



Choosing Health

NORTHEASTERN VERMONT
REGIONAL HOSPITAL



Community Health Needs Assessment 2021



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The Northeastern Vermont Regional Hospital Community Health Needs Assessment was adopted by the Senior Leadership Team on April 6, 2021

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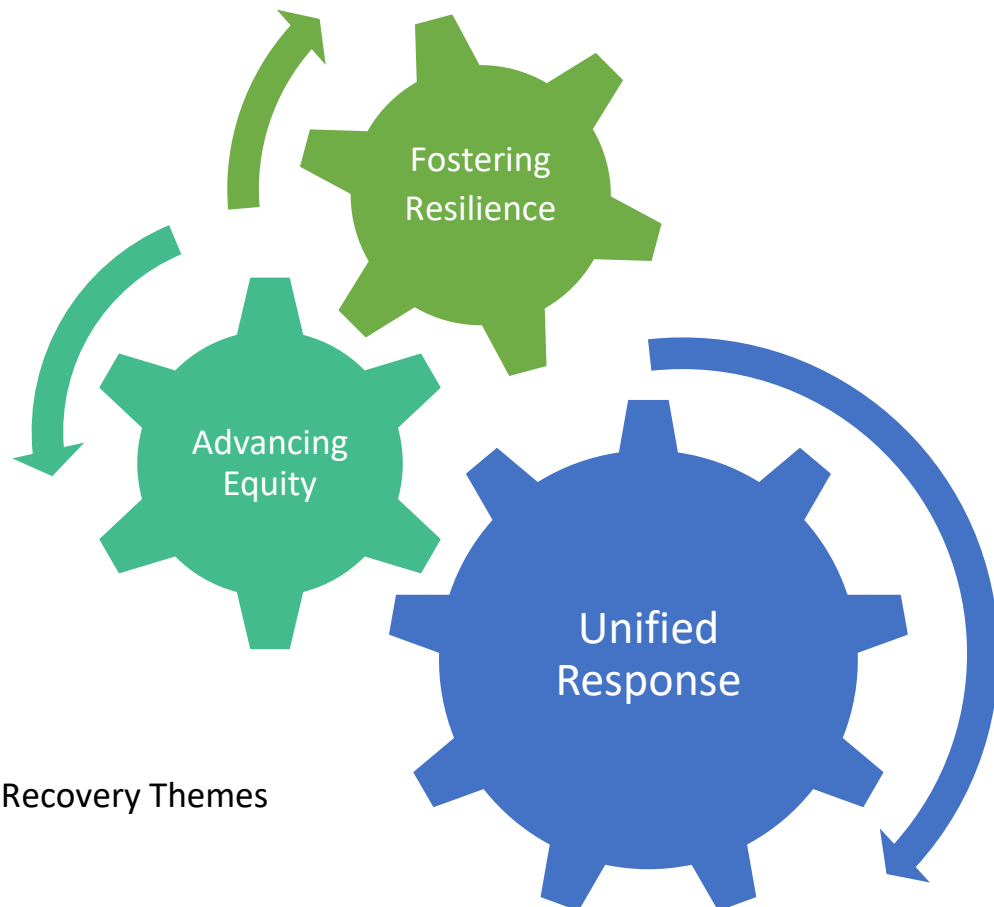
INTRODUCTION

Northeastern Vermont Regional Hospital Community Health Needs Assessment 2021

The Patient Protection and Affordable Care Act (ACA) of 2010 required all not-for-profit hospitals in the United States to conduct a community health needs assessment (CHNA) at least every three years (beginning in 2012). While NVRH regularly conducted needs assessments prior to the ACA requirement, this is the fourth assessment done using the ACA requirement and guidelines.

