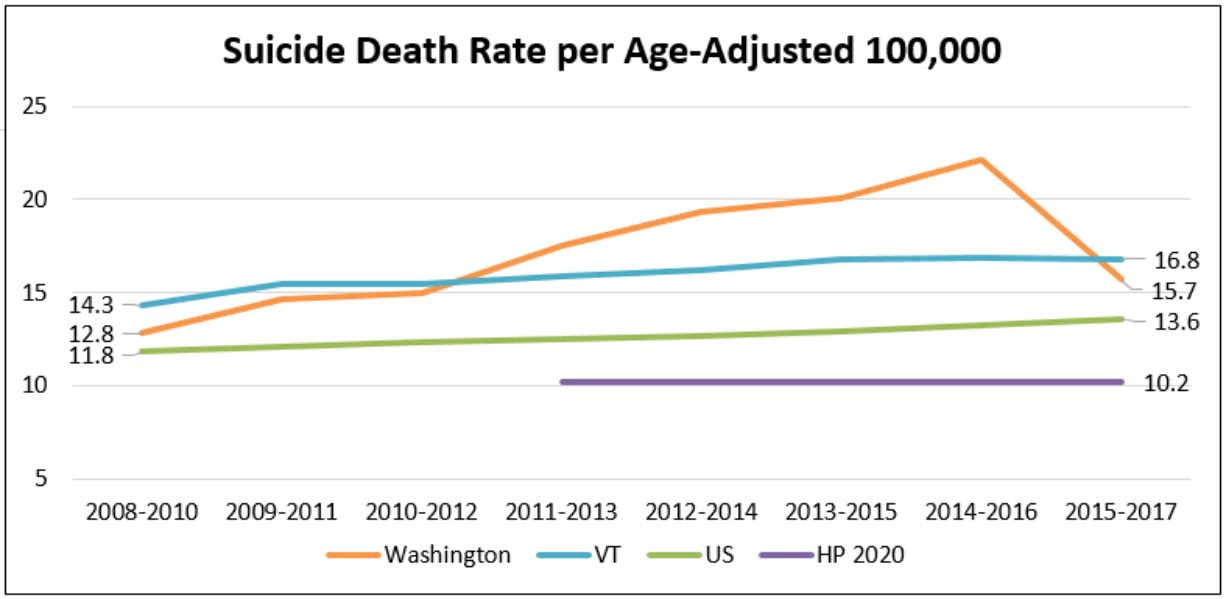
Depression Screening and Prevalence
(Red = Lower than State Benchmark)

	Depression Screening among Medicaid Beneficiaries		Adults with Diagnosed Depression
	Age 10-17	Age 18 or Older	
Washington County	3%	2%	25.5%
Vermont	18%	5%	22.2%
United States	NA	NA	17.4%*

Source: VT Department of Health, 2015-2016; CDC 2016
*The percentage reflects 2016 data; state and county percentages reflect 2015-2016 data due to availability.

Healthy People 2020 sets a target of no more than 10.2 deaths per 100,000 population due to suicide. Vermont overall has a higher suicide death rate than the nation. The Washington County suicide death rate increased sharply from 2008-2010 to 2014-2016. While the rate of death due to suicide decreased in the most recent reporting year, it still has a long way to go to meet the Healthy People 2020 target.

The Washington County suicide rate decreased sharply in 2015-2017, but has historically been higher than the state and nation

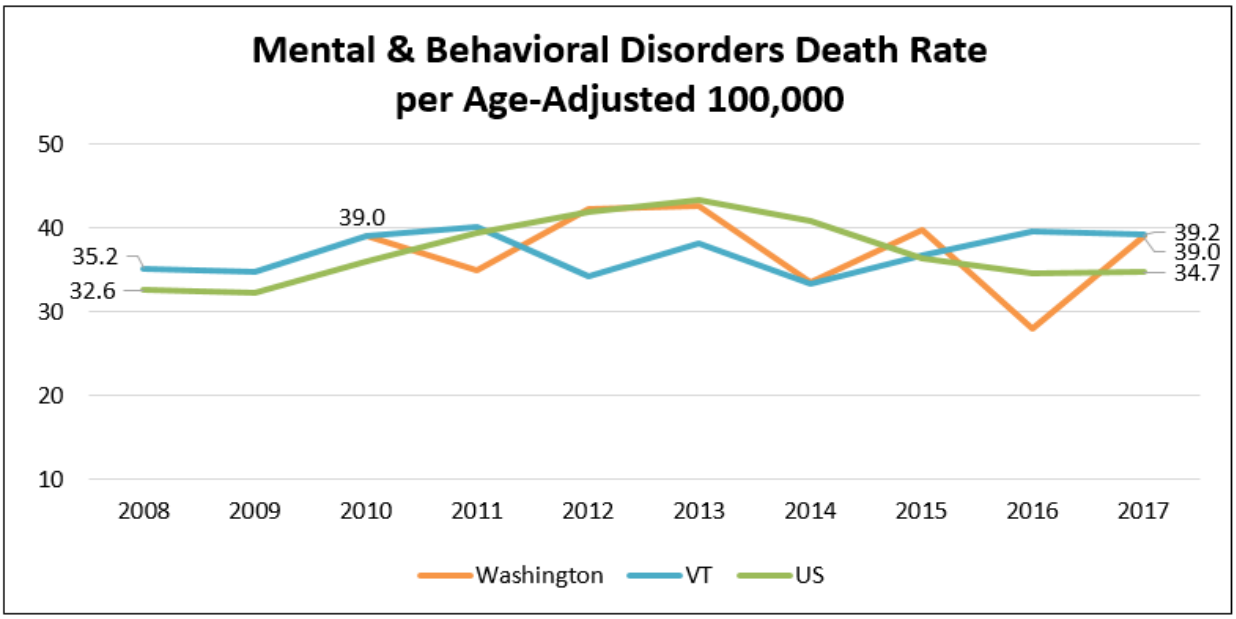


Source: CDC, 2008-2010 – 2015-2017

Mental and behavioral disorders span a wide range of diagnoses, including disorders due to psychoactive substance use, anxiety disorders, Schizophrenia and other delusional disorders, and mood or personality disorders. The disorders are not induced by alcohol and other psychoactive substances, but they may result from long-term substance abuse.

The death rate due to mental and behavioral health disorders in Washington County has been variable over the past decade. The current death rate is similar to the state wide rate; both Vermont and Washington County have a slightly higher rate of death than the nation. In recent

years, the death rate due to mental and behavioral health disorders decreased nationally, but increased in Vermont. This finding suggests an opportunity for intervention to understand the underlying causes of the trend.



Source: CDC, 2008-2017
*Mental and behavioral disorders death rate data for Washington County are not reported for 2009 due to low death counts (n=19). The 2008 death rate is 27.5.

Substance Use Disorder

The category of substance use disorder includes alcohol and drug use, including the use of prescription drugs outside of the prescribed use. While substance use disorder is not caused by mental health disorders, the combination can exacerbate the effects of both.

1 in 5 Washington County adults report binge drinking, higher than the state and nation

Binge drinking includes five or more drinks on one occasion for men and four or more drinks on one occasion for women. One in 5 Washington County adults report binge drinking, more than in Vermont and the nation.

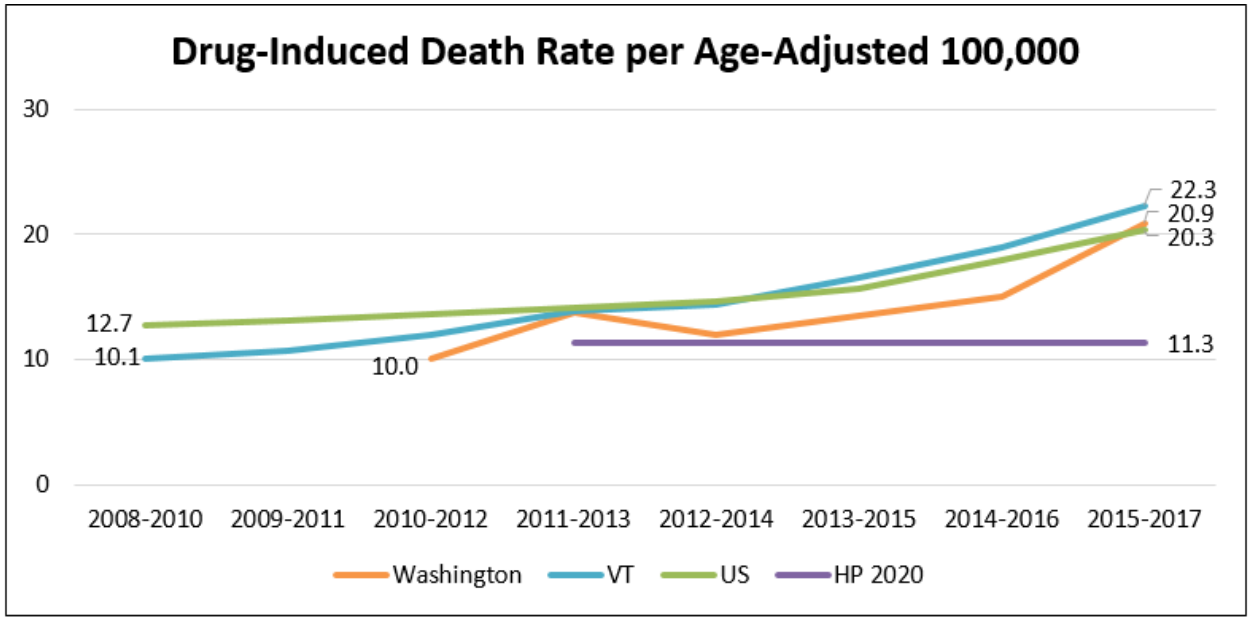
Alcohol Abuse Measures
(Red = Higher than State and National Benchmarks)

	Binge Drinking in Past Month (Adults)	Percent of Driving Deaths due to DUI
Washington County	20%	28.0%
Vermont	18%	35.3%
United States	17%*	29.0%
Healthy People 2020	NA	NA

Source: VT Department of Health, 2015-2016; CDC, 2016; National Highway Traffic Safety Administration, 2012-2016
*The percentage reflects 2016 data; state and county percentages reflect 2015-2016 data due to availability.

Drug-induced deaths include all deaths for which drugs are the underlying cause of death, including drug overdoses and deaths from medical conditions resulting from chronic drug use. The drug-induced death rate for Vermont is double the Healthy People 2020 goal. The Washington County drug-induced death rate is similar to the state rate and increased more than 10 points from 2010-2012 to 2015-2017.

The Washington County drug-induced death rate is nearly double the HP 2020 goal, consistent with the state



Source: CDC, 2008-2010 – 2015-2017
*Drug-induced death rate data for Washington County are not reported for 2008-2010 or 2009-2011 due to low death counts (n=14 and n=15 respectively).

While substance use disorder is a growing problem, and deaths due to drug-related causes are increasing, Vermont residents are accessing treatment for their condition(s). More than 1,100 people in Washington County sought treatment for substance use disorder in 2017 alone.

Number of People Treated for Substance Abuse

	Alcohol	Marijuana/ Hashish	Heroin/Other Opioid
Washington County	269	137	698
Vermont	3,244	1,133	6,605

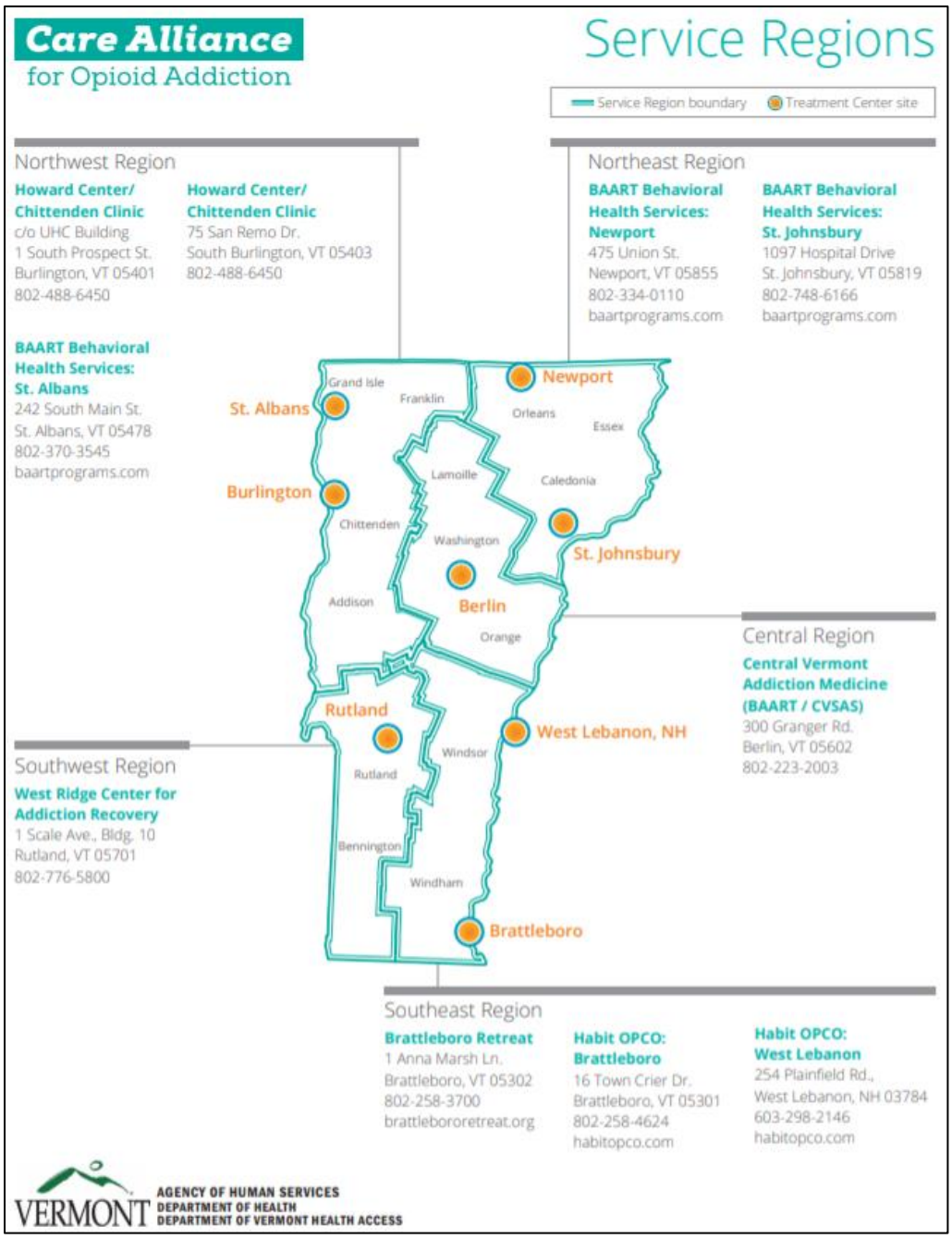
Source: VT Department of Health, 2017
*Data reflects only people receiving treatment at state-funded treatment facilities.