As required, the NVRH Community Health Needs Assessment includes:

- A definition of the community served
- A description of the process and methods used to conduct the assessment
- A description of how the hospital took into account input from people who represent the broad interests of the community
- A description of the health priorities and significant community health needs
- A description of the potential measures and resources



Post-COVID Recovery Themes

NVRH, a 25 bed hospital, is the largest employer in the region, with over 600 employees. The hospital operates four rural health clinics and several specialty medical offices. Northern Counties Health Care, Inc. operates three FQHC's and home health and hospice for the region. All the primary care offices in the region are recognized NCQA Patient Centered Medical Homes. Mental health services are provided by Northeast Kingdom Human Services - our regional designated mental health agency - and many independent providers in private practice. There are several independent long-term care facilities in the area. Comprehensive cancer care and dialysis are provided by Dartmouth Hitchcock Medical Center (cancer care) and Fresenius (dialysis) in a building owned by the hospital on the NVRH campus. Medically Assisted Treatment (MAT) for opioid addiction is provided by BAART and SaVida, as well as Northeast Kingdom Human Services and several primary care offices operated by the hospital and Northern Counties Health Care.

The 2021 CHNA builds on the foundation of the previous assessments, but focuses on assessing the impact of the coronavirus pandemic on people in the region.

A white paper prepared by George Washington University (Advancing Equity in the Nation's COVID-19 Public Health Response and Recovery Efforts. January 2021) identified four areas for post-pandemic recovery:

- Respond to pent-up demand for care that has been deferred
- Address emotional trauma of both communities and healthcare workers
- Monitor and provide treatment for long-term health consequences of COVID-19
- Target response to underlying health-related social needs that have been exacerbated, including food and housing insecurity.

These four focus areas will guide our community work in the next three years as the region, the country, and the world recovers from the pandemic.

The Communities We Serve

Northeastern Vermont Regional Hospital is located in Vermont's Northeast Kingdom; an area known for its rugged rural beauty, and equally rugged and independently spirited people. The area is a mix of rolling hills, mountains, and river valleys.

The primary service area for NVRH is just under 30,000 people. **The Vermont Department of Health define the service area as these towns and their villages in Caledonia and southern Essex counties in northeastern Vermont:** Barnet, Burke town, Concord town, Danville town, East Haven, Guildhall, Granby, Kirby, Lunenburg, Lyndon town, Maidstone, Newark, Sheffield, St. Johnsbury town, Sutton, Victory, Walden, Waterford town, Wheelock. The major population centers are St. Johnsbury, Lyndon, and Danville. All other towns have less than 2000 people. Residents of other surrounding towns including Peacham, Gilman, Ryegate, Glover, Barton, and several others consider NVRH their community hospital.

The area is quite rural with a population density in Caledonia County of 48.1 persons per square mile and only 9.5 persons per square mile in Essex County (US Census Quick Facts). Both counties are bordered by the Connecticut River to the east.

Table 1. Basic Demographic Data for Caledonia and Essex Counties

| | Caledonia | Essex |
|------------------------------|------------------|--------------|
| Population July 2019 | 29,993 | 6,163 |
| Percentage change since 2010 | -4.0% | -2.3% |
| Age and Sex | | |
| • % Female | 50.1% | 49.7% |
| • < 5 years of age | 4.7% | 4.5% |
| • < 18 years of age | 19.1% | 17.1% |
| • 18 - 64 | 54.1% | 51.9% |
| • 65 and older | 22.1% | 26.5% |
| Race | | |
| • White (non-Hispanic) | 96.1% | 95.1% |
| • Hispanic | 1.7% | 1.5% |
| • Black or African American | .9% | 0.6% |
| • All other | 1.3% | 2.8% |

Source: U.S. Census Bureau;

<https://www.census.gov/quickfacts/fact/table/essexcountyvermont,caledoniacountyvermont,US/PST045217>

Table 2. Health indicators that are concerning or where our service area is significantly worse than the Vermont aggregate. Due to Vermont Department of Health staff reassignment during the coronavirus pandemic, this data has not been updated since the last NVRH CHNA.

| Indicator | Data Source | Hospital Service Area | VT |
|--|-----------------------------|------------------------------|-----------|
| Primary Care Provider FTEs per 100,000 Vermonters – Physicians (MD and DO) | Healthcare Workforce Census | 68 | 75 |
| Mental Health professional FTEs per 100,000 | Healthcare Workforce Census | 198 | 342 |
| Percent of adults with a depressive disorder | BRFSS | 21% | 22% |
| Percent of adolescents in grades 9-12 who made a suicide plan | YRBS | 11% | 12% |
| Rate of suicide deaths per 100,000 Vermonters | Vital Statistics | 23 | 14 |
| Percent of adolescents in grades 9-12 who smoke cigarettes | YRBS | 17% | 11% |
| Percent of adolescents in grades 9-12 binge drinking in the past 30 days | YRBS | 16% | 16% |
| Percent of adolescents in grades 9-12 who used marijuana in the past 30 days | YRBS | 16% | 22% |
| Percent of adults age 20 and older who are obese | BRFSS | 31% | 28% |
| Percent of adults age 20 and older who are overweight | BRFSS | 35% | 34% |
| Percent of adults meeting aerobic physical activity guidelines | BRFSS | 52% | 59% |
| Percent of adolescents in grades 9-12 meeting physical activity guidelines | YRBS | 21% | 23% |
| Percent of adults who do NOT eat 5 fruits & vegetables per day | BRFSS | 82% | 80% |
| Percent of adolescents in grades 9-12 who do NOT eat 5 fruits & vegetables per day | YRBS | 77% | 76% |

Vermont Department of Health; <http://www.healthvermont.gov/ia/CHNA/HSA/atlas.html>

Process and Methods

A Community Health Needs Assessment Steering Committee was formed in December 2020. The Steering Committee's responsibility was to provide guidance and support for engaging and collecting input from community stakeholders, and review and analyze data and other relevant information to assess service area needs and gaps. Steering Committee members also provided primary and secondary source data generated by their respective organizations.

Steering Committee Members:

Laural Ruggles, NVRH VP Marketing and Community Health Improvement
Katie Bocchino, NVRH Director of Healthcare Integration
Heather Lindstrom, St. Johnsbury District Office Director, Vermont Department of Health
Meg Burmeister, Executive Director, Northeastern Vermont Council on Aging
Cheryl Chandler, NVRH Director, Substance Misuse Prevention
Suzanne Legare-Belcher, District Field Director, VT Agency of Human Resources
Shawn Tester, CEO, Northeastern VT Regional Hospital
Terri Lavelly, Northeast Kingdom Human Services
Joe Kasprzak, NVRH Board of Trustees, Assistant Town Manager – St. Johnsbury
Bruce Melendy, Northeast Kingdom Development Association

Secondary source data for this needs assessment was provided by a variety of sources. A complete list of secondary sources reviewed for this assessment is included as an Appendix. Secondary source data collection started in fall 2020 and ended in April 2021.

In a “normal” year, we would start the CHNA process by looking at health data and other population statistics for our service area to identify the most vulnerable populations. Next we would target outreach and engagement with those groups of people to hear about their lives, health, experiences, and what they feel are the most important needs and biggest barriers – and successes – in improving health.

But this is not a normal year. The global coronavirus pandemic has often been described as unprecedented – and it is; as a world-wide health crisis in both size and scope, and disastrous impact on health and well-being. But unlike a disaster like a hurricane or tornado, where we can walk outside and visually see the damage, the health and psycho-social damage from the pandemic is less visible and may not be fully seen for many years.

No one was spared the effects. State and national studies show that age, race, gender, and the presence of existing chronic condition often determined who

We do not have internet or a smart phone! Older adult, NEK Council on Aging survey

got critically ill or died from COVID-19 (COVID-19 Among BIPOC Vermonters, December 2020), but the isolation, economic impact, mental and emotional health was far more equitable in its adverse impact. The long-term impacts of social isolation on adults and “Zoom” school on children, and the economic impacts on business and employees will be studied for years and decades to come.