The Care Alliance for Opioid Addiction is Vermont's Hub-and-Spoke Model for providing Medication Assisted Treatment (MAT) like methadone, buprenorphine, or Vivitrol to individuals addicted to opioids. Individuals can access treatment either through a regional opioid treatment center (Hub) or a primary care setting (Spoke). Primary care settings are staffed by at least one buprenorphine-prescribing physician.

Individuals receiving care through the Hub-and Spoke Model also receive care coordination and community-based support services, including mental health and substance abuse treatment, pain management, life skills and family supports, job development, and recovery supports. Individual care teams are led by a physician with support from nurses and licensed counselors.

The Care Alliance for Opioid Addiction is VT's hub-and-spoke model for providing MAT to individuals addicted to opioids

Lamoille, Orange, and Washington Counties comprise the Central Hub Region. The following map shows the Hub Regions and treatment center sites.



The Hub and Spoke model in the Central Region, which includes Washington County, served nearly 500 clients at the end of 2018, and had zero clients waiting for MAT treatment. The majority of clients in the Central Region were treated with Methadone.

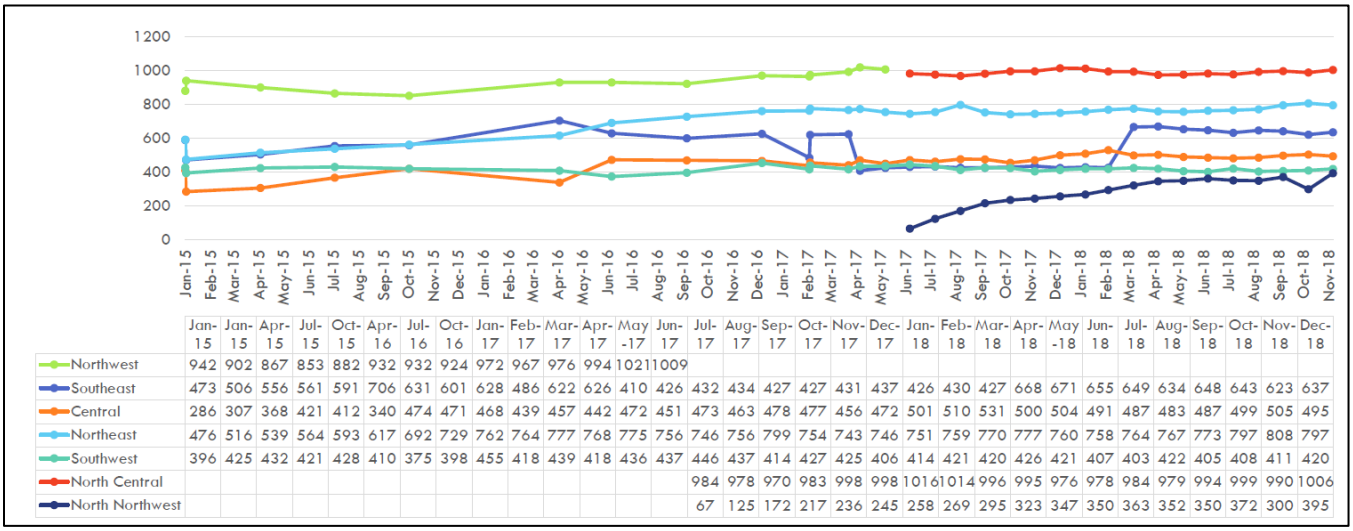
As of December 2018, 495 individuals in the Central Region received opioid use disorder treatment

Opioid Use Disorder Treatment – Hub Census and Waitlist

	Total Clients	Buprenorphine Clients	Methadone Clients	Vivitrol Clients	Clients Waiting
Central Region (Lamoille, Orange, Washington counties)	495	168	327	0	0

Source: VT Department of Health, December 2018

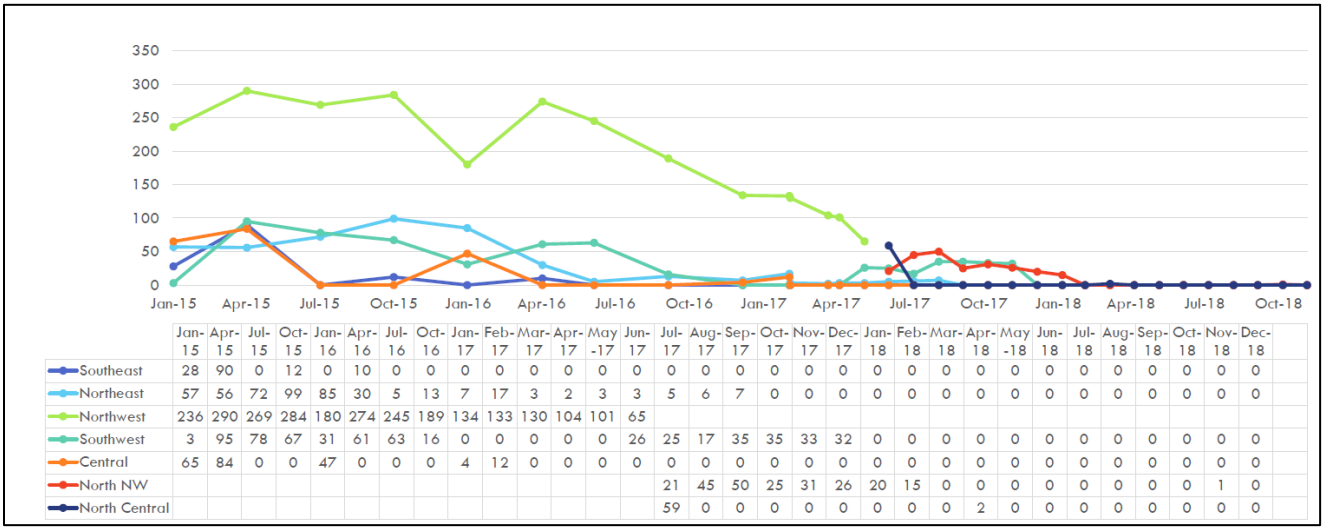
Number of People Receiving Hub Services by Region



	Jan-15	Jan-15	Apr-15	Jul-15	Oct-15	Apr-16	Jul-16	Oct-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Northwest	942	902	867	853	882	932	932	924	972	967	976	994	1021	1009																		
Southeast	473	506	556	561	591	706	631	601	628	486	622	626	410	426	432	434	427	427	431	437	426	430	427	668	671	655	649	634	648	643	623	637
Central	286	307	368	421	412	340	474	471	468	439	457	442	472	451	473	463	478	477	456	472	501	510	531	500	504	491	487	483	487	499	505	495
Northeast	476	516	539	564	593	617	692	729	762	764	777	768	775	756	746	756	799	754	743	746	751	759	770	777	760	758	764	767	773	797	808	797
Southwest	396	425	432	421	428	410	375	398	455	418	439	418	436	437	446	437	414	427	425	406	414	421	420	426	421	407	403	422	405	408	411	420
North Central															984	978	970	983	998	998	1016	1014	996	995	976	978	984	979	994	999	990	1006
North Northwest															67	125	172	217	236	245	258	269	295	323	347	350	363	352	350	372	300	395

Source: VT Department of Health, 2018

Number of People Waiting for Hub Services by Region

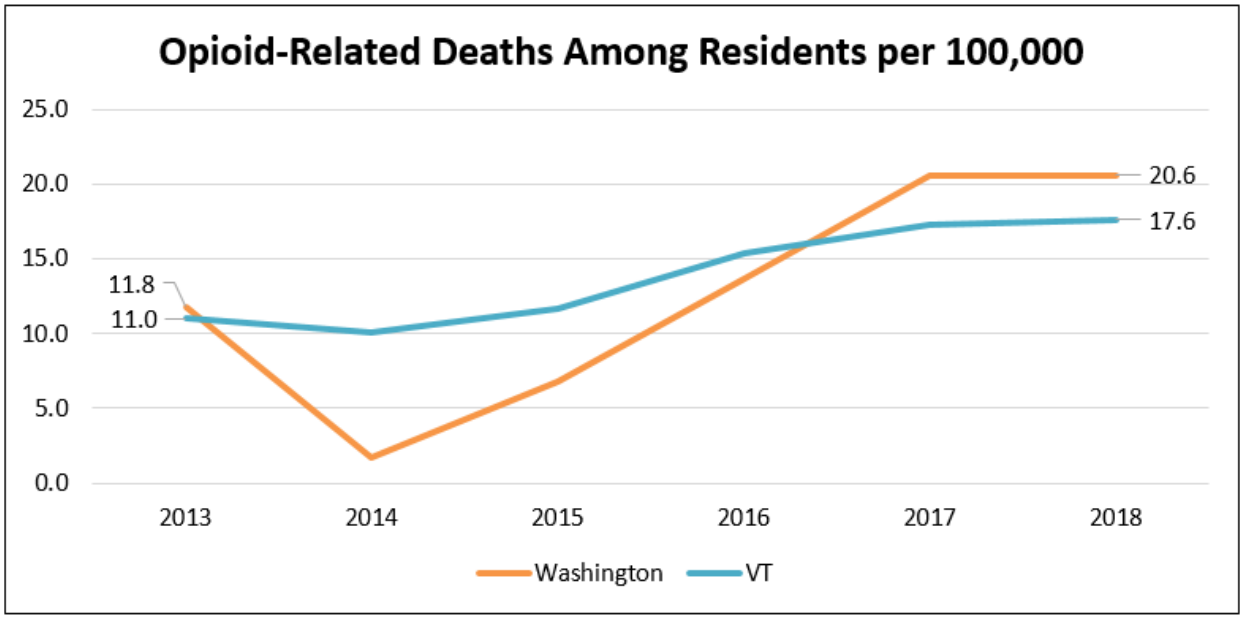


	Jan-15	Apr-15	Jul-15	Oct-15	Jan-16	Apr-16	Jul-16	Oct-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Southeast	28	90	0	12	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northeast	57	56	72	99	85	30	5	13	7	17	3	2	3	3	5	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northwest	236	290	269	284	180	274	245	189	134	133	130	104	101	65																		
Southwest	3	95	78	67	31	61	63	16	0	0	0	0	0	26	25	17	35	35	33	32	0	0	0	0	0	0	0	0	0	0	0	0
Central	65	84	0	0	47	0	0	0	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North NW															21	45	50	25	31	26	20	15	0	0	0	0	0	0	0	0	1	0
North Central															59	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0

Source: VT Department of Health, 2018

According to an annual data publication by the Vermont Department of Health, there were 110 opioid-related deaths among Vermont residents in 2018 (accidental or undetermined). Washington County residents accounted for 12 of the deaths. The rate of opioid-related deaths in the county increased from 1.7 per 100,000 in 2014 (n=1) to 20.6 per 100,000 in 2017 and 2018.

The rate of opioid-related deaths in Washington County increased sharply from 2014 to 2017 and is higher than the state



Source: VT Department of Health, 2013-2018

The tables below show the total number of opioid-related deaths by year and the percentage of deaths due to fentanyl. According to the Drug Enforcement Agency, “Fentanyl is a potent synthetic opioid drug approved by the Food and Drug Administration for use as an analgesic (pain relief) and anesthetic. It is approximately 100 times more potent than morphine and 50 times more potent than heroin as an analgesic.” Fentanyl is often mixed with or sold as heroin. An increasing proportion of opioid overdose deaths in Washington County are due to fentanyl.

Opioid-Related Death Counts by Year

	2013	2014	2015	2016	2017	2018
Washington County	7	1	4	8	12	12
Vermont	69	63	73	96	108	110

Source: VT Department of Health, 2013-2018

Opioid-Related Deaths due to Fentanyl by Year

	2013	2014	2015	2016	2017	2018
Washington County	43%	0%	50%	38%	58%	75%
Vermont	17%	27%	38%	51%	69%	75%

Source: VT Department of Health, 2013-2018

Youth Mental Health and Substance Use

Young people who consistently feel depressed or sad may be at risk for self-harm and risky behaviors, including committing suicide. Nearly 1 in 3 Washington County teens reported feeling sad or hopeless for at least two weeks. Washington County teens are more likely than their peers in Vermont or the US to have made a suicide plan.

15% of Washington County students have made a suicide plan, slightly higher than the state and nation

Youth Depression Measures (Grades 9-12)
(Red = Higher than State and National Benchmarks)

	Made a Suicide Plan	Felt Sad or Hopeless for at Least Two Weeks	Bullied in the Past 30 Days
Washington County	15%	28%	16%
Vermont	12%	25%	16%
United States	14%	32%	NA

Source: VT Department of Health, 2017; CDC, 2017

Teen alcohol use is both a symptom and a risk factor for increased injury, depression, and poor health. Washington County youth are more likely than youth from Vermont and throughout the US to drink or binge drink.

More than one-third of Washington County students reported recent alcohol use, higher than the state and nation

Youth Alcohol Abuse Measures (Grades 9-12)
(Red = Higher than State and National Benchmarks)

	Drank Any Alcohol in the Past 30 Days	Binge Drank in the Past 30 Days	Drove Under the Influence of Alcohol in the Past 30 Days
Washington County	35%	19%	7%
Vermont	33%	17%	7%
United States	30%	14%	6%

Source: VT Department of Health, 2017; CDC, 2017

Substance use among youth can lead to many negative health outcomes. Youth in Washington County are more likely to have used marijuana, driven under the influence of marijuana, and/or misused a prescription drug than teens throughout Vermont or the US.

Washington County students are more likely to use marijuana and misuse prescriptions drugs compared to the state and nation

Youth Substance Abuse Measures (Grades 9-12)
(Red = Higher than State and National Benchmarks)

	Used Marijuana in the Past 30 Days	Drove Under the Influence of Marijuana in the Past 30 Days	Misused a Prescription Drug in the Past 30 Days
Washington County	27%	17%	7%
Vermont	24%	14%	5%
United States	20%	13%	NA

Source: VT Department of Health, 2017; CDC, 2017

Maternal and Infant Health

The total birth rate in Washington County is slightly lower than Vermont overall, and generally reflects the underlying population. Birth counts in Vermont are stratified by race, but not by ethnicity. Therefore, birth counts reflect the three largest racial groups, each of which may or may not contain Hispanic or Latino residents.

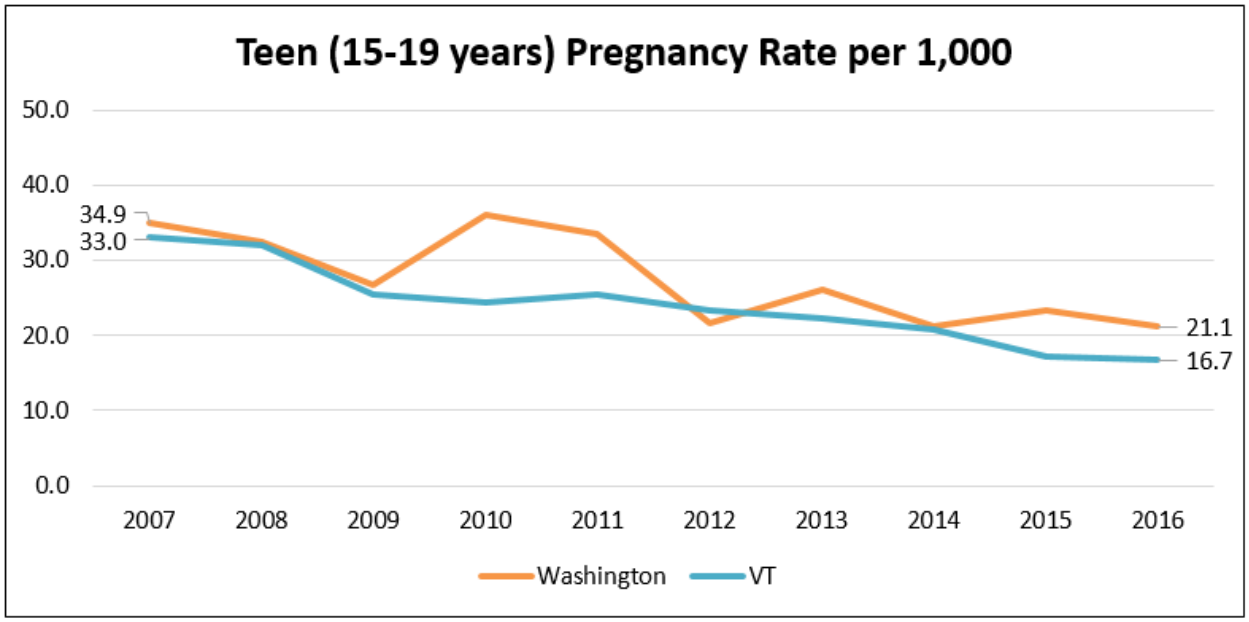
2016 Births by Race

	Total Births	Birth Rate per 1,000	White Births		Asian/Pacific Islander Births		Black/African American Births	
			Count	Percent of Total	Count	Percent of Total	Count	Percent of Total
Washington County	508	8.7	484	95.3%	9	1.8%	3	0.6%
Vermont	5,756	9.2	5,314	92.3%	150	2.6%	90	1.6%

Source: VT Department of Health, 2016

Teenage pregnancy and birth can have a lasting impact on both parents and children, including lower educational attainment and poorer health outcomes. The teen pregnancy rate in Washington County is falling, consistent with state and national trends. While the general birth rate in Washington County is lower than the state, the teen pregnancy rate in Washington County is higher.

The teenage pregnancy rate declined, but is higher than the state rate



Source: VT Department of Health, 2007-2016

Four leading maternal and child health indicators are presented in the table below for Washington County compared to state and national benchmarks. Trending of these indicators follows to further identify areas of strength and opportunity.

Washington County meets or nearly meets HP 2020 goals for prenatal care, low birth weight, and breastfeeding, but has a higher rate of mothers who smoke during pregnancy

In 2016, Washington County met or nearly met Healthy People 2020 goals for all listed indicators except smoking during pregnancy. Across Vermont, nearly 1 in 5 mothers report smoking during pregnancy, more than double the national percentage. The percentage of Washington County mothers who smoke during pregnancy is similar to the state percentage. The trend of mothers who smoke during pregnancy has been variable over the past decade, but generally in line with the state.

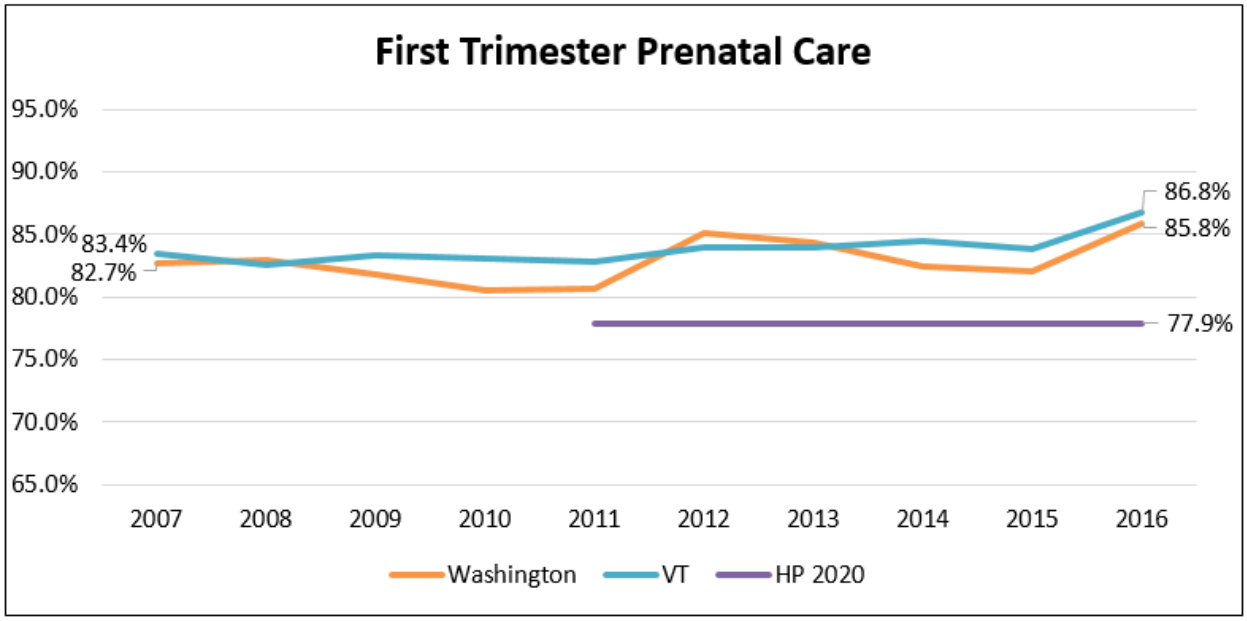
National data for prenatal care, smoking, and breastfeeding became available in 2016, the first year in which all states used the 2003 revision of the birth certificate. Trending data for these indicators is not reported for the nation prior to 2016.

Maternal and Child Health Indicators

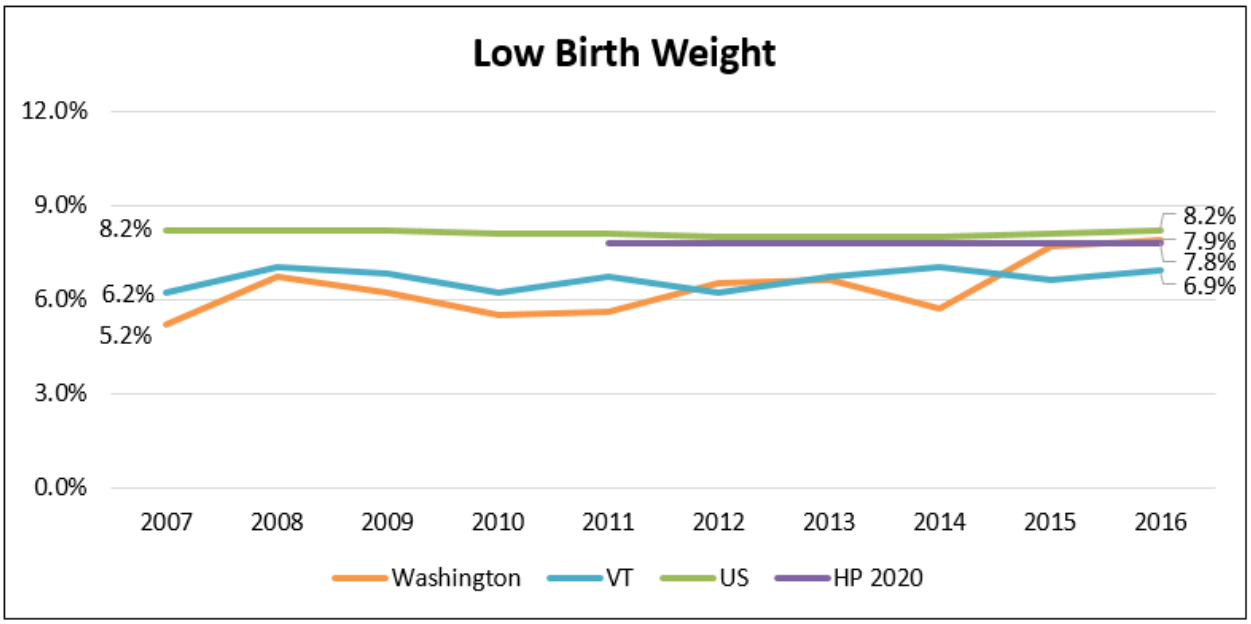
	Mothers with First Trimester Prenatal Care	Low Birth Weight Infants	Breastfeeding*	Smoking During Pregnancy
Washington County	85.8%	7.9%	92.9%	13.3%
Vermont	86.8%	6.9%	90.0%	15.5%
United States	77.1%	8.2%	83.1%	7.2%
Healthy People 2020	77.9%	7.8%	81.9%	1.4%

Source: VT Department of Health, 2016; CDC, 2016

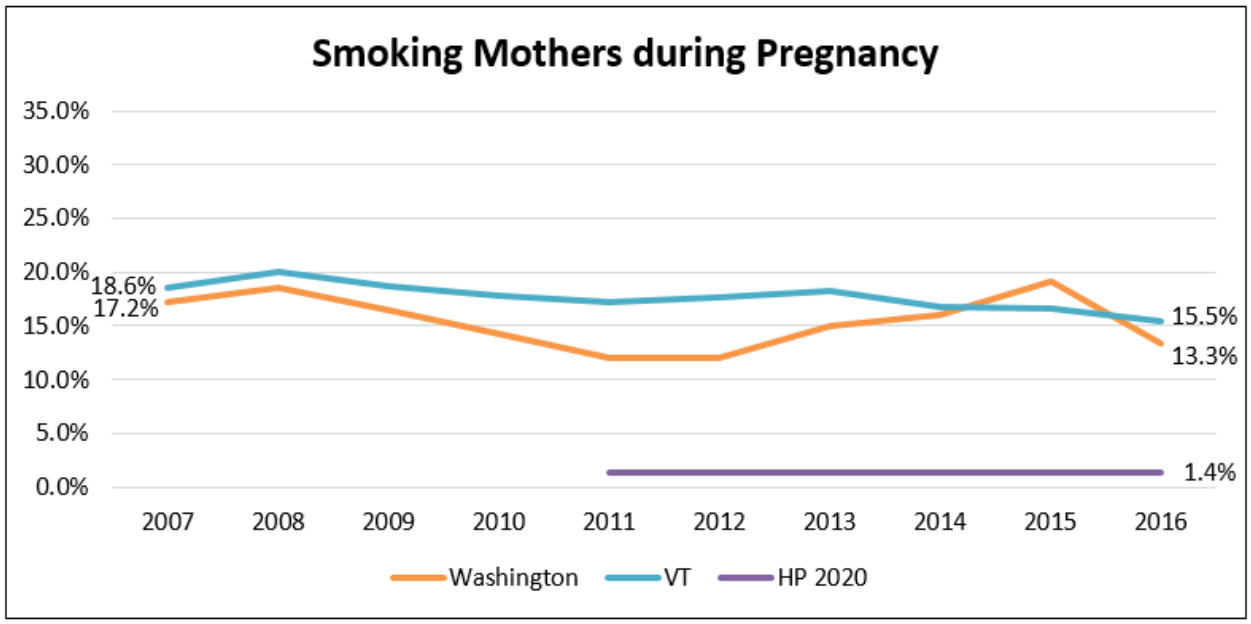
*Data reflect the percentage of infants being breastfed at discharge from the hospital. The Healthy People 2020 goal reflects the percentage of infants who are ever breastfed.