A national study showed a significant increase in adults reported symptoms of anxiety or depressive disorder and those with unmet mental health needs from August 2020 to February 2021. The largest increase was among people 18 – 29 years of age. (CDC Morbidity and Mortality Weekly Report. March 26, 2021). Youth in Vermont reported the social isolation, inherent uncertainty, and limits of virtual classes during the pandemic has been particularly hard on them at a time in their lives when they are supposed to be embracing all of life's possibilities. (Virtual Youth Forum with Governor Phil Scott. March 25, 2021)

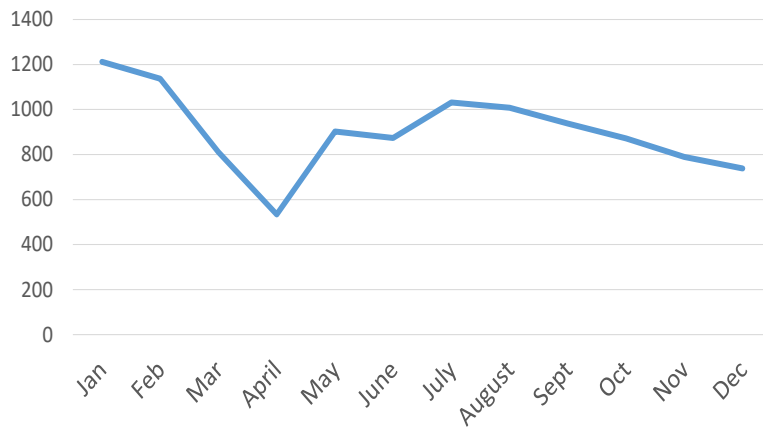
Our partners at Northeast Kingdom Human Services (NKHS) tell us that there was a significant increase in emergency services and screening across the State - mostly for suicidal ideation - in the first few months of 2021. NKHS Emergency Services saw their daily average for screening individuals jump from on average of 3 – 4 individuals a day to an average of 7 – 8 individuals a day. Youth seem to be the most greatly impacted. The most prevalent issue is anxiety, or fear of the unknown. Depression appears to be less of an issue than anxiety. In the words of one clinician "people are chomping at the bit for any level of connection they can get."

Accessing mental health services during the pandemic was challenging due to varying access to and ability to use both Wi-Fi and electronic devices. Moving to telehealth is challenging for both individuals receiving mental health supports and mental health provider. NKHS clinicians report delivering care via tele-health is very different than face to face with the loss of interpersonal communication and the lack of ability to read body language and nonverbal communication. During the pandemic, NKHS made accommodations for face to face visits for those at high risk or those who could not access telehealth services.

State-wide, insufficient inpatient options for mental health continues to be an issue. Patients waiting for higher level treatment and support offered at inpatient facilities supports are being held in emergency rooms and community hospital medical surgical units across the state. **This is a systematic issue that challenges our community hospitals, community mental health providers, and patients and their families.** The NVRH Emergency Department saw a 10% increase in 2020 of visits with a chief complaint of psychiatric evaluation (218 visits in 2019, up to 240 in 2020).

While some areas of the country saw an increase in fatal drug overdoses, largely driven by synthetic opioids like fentanyl (CDC health advisory, December 17, 2020), the NVRH ED saw a decrease (for all types of drugs; and accidental and intentional overdoses combined) from 108 in 2019 to 82 in 2020.

Figure 1. NVRH Emergency Department visits calendar year 2020.



We know people have delayed healthcare during the pandemic – often due to fears of exposure to COVID-19 or limited access to telehealth options. The NVRH Emergency Department saw a dramatic decrease in visits at the beginning of the pandemic and did not return to pre-pandemic numbers by the end of 2020 (Figure 1). The NVRH primary care practices all saw a decrease in overall visits in calendar year 2020 compared to the year before (Table 3).