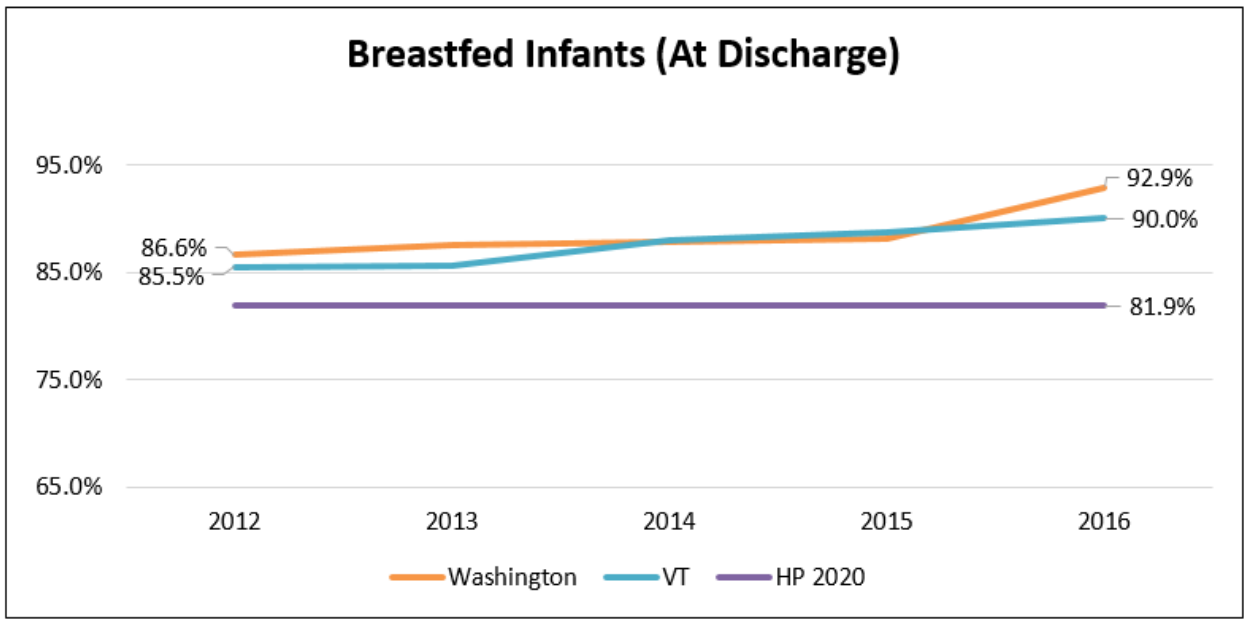
Source: VT Department of Health, 2007-2016



Source: VT Department of Health, 2007-2016; CDC, 2007-2016



Source: VT Department of Health, 2007-2016



Source: VT Department of Health, 2012-2016

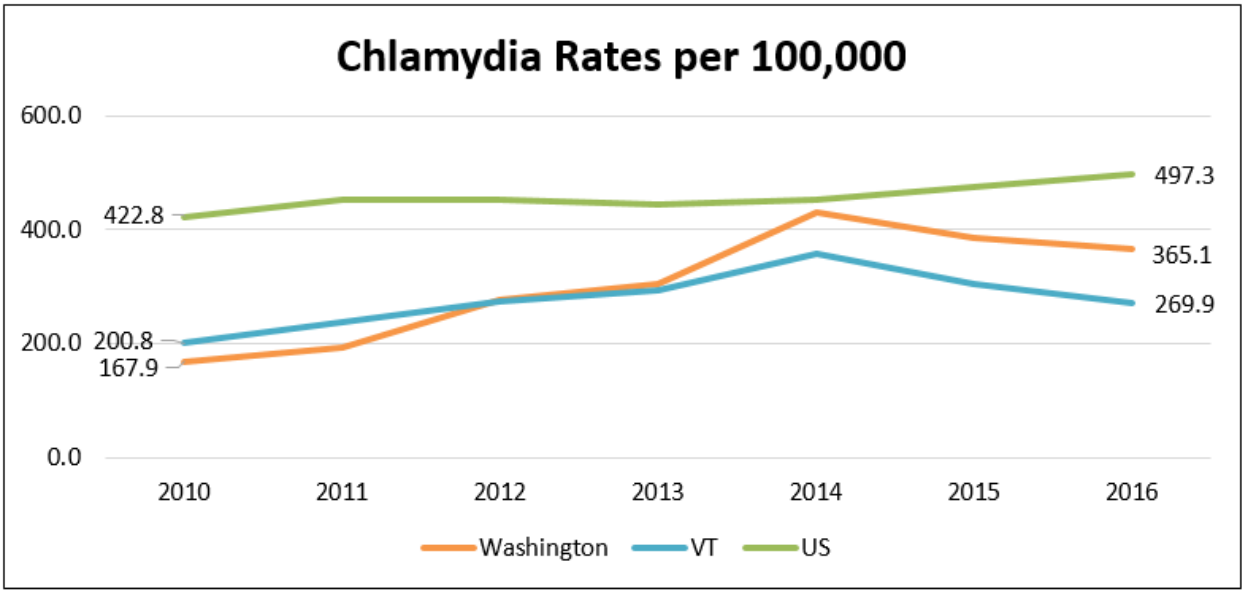
Reportable Diseases

Sexually Transmitted Infections

Sexually transmitted infections (STIs) that require reporting to the CDC and state and local health bureaus upon detection include chlamydia, gonorrhea, and HIV.

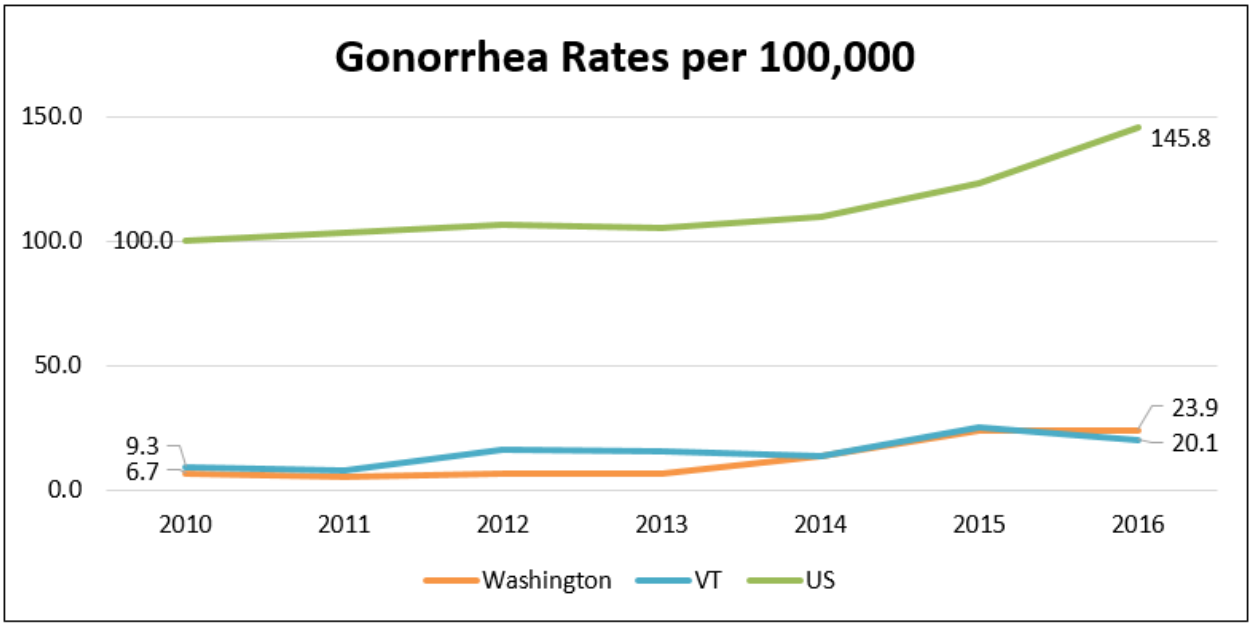
Chlamydia and gonorrhea infection rates in Washington County are higher than the state overall

Chlamydia is both preventable and treatable, but if left untreated can lead to serious complications. The rate of chlamydia infection is lower in Washington County than the US in general, but higher than Vermont. The infection rate in Washington County increased sharply from 2010 to 2014, but has trended downward since 2014.



Source: CDC, 2010-2016

Gonorrhea is also preventable and treatable. The rate of gonorrhea infection is significantly lower in Washington County and Vermont than in the US in general. Continued attention to preventing new cases of gonorrhea infection will aid in avoiding the increasing trend seen elsewhere across the country.



Source: CDC, 2010-2016

HIV prevalence is the number of people living with HIV infection at a given time. According to the CDC, “At the end of 2015, an estimated 1.1 million persons aged 13 and older were living with HIV infection in the US, including an estimated 162,500 (15%) persons whose infections had not been diagnosed.” While there is no cure for HIV yet, it is preventable and treatable as a chronic disease if diagnosed.

HIV prevalence in Washington County is less than one-quarter the national prevalence

The following table shows HIV prevalence as of 2015 for Washington County compared to the state and nation. The prevalence of HIV is less than one-quarter of the national rate. There are currently 671 people living with HIV in Vermont. Of those 671 people, 35 live in Washington County, giving Washington County an even lower prevalence than Vermont. While the rate of HIV infection is relatively low, it still presents an opportunity for continued intervention to ensure people living with HIV are accessing consistent and proper care for the maintenance of their disease, and that efforts are continued towards prevention, education, and testing.

2015 HIV Prevalence

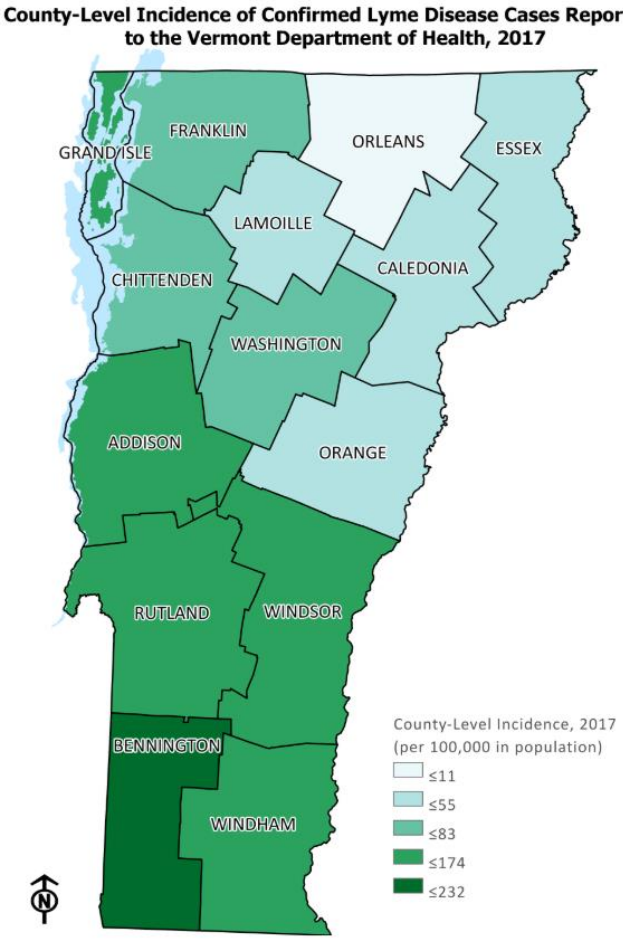
	HIV Prevalence per 100,000	HIV Cases
Washington County	69.0	35
Vermont	123.7	671
United States	362.3	971,524

Source: CDC, 2015

Lyme Disease

Lyme disease, according to the CDC, “is transmitted to humans through the bite of infected blacklegged ticks. Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans. If left untreated, infection can spread to joints, the heart, and the nervous system.” The northeast US, from Virginia to Maine, is one of the primary geographic areas for infection.

In 2017, 1,092 cases of Lyme disease were recorded in Vermont. Lyme disease incidence was higher among southern Vermont counties. Washington County had an overall lyme disease incidence rate of ≤83 per 100,000, indicating a moderate burden of disease.



Source: VT Department of Health, 2017

Child Lead Screening and Lead Poisoning

The CDC estimates that at least four million households have children living in them that are being exposed to high levels of lead. Lead exposure increases the risk for central nervous system damage, slowed growth and development, and hearing and speech problems.

Lead paint was frequently used to paint the inside and outside of houses until 1978 when it was banned in the US due to its association with lead poisoning. As a result, homes built before 1978 are at risk of having lead paint inside, a leading exposure pathway for children.

Approximately 67% of housing stock in Washington County was built before 1980, increasing the potential for lead paint exposure

Washington County has a larger proportion of older homes than the state and nation, a risk factor for lead exposure for children which should be monitored.

All Housing Units by Age
(Red = Higher than State and National Benchmarks)

	Before 1960	1960-1979	1980-1999	After 2000
Washington County	38.8%	28.5%	20.4%	12.3%
Vermont	35.0%	24.4%	27.1%	13.3%
United States	28.5%	26.3%	27.6%	17.7%

Source: US Census Bureau, 2013-2017

The measure indicating high levels of lead exposure or lead poisoning was recently revised from 10 micrograms per decileter of blood (µg/dL) or higher to 5 µg/dL of blood or higher. The Vermont Department of Health reports blood lead levels based on the original measure. The following table depicts children ages 1 to 5 who have elevated blood lead poisoning.

Lead Screening and Poisoning among Children 1 to 5 Years of Age

	Percent with Blood Lead Levels ≥10 µg/dL
Washington County	0.5%
Vermont	0.5%

Source: VT Department of Health, 2013-2015

Secondary data findings were analyzed as part of the 2019 CHNA to inform health priorities for Washington County. Secondary data is valuable for tracking and benchmarking community health status indicators, as well as for identifying emerging community needs.

Community Survey Findings

Background

A Community Survey was conducted in conjunction with the 2019 CVMC CHNA. The objective of the survey was to gather data on health status, risk behaviors, barriers to accessing services, and health and social needs of community members, and solicit feedback about community health improvement. The survey was conducted in February and March 2019 with a diverse group of area residents aged 18 or over. A total of 1,429 residents completed the survey.

The survey was made widely available to the community in partnership with community health and social service providers. The survey was available as an electronic link and shared via print ads, websites, email, and social media. The survey was not intended to be a representative sample of the greater community, but rather provide general insights into respondents' perceptions and health status.

Summary of Findings

Common strengths shared or perceived among survey respondents are outlined below:

- Less than 2% of respondents did not have medical insurance.
- "People care about their community" was identified as the #1 community strength, followed by safe neighborhoods and good schools.
- While substance abuse and access to mental health services were identified as the top community health challenges by respondents, few respondents and/or family members had experienced these issues.
- Approximately 19% of respondents indicated that they and/or a family member did not experience any of the specified health challenges. Similarly, 32% of respondents indicated that they and/or their family members did not experience any of the specified social or environmental challenges.
- Approximately 70% or more of respondents stated that they were satisfied with their life, felt their life was worthwhile, and that they understood their purpose in life.

Areas of opportunities were indicated and are outlined below for improvement:

- More than one-quarter (27%) of respondents did not have dental insurance.
- Substance abuse was identified as the top community health challenge, followed by access to mental health services and overweight/obesity.
- Chronic disease was identified as the top health challenge experienced by respondents and/or their family members, followed by aging problems and overweight/obesity.

- Affordable housing was selected as the top community social and environmental challenge by nearly half of respondents, followed by transportation and lack of a livable wage. Transportation was the most commonly experienced challenge by respondents and/or their family members.
- Among respondents who indicated that they and/or a family member have had experience with cancer, one-quarter indicated the need for timely access to specialty care. One-fifth indicated the need for community services to assist with the costs and stress associated with cancer care.
- Less than 60% of respondents indicated that their relationships are "as satisfying as I would want them to be."
- About 25% of respondents worried at least some of the time about being able to meet their monthly living expenses.
- Affordable services for children, families, and seniors was indicated as a high need in the community, including "affordable health care," "affordable housing for families," "affordable housing for older people," and "access to affordable healthy foods."
- Mental health diagnosis and treatment services were identified as needed in the community, as well as substance use disorder prevention and treatment services.

Demographics

Approximately 89% of respondents resided in Washington County. Nearly 98% of respondents were a permanent resident of Vermont and 97% were born in the United States. The most commonly reported other countries of birth included Germany (n=7), Canada (n=5), and United Kingdom (n=3).

The largest percentages of respondents were female (79%) and White (98%). The most represented age groups were 55-64 (24.4%) and 65-74 (23.6%). Approximately 27% of respondents reported a household income of less than $50,000; 30% reported an income of $100,000 or more. About 68% had attained a bachelor's or graduate-level degree; fewer than 1% did not complete high school. About 70% of respondents were employed full- or part-time, while one-quarter of respondents were not working due to being retired. Less than 1% of respondents were unemployed. Demographic data for all survey respondents is shown in the following tables.

County of Residence

County	Percent	Count
Washington County	88.9%	1,270
Orange County	8.7%	124
Other*	2.4%	35

*Most common responses: Caledonia, Chittenden, Lamoille, Windsor, individuals working in or serving residents of Washington County

Top Respondent Towns of Residence

Town	Percent	Count
Montpelier	16.8%	240
Barre City	11.5%	165
Barre Town	10.6%	151
Other*	6.4%	92
Northfield	6.4%	91
Waitsfield	4.8%	68
Williamstown (Orange County)	4.4%	63
Waterbury	4.3%	61
Middlesex	4.3%	61
Berlin	4.1%	59

*Most common responses: Graniteville, Randolph, Topsham, Warren

Respondent Demographics

	Percent	Count
Gender		
Female	78.8%	942
Male	19.8%	237
Non-Binary	0.3%	3
Other	1.2%	14
Race/Ethnicity		
White	97.6%	1,097
Other	1.3%	15
More than 1 race	1.0%	11
Hispanic, Latino or Spanish origin	0.9%	10
American Indian or Eskimo	0.8%	9
Black or African American	0.5%	6
Asian or Pacific Islander	0.4%	5
Age		
18-24	0.3%	3
25-34	7.9%	88
35-44	16.4%	182
45-54	19.7%	219
55-64	24.4%	271
65-74	23.6%	262
75-84	7.3%	81
85+	0.4%	4

Respondent Demographics cont'd

	Percent	Count
Household Income		
Less than $10,000	1.1%	11
$10,000-$24,999	7.5%	75
$25,000-$49,999	18.0%	181
$50,000-$99,999	43.7%	439
$100,000-$149,999	21.0%	211
$150,000 or more	8.7%	87
Education		
Graduate degree	34.8%	415
Bachelor's degree	32.9%	393
Some college	11.6%	138
Associates degree	8.7%	104
High school diploma or GED	8.1%	97
Other*	2.9%	35
Currently attending college	0.6%	7
Some high school (did not finish)	0.3%	4
Employment		
Employed full-time	57.9%	669
Retired	26.0%	301
Employed part-time	12.3%	142
Homemaker	2.3%	26
Unemployed	1.0%	12
Full-time student	0.5%	6

*Most common responses: cosmetology, law degree, medical degree, multiple degrees, technical school, graduate credits completed

Approximately 30% of respondents had children under the age of 21 living in their household, and 21% of respondents had elders that were dependent on them for care and/or support.

Dependents Living in the Household

	Percent	Count
Children Under Age 21		
Yes	29.7%	353
No	70.3%	837
Elders Dependent on Care		
Yes	20.6%	245
No	79.4%	944

Less than 2% of respondents or 17 individuals did not have medical insurance. However, more than one-quarter of respondents (27%) did not have dental insurance.

Health Insurance Coverage

	Percent	Count
Medical Insurance		
Yes	98.6%	1,177
No	1.4%	17
Dental Insurance		
Yes	72.8%	871
No	27.2%	326

Community Strengths and Challenges

Survey respondents were asked to provide input on community strengths and challenges by choosing up to five responses among provided lists. An option for "other" was also provided. A follow-up question asked respondents to select any health challenges that they or a family member have experienced in the past year. The top ten responses for each question are depicted in the tables below. The tables are rank ordered by the percentage of respondents that selected each item.

Community Strengths

Nearly 53% of respondents indicated that "people care about their community." Other top community strengths identified by respondents were safe neighborhoods (44%) and good schools (43%).

Top 10 Community Strengths

Ranking	Community Strength	Percent	Count
1	People care about their community	52.8%	755
2	Safe neighborhoods	43.9%	627
3	Good schools	43.3%	618
4	Clean environment	38.6%	551
5	Recreation resources, like parks and playgrounds	38.0%	543
6	People feel connected to each other in their community	31.4%	448
7	Access to health care services	30.9%	442
8	Available healthy food choices	30.0%	428
9	Walkable, bike friendly communities	23.5%	336
10	Resources for older people	17.8%	254

Community Challenges

Respondents were asked to select up to five choices among a list of community challenges. Results are listed below in rank order based on the percentage of respondents who chose that issue. Substance abuse was chosen by 65% of respondents as a community challenge, followed by access to mental health services (42%) and overweight/obesity (39%).

Top 10 Community Health Challenges

Ranking	Health Challenge	Percent	Count
1	Substance abuse (drugs, alcohol)	64.8%	873
2	Access to mental health services	42.2%	568
3	Overweight/obesity	38.8%	522
4	Chronic disease (diabetes, heart disease, high blood pressure, high cholesterol, stroke)	34.4%	463
5	Issues related to aging (arthritis, hearing/vision loss)	33.1%	446
6	Access to health care services	29.6%	398
7	Physical activity	22.7%	306
8	Tobacco use	22.4%	302
9	Access to dental care	20.9%	282
10	Cancer	20.3%	274

Residents were asked which health issues them and/or a family members had personally experienced within the past year. Chronic disease (37%), aging problems (34%), and overweight/obesity (30%) were indicated by about one-third of respondents. Physical activity was selected as a health challenge by one-quarter of respondents. Approximately 1 in 5 respondents indicated that they did not experience any of the specified health challenges.

Top 10 Health Challenges Experienced by Survey Respondents within the Past Year

Ranking	Health Challenge	Percent	Count
1	Chronic disease (diabetes, heart disease, high blood pressure, high cholesterol, stroke, depression)	36.6%	493
2	Issues related to aging (arthritis, hearing/vision loss)	33.9%	456
3	Overweight/obesity	30.3%	408
4	Physical activity	24.9%	335
5	None of the above	19.0%	256
6	Access to health care services	16.0%	216
7	Access to mental services	13.1%	177
7	Access to dental care	13.1%	176
9	Cancer	12.0%	161
10	Falls	11.8%	159

Although substance abuse (65%) and access to mental health services (42%) were most chosen as community health challenges, only 10% of respondents had personally experienced substance abuse issues, and about 16% of respondents had themselves accessed mental services. Access to health care services and access to dental care were also chosen as a community health challenge by more respondents than who experienced challenges in accessing these services. Perceived community health challenges and personally experienced health challenges were more closely aligned for overweight/obesity, chronic disease, aging problems, and physical activity.

Social and Environmental Challenges

Survey respondents were asked to identify up to five social and environmental challenges in their community, and indicate if they or a family member had experienced any of them. The top ten chosen responses for each question are depicted in the tables below.

Nearly half (47%) of respondents selected affordable housing as a community social and environmental challenge, followed by transportation by 35% of respondents, and lack of livable wage by 34%. Other issues were more closely ranked, as chosen by about 20% of respondents.

Top 10 Community Social and Environmental Challenges

Ranking	Social/Environmental Challenge	Percent	Count
1	Affordable housing	46.5%	72
2	Transportation	34.8%	54
3	Lack of a livable wage	34.2%	53
4	Lack of employment opportunities	25.8%	40
5	Climate change	22.6%	35
6	Lack of support for older people	20.0%	31
7	Crime/vandalism	18.7%	29
7	Homelessness	18.7%	29
7	Lack of support for youth	18.7%	29
10	Street safety (crosswalks, shoulders, bike lanes, traffic)	18.1%	28

Similar to perceptions of community health challenges, fewer respondents were personally impacted by the issues most chosen as social and environmental challenges. Affordable housing was selected by 47% of respondents as a community challenge, and experienced by 19% of respondents. Lack of livable wage was chosen by 34% as a community challenge and experienced by 14% of respondents. Perceived and experienced challenges were more closely aligned for transportation with 35% of respondents selecting it as a top community challenge and 20% selecting it as personal challenge. About 32% of respondents indicated that they were not impacted by any of the listed social and environmental challenges.

Top 10 Social and Environmental Challenges Experienced by Survey Respondents

Ranking	Social/Environmental Challenge	Percent	Count
1	None of the above	32.3%	50
2	Transportation	20.0%	31
3	Affordable housing	19.4%	30
4	Lack of employment opportunities	18.7%	29
5	Street safety (crosswalks, shoulders, bike lanes, traffic)	17.4%	27
6	Climate change	14.8%	23
7	Lack of a livable wage	13.6%	21
8	Access to opportunities for health for those with physical limitations	12.9%	20
9	Opportunities for physical activity, safe recreational areas	11.0%	17
10	Lack of support for older people	10.3%	16

Cancer Services

Approximately 12% of survey respondents indicated that they and/or a family member received cancer care within the past year. These respondents were then asked to provide input on cancer services that are missing or lacking in the community. The top ten responses are depicted in the table below.

About one-third of respondents indicated that no additional cancer services were needed. In contrast, one-fifth to one-quarter of survey respondents indicated that access to timely specialist care, assistance with copays and bills, and stress and anxiety resources were needed.

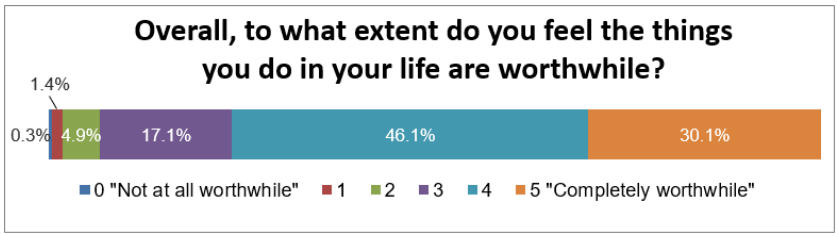
Top 10 Cancer Services Missing or Lacking in the Community

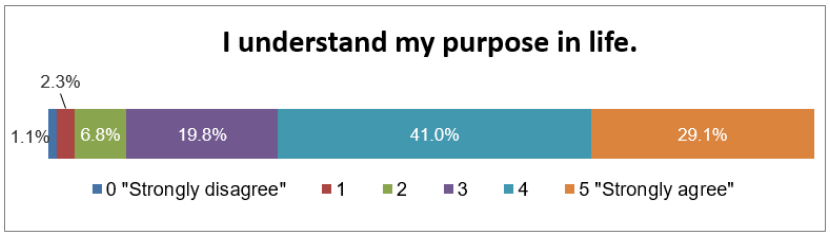
Ranking	Cancer Service	Percent	Count
1	None of the above	32.3%	53
2	Access to timely specialist care	23.8%	39
3	Access to financial assistance programs for co-pays and bills	20.7%	34
3	Stress and anxiety resources and treatment	20.7%	34
5	Assistance with understanding health insurance benefits and coverage	18.9%	31
5	Access to alternative health care providers (acupuncture, chiropractors, etc.)	18.9%	31
7	Affordable travel options	18.3%	30
8	Access to affordable prescription/medication coverage	17.7%	29
8	Affordable in-home services	17.7%	29
10	Caregiver support (respite)	16.5%	27

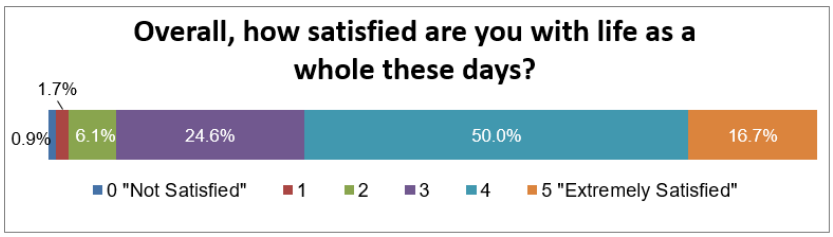
Happiness Index

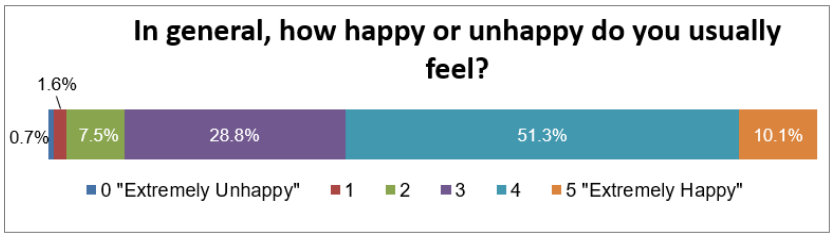
Survey respondents were asked to rate their health and well-being based on the following Happiness Index factors. Items were rated using a scale of (0) “worst rating” to (5) “best rating.”

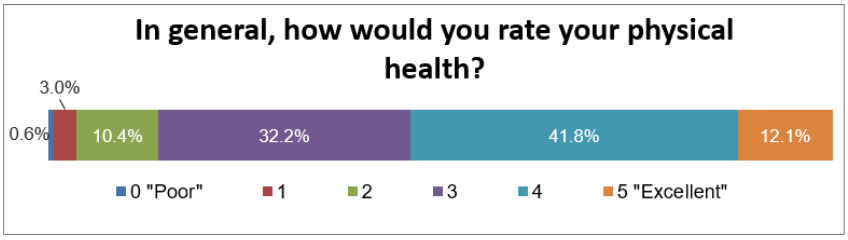
More than three-quarters of respondents felt that “the things they do in life are worthwhile,” and 70% understood their purpose in life. Approximately two-thirds of respondents were satisfied with their life, felt generally happy, and/or had good mental health. More than three-quarters of respondents felt that they “act to promote good” in the community. A lower percentage of respondents (54%) positively rated their physical health. The physical health of respondents may be impacted by the proportion of older adults and seniors represented in the survey.