Table 3. Comparison of NVRH Primary Care Visits, calendar year 2020 and 2019

| Name | 2019 | 2020 | % decrease |
|---------------------------|--------|--------|------------|
| Corner Medical | 16,862 | 13,319 | 21% |
| Kingdom Internal Medicine | 8908 | 7732 | 13% |
| St Johnsbury Pediatrics | 13,225 | 11,777 | 11% |
| Total telehealth in 2020 | | 3932 | |

A report by the Vermont Foodbank and Hunger Free Vermont states that food insecurity in Vermont rose dramatically during the pandemic from 1 in 10 before the pandemic to 1 in 3 in March 2020; State and Federal COVID supports helped lower that rate to 1 in 4 by June. (Legislative Briefing for Advocates. December 2020). A survey by the University of Vermont released in November 2020, found that households where people lost their jobs or reduced hours, those with children, those making less than \$50,000 a year, and those without a college degree were most likely to experience food insecurity. Half of those reporting food insecurity also reported eating less fruits and vegetables since the start of the pandemic (COVID-19 Impacts of Food Security and Systems: A Third Survey of Vermonters. November 2020)

Community partners including the Vermont Foodbank, NEK Community Action, NEK Council on Aging, local food shelves, and restaurants, all rallied to get food to people who needed it. State funded programs like Farmers to Families and Everyone Eats found new ways to distribute food to people. Federal COVID support provided Universal School Meals for all kids, and increased SNAP (Vermont 3 Squares) benefits.

Veggie Van Go at NVRH went from an average of 280 families served per month in 2019 to a high of 500 families in September 2020. NEK Council on Aging saw a 63% increase in senior meals serviced in December 2020 over the same month the year before.

The pandemic revealed the true extent of the homeless issue in our region. In 2020, VT211 data showed that housing was the most requested type of need in Caledonia County (385 referrals out of a total of 1481). The warming shelter in St. Johnsbury was shut down in March of 2020 due to concerns about COVID-19. The shelter housed up to 10 people each night, and that number seemed to be consistent over the years. With the pandemic, the state of Vermont quickly went to a motel voucher system for both individuals and families. In the St. Johnsbury district, 75 motel rooms housed 87 adults and 19 children during the pandemic.

Unified Response

At NVRH we know healthcare alone plays a surprisingly small role in overall health. Social contributors to health like income, education, affordable housing, and access to healthy food, as well as access to medical care and mental health services all play a role. With the leadership of NVRH, NEK Prosper – Caledonia and Southern Essex Accountable Health Community was formally launched in January 2015. NEK Prosper operates using collective impact principles, and uses a formal governance structure for NVRH and our many partners to come together to create a common set of goals, share data on important health measures, and pool our talent and resources to improve health and quality of life in our region.

An Accountable Health Community (AHC) is an aspirational model—accountable for the health and well-being of the entire population in its defined geographic area and not limited to a defined group of patients. Population health outcomes are understood to be the product of multiple determinants of health, including medical care, public health, genetics, behaviors, social factors, economic circumstances and environmental factors. An AHC supports the integration of high-quality medical care, mental and behavioral health services, and social services (governmental and non-governmental) for those in need of care. It also supports community-wide prevention efforts across its defined geographic area to reduce disparities in the distribution of health and wellness. (The Prevention Institute)

Today, NEK Prosper includes members from healthcare, human services, housing, transportation, mental health, community action, charitable food, funders, school districts, domestic violence agency, youth services, economic development and regional planning, banks/financial organizations, town government, restorative justice, substance misuse professionals, state agencies including Vermont Department of Health and Vermont Department of Human Services.

Health Equity and Resilience

We know not everyone has equal access to the circumstances, environment, or factors that promote and sustain health. There are conditions, or characteristics, that affect a person's ability to lead a healthy life and result in unequal health outcomes (health

Definition of Health Equity: Everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness, lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care. Robert Wood Johnson Foundation. Braveman P, Arkin E, Orleans T, et al. “What is Health Equity? And What Differences Does a Definition Make?”.

disparity). When we look at health and the delivery of health care through a health equity lens, we are more likely to reach all people who live in our region. (Vermont State Health Assessment 2018)

Table 4. Key Health Equity Indicators.