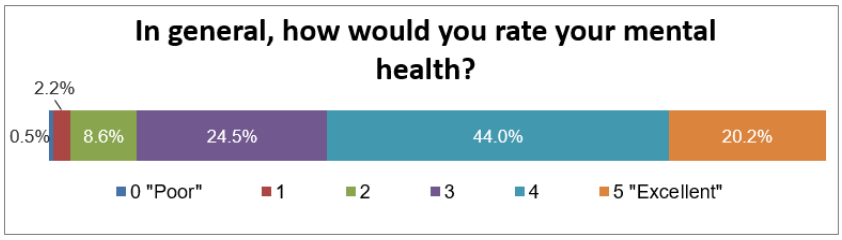


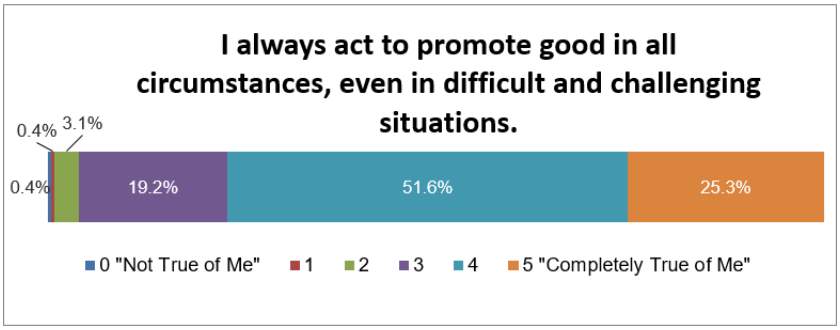


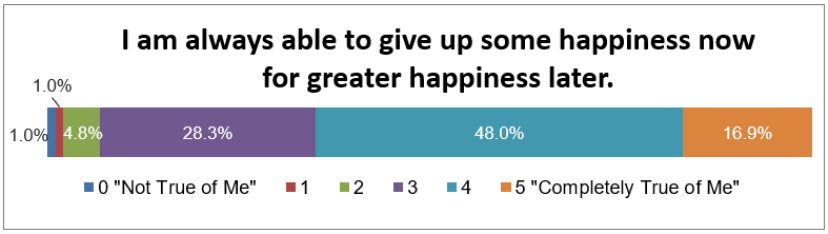




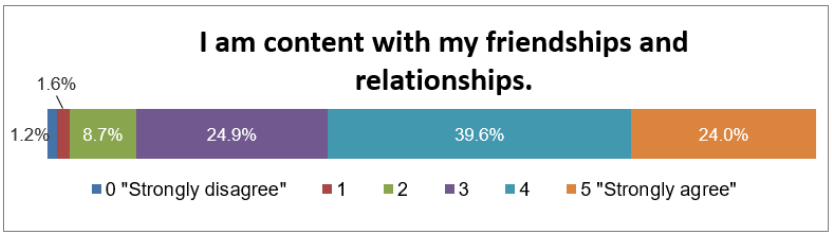


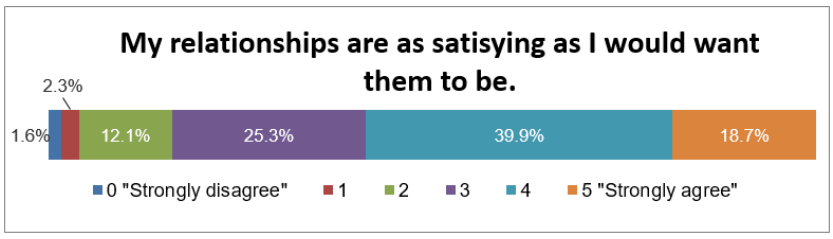




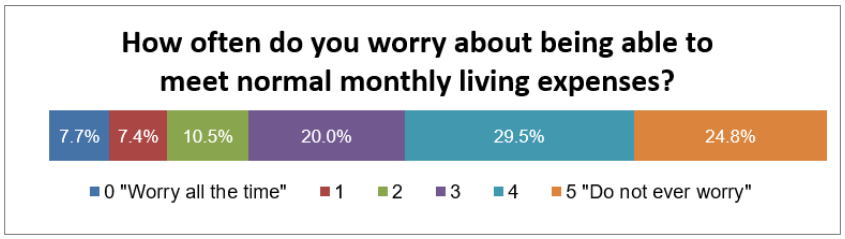


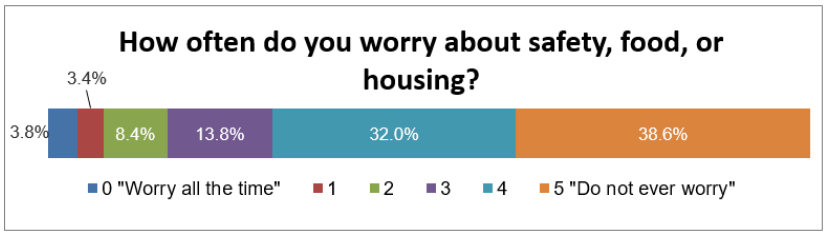
Relationships with friends and family members are a strong determinant of overall happiness and wellbeing. Approximately 64% of respondents were content with their friendships and relationships. A lower percentage of respondents (59%) indicated that their relationships are “as satisfying as I would want them to be.”





Approximately 25% of respondents worried at least some of the time about being able to meet their monthly living expenses, rating this factor as a “2” or lower. However, fewer (16%) respondents were worried about basic needs like safety, food, or housing.





Community Needs

Respondents were provided the option to answer additional questions related to community health and social needs, or conclude the survey. About 80% of respondents, or 1,004 individuals, chose to respond to community need questions. Their responses are outlined in the tables below for the categories of health care, mental health & well-being, substance use disorder, children and families, seniors, and hunger and nutrition. Respondents rated the services within each category using a scale of (0) “no need,” (1) “some need,” or (2) “high need.” The tables are rank ordered by the percentages of respondents selecting “high need.”

Across all categories, except mental health and substance use disorder, survey respondents identified the top needs as affordable services, including “affordable health care,” “affordable housing for families,” “affordable housing for older people,” and “access to affordable healthy foods.” The need for affordable housing was consistent with the top perceived community social and environmental challenge. Within the categories excluding mental health and substance use disorder, other services identified as having “high need” by at least 60% of respondents included:

- Affordable dental care for adults
- Access to primary health care providers
- Access to timely specialist care
- More childcare resources
- Afterschool/Summer programming
- Transportation to services – health care, groceries, errands, etc. (seniors)
- Senior caregiver support (respite care)
- Access to in-home health care (seniors)

- Adequate nutrition for older people
- Ways to connect with others (seniors)

Within the category of mental health, the top needs identified by survey respondents addressed access to diagnosis and treatment services. Child treatment services were ranked as the #1 need, while adult treatment services were ranked as the #5 need. The need for more mental health professionals in general was ranked as the #4 need. “Early detection of mental health issues” was ranked as the #3 need. Respondents acknowledged the impact of stigma on residents’ likelihood to seek mental health services; “Reduced stigma related to mental health conditions” was ranked as the #2 need.

Within the category of substance use disorder, the top needs identified by survey respondents addressed prevention and treatment services. “Reduction of opiate/narcotic use” and “substance use disorder prevention programs” were ranked as the #1 and #4 needs respectively. “Access to substance use disorder services” was ranked as the #2 need; respondents specifically called out the need for long term programs (#3 need).

Community Health Care Needs

Ranking	Need	High Need	Some Need	No Need
1	Affordable health care	79.1%	19.1%	1.9%
2	Affordable dental care for adults	66.6%	29.6%	3.8%
3	Access to primary health care providers	62.6%	31.1%	6.3%
4	Access to timely specialist care	63.0%	33.8%	3.2%
5	Affordable dental care for children	59.7%	32.5%	7.8%
6	Transportation to health care services	58.7%	36.7%	4.6%
7	End of life care	53.0%	40.6%	6.4%
8	Access to cancer screenings and resources	40.2%	47.9%	11.9%
9	Access to alternative health care providers (acupuncture, chiropractors, etc.)	34.5%	48.3%	17.2%

Community Mental Health & Well-Being Needs

Ranking	Need	High Need	Some Need	No Need
1	Access to mental health services (children/youth)	71.0%	25.1%	3.9%
2	Reduced stigma related to mental health conditions	65.4%	28.4%	6.1%
3	Early detection of mental health issues	65.3%	30.9%	3.8%
4	More mental health professionals	64.5%	29.8%	5.8%
5	Access to mental health services (adults)	60.8%	35.3%	4.0%
6	Access to residential mental health services	59.3%	35.3%	5.4%
7	Stress and anxiety resources and treatment	58.9%	37.6%	3.5%
8	Education/Awareness of mental health issues	54.8%	40.4%	4.8%
9	Access to wellness opportunities	46.4%	46.8%	6.8%
10	Opportunities for social connections	46.3%	47.5%	6.3%

Community Substance Use Disorder Needs

Ranking	Need	High Need	Some Need	No Need
1	Reduction of opiate/narcotic use	83.6%	14.1%	2.3%
2	Access to substance use disorder services	76.9%	20.4%	2.8%
3	Access to long term programs	76.1%	20.7%	3.2%
4	Substance use disorder prevention programs	75.6%	21.5%	2.8%
5	Access to residential substance use disorder treatment	71.0%	25.7%	3.3%
6	Transportation to treatment services	70.5%	26.2%	3.3%
7	Reduction of tobacco use, including e-cigarettes	63.3%	31.3%	5.3%
8	Strict controls on opiate/narcotic prescriptions	62.8%	32.0%	5.1%
9	Reduction of alcohol misuse	58.5%	37.8%	3.7%
10	Reduction of marijuana use	38.1%	31.2%	30.7%

Community Children and Family Needs

Ranking	Need	High Need	Some Need	No Need
1	Affordable housing for families	77.4%	20.2%	2.4%
2	More childcare resources	73.6%	23.2%	3.2%
3	Afterschool/Summer programming	61.5%	33.2%	5.3%
4	Child abuse prevention support	58.1%	39.1%	2.8%
5	Transportation to services (work, health care, school/childcare, grocery, shopping)	57.4%	39.1%	3.5%
6	Adequate nutrition for children	57.1%	39.1%	3.8%
7	Domestic abuse services	54.5%	41.9%	3.6%
8	Learning support services for children and youth	53.0%	42.5%	4.6%
9	Parenting education	48.7%	47.3%	4.0%
10	Ways to connect with other families	39.2%	53.7%	7.1%
11	Home visits for newborns	38.3%	51.9%	9.8%

Community Senior Needs

Ranking	Need	High Need	Some Need	No Need
1	Affordable housing for older people	74.4%	24.0%	1.6%
2	Transportation to services (health care, grocery, shopping)	71.5%	27.6%	0.9%
3	Caregiver support (respite care)	64.7%	33.6%	1.7%
4	Access to in-home health care	62.8%	34.7%	2.4%
5	Adequate nutrition for older people	62.3%	35.3%	2.4%
6	Ways to connect with others	61.9%	34.9%	3.2%
7	Dental care for older people	59.8%	37.6%	2.6%
8	Access to nursing home care	59.2%	37.5%	3.3%
9	Elder day care	54.7%	42.9%	2.4%

Community Hunger and Nutrition Needs

Ranking	Need	High Need	Some Need	No Need
1	Access to affordable healthy foods	68.7%	28.8%	2.6%
2	Overweight and obesity prevention programs for children and youth	61.1%	35.4%	3.5%
3	Healthy breakfast/lunch options in schools	54.4%	35.0%	10.6%
4	Overweight and obesity prevention programs for adults	53.4%	42.8%	3.8%
5	Access to recreation/exercise opportunities	42.5%	49.3%	8.2%
6	Nutrition education/healthy meal preparation	41.7%	53.1%	5.2%
7	Access to community meals	37.3%	54.1%	8.6%

Survey respondents were asked to provide open-ended feedback about additional missing resources or needed services within the community. Respondents indicated the following:

- Accessible and affordable health care (e.g. health clinic, dental care, specialists, primary care, alternative care options)
- Accessible and affordable recreation for all ages (e.g. gyms, indoor swimming pools, winter activities)
- Accessible healthy foods across all communities (e.g. free/healthy school lunches, food banks, community gardens)
- Affordable, accessible, and safe housing
- Affordable childcare services, including after school and late night options
- Cellphone service, reliable internet coverage
- Clearinghouse of available community health and social services
- Community activities to encourage socialization (e.g. outdoor programs, group activities, adult learning centers, senior mentorship, YMCA, youth gathering spaces)
- Economic opportunities; livable wages
- Encouragement of a community fostering safety for biking, walking; street safety
- Health and social services for individuals with disabilities
- Mental health and substance abuse services, including local treatment options
- Public transportation options
- Senior care services (e.g. Alzheimer's disease, in-home care, home maintenance)

Open-Ended Feedback by Survey Respondents

To conclude the survey, respondents were asked to provide open-ended feedback regarding comments or ideas they wanted to share. The following are select comments by respondents. In general, respondents expressed the need for more affordable housing and food options, accessible care, senior services, recreation opportunities, and transportation.

- *"Affordability for everything in the future & near future is very worrisome. I have subsidized housing. I can't imagine these rents these days. I would be homeless I'm sure."*
- *"Affordable mental health services and education are where there is a vast gulf in health care. There aren't many affordable options for people who really -need- health care, and there is still an unreasonable amount of stigma associated with needing assistance."*
- *"As a community we need to make an ongoing and concerted effort to bridge understanding across groups. There seems to be increasing misunderstandings, stereotyping, and dehumanization of people who people think appear to be "other" in whatever way. There is a project called "Better Angels" that seeks to bring together people from different political polarities - perhaps this could be explored among other similar efforts."*
- *"Concern about possible consolidation of primary care practices to one central location. We need primary care in communities."*
- *"Connecting the youth of our community with elders can benefit both groups. Reducing isolation in elders is one of the best things our community can do to improve quality of life through nutrition and feeling of purpose."*
- *"Dental insurance is woefully expensive and poorly reimbursed. Dental care insurance is overpriced and undervalued as a health care need. It should be viewed as primary medicine, just as the PCP physician."*
- *"During 2017 and I was unemployed it was a struggle to get food. Duxbury Elf Shelf was a life preserver. Would like to see it supported and see it grow. It's desperately needed. Would help if it was open during hours that are outside of normal day job hours."*
- *"Homelessness should be a priority in Barre/Montpelier. More free residences and help finding affordable rentals."*
- *"I have adult children living at home ages 39 - 28 that were/are in need of health care services and insurance. They don't make enough money to afford health insurance, yet they make too much money to benefit from state assistance."*
- *"Our population is aging. Focus more on the elderly. School meals, meals on wheels, church & community meals."*
- *"There are too many programs, but not enough actual substantive help for people in need. People suffer on the margins in terrible conditions but there is little help outside of "crisis" situations and that help is limited, short term, and very expensive."*

- *"There is a HUGE need for primary care providers! We have almost none that take new patients. As VT's population continues to decline and senior citizens continue to increase in numbers, I see a really big problem."*
- *"Transportation issues continue to plague the Mad River Valley, effectively trapping low income residents in poverty, unable to access training, employment opportunities, and services."*
- *"Washington County is not just Montpelier. There are a lot of little towns with needs, too. Sometimes just getting to Montpelier is the struggle."*
- *"With an aging population, there is a need for activity transportation and indoor and low impact options, such as swimming, chair yoga, etc. This is a great place to live if you can walk outside and climb a mountain, but for many of us that is no longer an option. If I didn't work I would not leave my house all winter and would be extremely depressed. Even in the summer there are few options for socialization and activity that are geared toward the elderly or people with disabilities. We need to support community development that is inclusive of all whether it's gender, race, ethnicity, age or disability. Even getting to polling places and town meetings is difficult if you can't walk well."*

Community Survey findings were considered in conjunction with statistical secondary data to determine health priorities for Washington County. Community Survey data is valuable in informing community strengths and gaps in services, as well as wider community context for secondary data findings.

Focus Groups Summary

Background

As part of the 2019 CHNA, Focus Groups were conducted with residents in communities across the CVMC service area who have had experience with chronic conditions and/or behavioral health, including mental health and substance use disorder, comorbidities. The objectives of the Focus Groups were to assess attitudes and awareness toward chronic disease management; determine challenges that impact disease management; define barriers to accessing health care services; assess drivers of high cost health care utilization and gaps in safety net services; identify effective motivation tactics for improved self-care and community engagement; and explore behavioral health needs. A total of 33 people participated in the discussion groups. Following is a breakdown of the locations and participants per group.

Focus Group Locations and Attendees
Capstone Community Action, Barre: 8 attendees
Family Center of Washington County, Montpelier: 14 attendees
Twin Valley Senior Center, Montpelier: 11 attendees

Key Discussion Takeaways

Health Care Provider Insights

- **Express Care and Urgent Care locations were widely used and considered convenient health care alternatives.** Participants used these clinics as alternatives to both primary care and the emergency department. The wide majority of individuals had positive feedback about their experiences, and valued after hours care and ability for walk-in appointments.

- **Patient education is needed to clarify the role of Express Care and Urgent Care clinics as supplements to primary care versus replacements.** Some participants used Express Care and Urgent Care clinics in lieu of a primary care provider. With that, patients expected the same level of care they would expect from a PCP. Quality of care, lack of continuity of care, and "a relationship" with the provider were noted as lacking within the clinic settings.
    - "That's what is nice about Waterbury now. Nobody goes to the doctor, we just go to Express Care."
    - "The doctors at Express Care are not willing to go through your chart and learn about you as a patient."

- **Participants seek trusted, collaborative relationships with their providers; long appointment wait times and rushed appointments erode patient trust.** Participants valued providers who take the time to listen and talk with patients; explore health needs collaboratively; explain the reasoning and process for recommended treatments; and follow up via phone to "check-in." Participants equated short "rushed" appointments and long waiting room delays as the provider's lack of value of their health.

- "The times I feel disappointed by the visit are when my doctor's running late and we get into a sliver of the thing I came to talk about, and then there's only 15 minutes."
- "I would like it if my doctor would call once in a while to check on me because I'm on medications. I just get refills."

- **For some, seasoned "older" primary care providers were valued for taking additional time with patients and having broader expertise.**
  - "Older doctors will actually listen to you. The new providers are focused on medicine and cold book facts."
  - "I don't want someone my age. I don't want my physician to be my friend. I want that professional relationship."

- **Participants were divided in their use and value of online medical portals. Convenience, care instructions reference, and accessing test results were positives. Misinterpretation of test results and live follow up were concerns.**
  - "I like the portal because the labs are right there instead of calling. But the question is, can you accurately interpret the results? You may think it's something horrible when it's not."
  - "Give me a printout so that when I forget everything you told me 10 minutes from now, I have something to follow. I'd forget to look if I had to look at the portal. I need something in hand."

Access to Care

- **Hours of operation and lack of transportation were the top barriers to accessing primary care.** Evening hours, limited bus routes, and lack of reliable personal transportation were primary reasons for patients to cancel appointments and/or forego care.
  - "I had to either take a day off from work or skip school to go to the doctor."
  - "I've had to reschedule several times because I don't have transportation."
  - "My only ride is Stagecoach. I have to plan my appointments around their routes."

- **"Feel healthy" was a top reason young adults did not receive primary care.**
  - "I haven't been to the doctor in eight years. I feel healthy."
  - "I don't have a primary care doctor. I would need to make an initial appointment that I don't need, and then schedule follow-ups. I don't have time, and I feel healthy."

- **Health care costs, particularly prescription costs, were a significant barrier to care. Seniors were among the most impacted by health care costs.** Premiums, deductibles, and copays were concerns for participants, but prescription costs were a top reason for foregoing care or not following care instructions. Participants relied on family members to help with prescription costs, as well as health clinics like People's Health and Wellness. Some senior residents skip medications or take lower than recommended dosages to reduce costs. In some cases, cost savings are used to support a pet, primary companions for seniors.
    - "Pets are the #1 companion for seniors. They put their pets' needs before their medication."
    - "They [seniors] cut their pills in half, even if they can afford them. It's a mindset to reduce costs."

- **The unknown cost of health care was frustrating for consumers.** Participants struggled to receive cost estimates prior to procedures and had difficulty understanding medical bills, particularly when billed separately for provider and facility. Clearly itemized bills were preferred.
    - "It's very difficult to find out how much things cost. I had a surgical procedure done in office because I couldn't find out how much it would be in the OR."
    - "You can't be a responsible health care consumer or shopper without data."
    - "The way they bill is very confusing. You get your physician's bill and the hospital's bill. Why am I getting two bills?"

- **New primary care patients can wait months for an initial appointment. Most existing patients can be seen in 1-2 days for emergent needs, but usually not with their "regular" doctor.** Most saw a nurse practitioner or physician assistant, and were comfortable with that for an acute need. For chronic or serious illness, participants expected to see their regular provider. Some were referred to Express Care or Urgent Care if their PCP office couldn't schedule a visit within 1-2 days.
    - "It took me months to see a primary care provider as a new patient. There was a lot of paperwork."
    - "My regular provider is always at least two weeks out for an appointment."
    - "You have to schedule your next appointment with your doctor while you're in the office. Otherwise, it could be weeks to get an appointment."

- **It's difficult for patients to find Medicaid providers, particularly dentists, who are accepting new patients.** Dental care is the most difficult; primary care and vision care are also limited.
    - "I can't find a dentist anywhere [that accepts Medicaid]."
    - "I travel to Burlington for dental care, but I can't get to Burlington in two feet of snow. If you cancel once, you might as well kiss it goodbye because you'll wait six months to a year for a new appointment."

Behavioral Health Comorbidities

- **Substance use disorders are becoming destigmatized from communication and intervention, but other mental health diseases are still stigmatized and seen as "silent disorders."** Participants agreed that normalizing discussions about mental health with youth would help to destigmatize the topic.
    - "There's not a lot of understanding. If you say you have a mental health condition, people look at you funny or expect you to act a certain way."
    - "You can see the signs of what's happening with drug abuse. But someone with a mental issue, it's in their mind, it's invisible, so it doesn't really count."
    - "Students might not even know that they're struggling. They don't talk about it in schools. Kids need to know that if you're feeling like this, it's not just a feeling, it's a condition."

- **Participants saw inequity in the number of resources aimed at substance use disorder, while individuals with mental health and other chronic conditions struggle to afford care.**
    - "They're doing so much for people who are struggling with drug addiction and giving them needles. Yet my mom with diabetes can't afford needles and insulin and nobody is there to help her."
    - "The resources are going into drug addiction and not medical conditions."
    - "You look up drug rehab and there are eight in Barre, but there is only one mental health clinic. [Mental health care] doesn't get the attention it needs because everyone is focused on drugs."

- **Patients with a mental health condition have to be their own advocates when seeking care, prescriptions.**
    - "I have to fight my health insurance a lot to pay for medications. While you're fighting with them, you're going without your medication, which can change the chemical balance in your body. It takes 3-4 days to balance again, so for 1-2 weeks I'm back to where I started."
    - "Some doctors promote lifestyle changes first, but it doesn't always work. They tell me to fix my sleep schedule and eat healthy, all your other programs will disappear. One of my other problems is chronic insomnia. They don't understand. I had to find somebody else."

- **Social supports, case management services are needed for individuals with mental health conditions.** More case managers and social supports, particularly transportation, are needed. Services are offered by Washington County Mental Health Authority, but were seen as limited.
    - "I used to have a support worker who would help me with transportation and just getting to the laundromat. Now, rides are for appointments only. The program

wants you to get out into the community and better yourself, but how can you do that if they're not offering [transportation] services."

- "There are not enough case managers, and the ones that are available, expect you to go on their schedule, not yours. You take the slot available or nothing at all. I only see mine once per month, I would like that to be once per week."

- **Child mental health services are missing services in the community.** Mental health care needs for children are increasing, while service capacity remains stagnant. Participants identified high turnover in providers as a leading contributor to service gaps. Specific needed child services are emergency inpatient care, school-based counselors, and therapists. Services for children under the age of five were seen as particularly lacking.
  - "My grandchild was on a wait list for six months for a therapist because the last provider went on maternity leave and then took another position. My other grandchild is on her third provider because the others left. She's acting out now. She doesn't get to bond [with her provider]."
  - "We're lucky if we can find two therapists to work with kids. We have 900 kids across the Barre School District in need of services."
  - "I've worked in education for many years and have seen an increase in the number of children who need [mental health] services. Usually there is a wait list. There is no money for children aged 0-5. There's a little more money for older children, but still not enough."

- **Autism testing is extensive and time intensive; services have a wait list.** Autism is a growing need among children and their families. The process to receive Autism testing and services is time intensive, often spans several months, and requires multiple appointments with multiple providers. Available Autism services, like childcare, were seen as lacking for both medical and social needs.
  - "I was told I would be lucky to get an appointment within two months of finishing the pre-screenings."
  - "It was difficult for me to find daycare. He looks normal, but he wouldn't speak. The daycare providers didn't know how to handle him. I ended up not being able to work."

- **Stable housing options are needed for homeless individuals, especially young men.**
  - "I've been asking around to help my brother find stable housing, and there's nothing for young men when they become homeless."
  - "We need more strong leadership from older men to intervene in situations of crisis with younger men who are dealing with a psychiatric issue."

- **Seniors with depression, other mental health needs "keep it to themselves."** Mental health concerns are prevalent among seniors, but they are not comfortable talking with their providers about mental health. Social isolation was seen as a primary reason for depression among seniors. Outreach groups to address isolation and bereavement were recommended.
    - "They [providers] don't have enough time. You wait 15 minutes and see them for three minutes. They don't know you." "
    - "The people getting Meals on Wheels look forward to seeing the drivers come because it is someone to talk to."
    - "I'd like to talk to someone, but there's no one there."

Community Supports

- **Support is key to managing chronic conditions, including mental health and substance use disorder.** Participants rely on their family and friends as a support network. Support groups are helpful, but participants find it "hard to get your foot in the door" when they don't know anyone in the group. They recommended offering support groups in connection with other programs, like Capstone. Senior perceptions of support groups and senior centers were similar.
    - "Seniors are used to working hard and being independent. It's the first hurdle, getting them through the door. They need a personal invitation."

- **The geography and weather in Washington County makes it harder for seniors to manage their health.** Poor winter weather conditions preclude individuals from being outdoors. Seniors are afraid to leave their homes due to fear of driving and/or falling. Participants recommended indoor recreation options during the winter months and sponsored transportation options to access these services.

- **Pain and physical limitations reduce physical activities among seniors.** Senior participants with chronic conditions had given up activities they once enjoyed. Seniors need more age-friendly exercise classes and non-physical activities, like volunteering and continued education, to engage in community.

- **Available resources and services need to be better communicated to residents. "There are a lot of good things happening in this area."** VeggieVanGo Mobile Food Pantry and church-sponsored free laundry nights are not widely known, but seen as positive resources. Participants recommended using churches, word of mouth, and community champions to spread information.

Focus group findings were reviewed with the CHNA committee and correlated with statistical secondary data and Community Survey findings to inform priority health needs and community health improvement strategies.

Prioritization Process for Community Health Needs

Representatives of CVMC, THRIVE, and CAN met to review CHNA research findings and community input to determine priority health needs for Washington County. Through facilitated dialogue, participants considered contributing social issues, existing community resources, gaps in services, and expertise in determining recommendations for priority health issues. Discussion culminated in the identification of the following health needs (listed in alphabetic order), that if addressed, would have wide-sweeping community impact:

- Financial stability
- Food security
- Healthy Lifestyles
- Housing
- Mental Health
- Substance Abuse

Committee members used a prioritization matrix to rank the issues based on four independent criteria. A summary of the criteria and the prioritization results are shown below.

Community Health Priorities as Determined by CHNA Committee Members
Rankings are based on a score of 1 (low) to 4 (very high)

Overall ranking	Identified health need	Scope of the issue	Severity of the issue	Ability to impact the issue	Community readiness to address the issue	Overall score
1	Substance Use Disorder	3.03	3.45	2.50	2.77	11.75
2	Mental Health	3.32	3.39	2.37	2.33	11.41
3	Food Security	2.84	2.77	2.84	2.71	11.16
4	Housing	3.13	3.39	2.16	2.30	10.98
5	Healthy Lifestyles	2.61	2.52	2.35	2.23	9.71
6	Financial Stability	2.90	2.90	1.61	1.90	9.32

Central Vermont Medical Center used this information in conjunction with CHNA findings and stakeholder feedback to determine which priorities to focus community health improvement efforts over the 2019-2022 reporting cycle.

Based on CVMC's existing expertise and resources, the medical center is best positioned to lead efforts in multiple areas (in no order of importance):

1. Access to primary and specialty care: CVMC will work to improve access to its primary care and specialty care clinicians. Access improvement strategies will include practice standardization, consolidation, improvement in care management services and implementing telemedicine services.

2. Substance Use Disorders: CVMC is a leading partner with the Washington County Substance Abuse Regional Partnership (WCSARP). CVMC, through a collaborative grant with WCSARP members was able to obtain a grant through HRSA to hire a project manager. The project manager is primarily responsible for guiding WCSARP into four domains to address 1. Prevention strategies 2. Treatment programming 3. Recovery support 4. Sustainability which will include additional grant requests. CVMC also has initiatives to improve access to medication assisted treatment (MAT), harm reduction initiatives, mental health support for patients wanting access to recovery, and improving our clinician's opioid prescribing practices.

3. Mental Health Care: CVMC along with UVM Health Network are in the planning stages of adding a 25 bed inpatient psychiatric unit to our current 15 bed unit. This will greatly increase the inpatient psychiatric capacity around the state. This project is hoped to be on target for completion in 2023. Also in an effort to improve outpatient mental health services, CVMC will also be considering integrating behavioral health care into primary care over the next three years.

4. Social Influencers of Health: CVMC is a leading partner with the local community collaborate THRIVE. CVMC will work with THRIVE members to develop and potentially fund additional initiatives to address social influencers of health that were identified in this report including homelessness, financial stability and food security as this is beyond the current scope and resources of the medical center to address independently.

5. Care of stroke patients: Through collaboration with UVM Health Network and with the support of telemedicine services, CVMC is pursuing certification as an "Acute Stroke Ready Hospital" in 2020. This will help us standardize the care of patients presenting to our emergency department with signs/symptoms of a stroke, and will expedite their transfer if needed to a higher level of care.

6. Heart Disease: Identified as the number one cause of death in our region and nationally, CVMC will continue to pursue finding ways to not only improve outcomes of patients with identified heart disease, but also to improve access to life style choices that prevent heart disease. CVMC is implementing a heart failure readmission reduction program in collaboration with Central Vermont Home Health and Hospice to 1. Implement a new heart failure inpatient service 2. Improve transitional care coordination for patients identified with heart failure from the inpatient to outpatient levels of care, and 3. Develop a care management program to help with compliance of diet, exercise and medication treatment recommendations.

Evaluation of Impact from 2016 CHNA Implementation Plan

Background

In planning for the 2019-22 Implementation Plan cycle, CVMC reviewed activities and outcomes from the previously developed 2016-19 plan to evaluate the impact of their efforts on improving community health measures.

Guided by the findings from the 2016 CHNA and input from key community stakeholders, CVMC focused on the following priorities during the 2016-19 Implementation Plan cycle.

- Drug abuse
- Mental health
- Tobacco use
- Healthy diets
- Youth participation in physical activities

The 2016-19 Implementation Plan outlined specific goals, objectives, and strategies to address the identified priority health needs. The plan leveraged resources across the health system and the community, drawing on existing and potential partnerships. The following pages highlight CVMC's approach to addressing priority needs, and outcomes from the implemented action items.

Drug Abuse

Central Vermont Medical Center continues to work with community partners including the Vermont Department of Health Alcohol and Drug Abuse Program, Washington County Mental Health Services, Central Vermont Substance Abuse Services, Treatment Associates, and Central Vermont Addiction Medicine to increase access to care and support transitions of care as individuals move through the treatment cycle. It is important that community members have knowledge of the resources that are currently available to them.

Central Vermont Medical Center sponsors the Washington County Substance Abuse Regional Partnership (WCSARP), which meets monthly to coordinate services, solve access and care management problems, and erase boundaries of care. The group includes, among others, the Agency for Human Services Barre Hospital Service Area (HSA), Vermont Department of Health, local hub-and-spoke partners, the designated agencies for mental health and substance abuse (Washington County Mental Health Services, Central Vermont Substance Abuse Services), prevention partners, the Turning Point Recovery Center, the Youth Services Bureau, residential care providers, and local law enforcement.

Three important programs emerged out of gaps identified by WCSARP:

- CVMC's Emergency Department initiated an alcohol withdrawal protocol in collaboration with Washington County Mental Health Services and the Turning Point Recovery Center to provide 24/7 community-located supervised medically assisted withdrawal (MAW);
- The Emergency Department has also initiated the state's first Rapid Access to Medication Assisted Treatment (RAM) to provide immediate 24/7 induction with buprenorphine linked to rapid hub-and-spoke access;
- The Turning Point Center is currently managing a Vermont Opioid State Response Project to bring peer recovery supports into the Emergency Department and hospital inpatient units to assure stable transitions to the community.

Mental Health

Central Vermont Medical Center, in partnership with Washington County Mental Health Services, has created a model of embedding behavioral health practitioners within CVMC primary care practices. In addition, we are piloting an integrated health home that promotes a model of health care that integrates the social determinants of health with specialized treatment for individuals with complex physical health, mental health, developmental, and substance abuse challenges.

Central Vermont Medical Center, in collaboration with the Family Center of Washington County and Washington County Mental Health Services, initiated the Adverse Childhood Experiences (ACEs) project. As part of the project, Family Support Specialists are embedded in CVMC's pediatric practice, targeting age groups 0-36 months, to promote child and family protective factors, prevent and mitigate toxic stress, and promote healthy child development for a period of one year.

Tobacco Use

Central Vermont Medical Center offers a Tobacco Cessation program on and off site throughout the year. Currently, we are able to assist participants with support and free nicotine replacement therapy such as gum, patches and lozenges. In addition, Screening, Brief Intervention, and Referral to Treatment (SBIRT) clinicians, also trained as Tobacco Treatment Specialists, provide individual tobacco cessation counseling to promote successful quitting.

Through the CVMC Self-Management Program, we continue to attend local employers' wellness fairs, including: State Employee Wellness, Washington County Mental Health Services, and community based outreach (Barre Heritage Festival, Montpelier Alive). Our outreach work serves as a tool for educating and networking with community members. We are continuing to work with our local partners and connect with local collaborative and workgroups to expand our reach and service to different populations.

Healthy Diets

Central Vermont Medical Center recognizes the importance of inspiring healthy lifestyle changes and providing resources to the community to assist people trying to stay healthy through community health fairs. Health fairs are a way to make important screenings (e.g. blood pressure checks, body composition) and health information accessible to the general population for little or no cost.

Central Vermont Medical Center chose three unique populations to promote health through health fairs: Montpelier, Northfield, and Barre. Tailoring content for each population led to high volume community participation rates. The health fairs were staffed by registered dietitians, nurses, and certified health wellness coaches. These individuals consistently provided proactive information, such as nutritional displays, recipes, smoothie bike rides, healthy living workshops, worksite wellness ideas, and walking exercise programs. Being present and offering engaging activities provided the community with a venue to ask health-related questions, garner ideas for needed resources, and make connections with health professionals they may not encounter otherwise.

Youth Participation in Physical Activity

Central Vermont Medical Center's population health management goals revolve around the identification of risk factors that, if addressed early, can reduce the prevalence of chronic medical conditions later in life.

Panel management efforts continue within our CVMC Pediatric Primary Care practice to identify children that are overdue for well-child visits and provide outreach to encourage them to attend. Body mass index is calculated at each well-child visit and education is provided around the importance of physical activity for our pediatric patients. In addition, the CVMC School-Based Health Program, an extension of our pediatric primary care practice, operates two days each week at the Barre City Elementary and Middle School. One of the benefits of the program being embedded in the school setting is that it provides greater opportunity for our clinicians to directly promote the importance of physical activity and how it impacts overall health and well-being with pediatric patients.

Staying Central to Your Well-Being

At CVMC, we pride ourselves in being an important part of the community of 66,000 Vermonters we are here to serve. Our staff, volunteers, donors, patients and physicians are your friends, family and neighbors. They are ours, too. Whether you're looking for a doctor, trying to improve your diet, starting a family, or recovering from an illness - we're here to help. Central Vermont Medical Center - central to your well-being.

CHNA Approval by CVMC Board of Directors

The CVMC Board of Directors reviewed and approved the 2019 CHNA on September 4, 2019. Following the Board's approval, the CHNA report was made available to the public via the health system's website: https://www.cvmc.org/about-cvmc/community/community-health-needs-assessment.

The corresponding 2019-22 Implementation Plan was developed between September 2019 and January 2020 and approved by the Board of Directors in early 2020.

Central Vermont Medical Center thanks our community partners for their valuable contributions in support of the 2019 CHNA. We welcome your continued input and look forward to your partnership in collectively working to improve the health of residents across our community.

For additional information about the CHNA or to learn more about the 2019-22 Implementation Plan, please visit www.cvmc.org.

Appendix A: 2019 THRIVE Community Representatives

The 2019 CHNA was guided by the THRIVE Accountable Health Communities committee and its Community Action Network (CAN) subcommittee. THRIVE Steering Committee members are listed below. CAN subcommittee members are starred.

- Steve Ames, Building Bright Futures
- Cara Armstrong, Norwich University
- Pam Bailey, Green Mountain United Way
- Linda Bartlett, The Health Center-Plainfield
- Rebecca Baruzzi, Capstone Community Action
- Heather Bollman, Department of Vermont Health Access
- Tim Bombardier, Barre Police Department
- Michelle Boucher, Washington County Mental Health
- Phil Brown, Central Vermont Medical Center
- Beth Burgess, United Way, 2-1-1
- Ginny Burley, Central Vermont New Directions Coalition
- Kelly Bushey, Washington Central Supervisory Union (32)
- Dawn Butterfield, Capstone Community Action
- Yvonne Byrd, Montpelier Community Justice Center
- Kathy Camisa, OneCare Vermont
- Erica Campbell, Senator Sanders Office
- Davoren Carr, Central Vermont Council on Aging
- Deb Caruso, Vermont Department for Children and Families
- Brett Chornyak, Central Vermont Council on Aging
- Hillary Cole, Barre Housing Authority
- Gail Colgan, NE Quality Innovation Network-Quality Improvement Organization
- Faye Conte, Hunger Free Vermont
- Allison Conyers, Harwood Unified Union School District
- Jenna Cornielle, The Health Center-Plainfield
- *Dan Currier, Central Vermont Regional Planning Commission
- Michael Curtis, Washington County Mental Health Services
- Sarah Davis, Department of Vermont Health Access
- Mark Depman, Central Vermont Medical Center
- Mattie Dube, Another Way VT
- Billi Dunham, Community College of Vermont
- *Will Eberle, Vermont Agency of Human Services
- Jeremiah Eckhaus, Central Vermont Medical Center
- Anthony Facos, Montpelier Police Department
- Angela Fagginger-Aver, Washington County Mental Health
- Teresa Fama, Central Vermont Medical Center
- Robert Farrell, Good Samaritan Haven
- Joseph Ferrada, Family Center of Washington County
- Heather Filonow, Barre Gardens
- Patricia Fisher, Central Vermont Medical Center
- Maureen Fraser, OneCare Vermont
- William Fraser, City of Montpelier

- Liz Genge, Downstreet Properties
- Ann Gilbert, Central Vermont New Directions Coalition
- *Rebecca Goldfinger-Fein, People's Health and Wellness Clinic
- Maura Graff, Planned Parenthood of Northern New England
- Carolyn Graves, Vermont Department of Disabilities, Aging, and Independent Living
- Sara Graves, Planned Parenthood of Northern New England
- Cindy Gregoire, Vermont Department for Children and Families
- Nicole Grenier, Washington County Mental Health Services
- Jewelene Griffin, Central Vermont Home Health & Hospice
- Toni Grout, Capstone Community Action
- Charles Gurney, Vermont Department of Health
- Paul Habersang, Christ Church
- Catherine Hamilton, BlueCross BlueShield of Vermont
- Lucas Herring, Barre City
- Jaclyn Holden, Vermont Blueprint
- Deborah Hopkins, Clara Martin Center
- Jackie Jones, Washington County Mental Health Services
- Margaret Joyal, Washington County Mental Health Services
- Roger Kellogg, Central Vermont Medical Center
- *Claire Kendall, Family Center of Washington County
- Kim Kie, Hedding United Methodist Church
- Patrice Knapp, Central Vermont Medical Center
- Earl Kooperkamp, Church of the Good Shepherd
- Brian Kravitz, Central Vermont Adult Basic Education, Inc.
- *Tawnya Kristen, Green Mountain United Way
- Jolinda LaClair , Vermont Agency of Human Services
- Sarah Launderville, Vermont Center for Independent Living
- Suzanne Legare Belcher, Vermont Agency of Human Services
- *Theresa Lever, Center Vermont Medical Center
- Katarina Lisaius, Senator Sanders Office
- Paige Loeven, Central Vermont Medical Center
- Dawn Lowery, Another Way Vermont
- Nicole Lukas, Vermont Department of Health
- Jeannie Macloed, Greater Barre Community Justice Center
- Erhard Mahnke, Vermont Affordable Housing Coalition
- *Zach Mai, Central Vermont Regional Planning Commission
- Beth Ann Maier, Church of the Good Shepherd
- Javad Mashkuri, Central Vermont Medical Center
- Carolyn McBain, Vermont Department of Mental Health
- Sarah McMullen, Capstone Community Action
- Amos Meacham, Pathways Vermont
- Chris Meehan, Vermont Food Bank
- *Sue Minter, Capstone Community Action
- *Joan Marie Misek, Vermont Department of Health
- Monika Morse, Central Vermont Medical Center
- *Mary Moulton, Washington County Mental Health Services
- Karen Nelson, Vermont Department of Health
- Bernie Noe, Green Mountain Natural Health

- Anna Noonan, Central Vermont Medical Center
- Eileen Nooney, Capstone Community Action
- Shane Oakes, Family Center of Washington County
- Jenna Donnell, Hunger Free Vermont
- Mairead O'Reilly, Vermont Legal Aid
- Ed Paquin, Disability Rights Vermont
- Megan Peek, BlueCross BlueShield of Vermont
- Eileen Peltier, Downstreet Properties
- Kreig Pinkham, Washington County Youth Service Bureau
- Joshua Plavin, BlueCross BlueShield of Vermont
- Kirk Postlewaite, Washington County Mental Health Services
- Johanna Rawson, Central Vermont Medical Center
- Elizabeth Roach, OneCare Vermont
- *Sandy Rousse, Central Vermont Home Health & Hospice
- Colleen Sanford, BlueCross BlueShield of Vermont
- Deborah Sanguinetti, Vermont Department of Health
- John Sayles, Vermont Food Bank
- Laura Scharf, Capstone Community Action
- Connie Schutz, Vermont Department of Corrections
- Laura Siegel, Disability Rights Vermont
- Patricia Singer, Vermont Department of Mental Health
- Jamie Smith, Green Mountain Transit
- Sandy Soho, OneCare Vermont
- Lily Sojourner, Vermont Department for Children and Families
- *Beth Stern, Central Vermont Council on Aging
- Claude Stone, Morse Farm
- William Sugarman, Vermont Department of Disabilities, Aging, and Independent Living
- Mary Thompson, Washington County Mental Health Services
- Leslie Tocci, Washington County Mental Health Services
- Elaine Toohey, Another Way Vermont
- Anne Toolan, Prevent Child Abuse Vermont
- Ashley Turner, Central Vermont Medical Center; Community Health Team
- Carl Hilton VanOsdall, First Presbyterian Church of Barre
- Nissa Walke, Vermont Blueprint
- *Bonnie Waninger, Central Vermont Regional Planning Commission
- Leslie Weed-Fonner, Washington County Mental Health Services
- Matthew Whalen, Vermont Department of Health
- Priscilla White, Vermont Department for Children and Families
- Sara Winters, Greater Barre Community Justice Center
- Mark Young, Central Vermont Medical Center

Appendix B: Health and Socioeconomic Data Sources

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