| | Caledonia | Essex | Vermont |
|---|---------------------------------|----------------------------------|---------------------------------|
| Median household income (in 2019 dollars) ¹ | \$50,563 | \$44,349 | \$61,973 |
| People in poverty (all) ¹ <ul style="list-style-type: none"> Single female head of household 18 – 64 years of age 65 and older | 12.6% 31.0% 13.0% 5.6% | 13.4% 23.7% 12.7% 10.0% | 10.9% 23.6% 11.3% 7.6% |
| Income inequality ⁵ (the higher the number the greater the division between the highest and lowest income in the region) | 4.2 | 4.1 | 4.5 |
| Unemployment rate December 2020 ² | 2.8% | 3.0% | 2.8% |
| Language spoken in home ¹ <ul style="list-style-type: none"> English only All others who speak English less than very well | 96.2% .6% | 94.2% 1.6% | 94.2% 1.5% |
| Sexual orientation/gender identity; LGBTQ + <ul style="list-style-type: none"> Adults (data for health district only)³ High School Teens⁷ | 6% 13% | 6% 8% | 9% 14% |
| People with any disabilities (data for health district only) ³ | 26% | | 24% |
| Access to healthcare ⁵ <ul style="list-style-type: none"> Uninsured Primary care providers Mental health providers Dentists | 5% 1260:1 270:1 1300:1 | 6% 6250:1 2050:1 2050:1 | 5% 890:1 210:1 1370:1 |
| High school graduation rate ⁵ | 91% | 87% | 93% |
| Food environmental index ⁵ (measures food insecurity and access) | 8.3 | 7.1 | 8.7 |
| Severe housing problems ⁵ | 15% | 16% | 17% |
| Households that spend more than 30% of their income on housing ⁴ (data by health service area) | 36% | | 37% |
| Households with a computer ¹ | 85.7% | 80.4% | 88.9% |
| Households with Internet broadband subscription ¹ | 75.6% | 70.9% | 80.2% |
| Environmental factors ⁵ <ul style="list-style-type: none"> Air pollution – particulate matter Drinking water violations | 5.0 No | 5.2 No | 5.4 |

1. U.S. Census Bureau; <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/>

2. Vermont Department of Labor, Economic, and Labor Market Information; <http://www.vtlmi.info/laus.pdf>

3. Behavioral Risk Factor Surveillance Survey; St Johnsbury District Profile.

https://www.healthvermont.gov/sites/default/files/documents/pdf/olh_profile_stjohnsbury.pdf

4. Agency of Human Services Community Profiles. http://humanservices.vermont.gov/ahs_community-profiles

5. County Health Rankings <https://www.countyhealthrankings.org/>

6. Youth Behavioral Risk Survey <https://www.healthvermont.gov/health-statistics-vital-records/population-health-surveys-data/youth-risk-behavior-survey-yrb>

Taking our lead from the Vermont Department of Health State Health Plan, 2018 (based on state-wide data and community member response) four broad groups were chosen for focus in terms of health equity:

- Race, ethnicity and culture
- LGBTQ + identity
- People living with disabilities
- Socioeconomic status

Regionally our numbers are small for both BIPOC (black, indigenous, people of color) Vermonters and people with LGBTQ + identity. At a state level, we know that white Vermonters are more likely to report having a usual primary care provider than BIPOC Vermonters. When asked by the Vermont Department of Health, BIPOC people living in Vermont said they do not see themselves represented in the health care and mental health care systems. (Vermont State Health Assessment, 2018).

Also at the state level, LGBTQ adults are less likely than heterosexual adults to see a primary care provider. They are more likely to report being depressed or have other mental health risk factors. They also report more intimate partner and sexual violence; and often report more risky health behaviors such as smoking or binge drinking. (Vermont State Health Assessment, 2018)

As a region, we are slightly higher than the state average for people living with disabilities. We know that people living with disabilities are more likely to have a chronic health condition. As a group, they often have less access to higher education and good paying jobs resulting in lower incomes. And they have less housing and transportation options. (Vermont State Health Assessment, 2018)

Socioeconomic status is more than just income, it is a factor of education and occupation. Socioeconomic status affects where people live, their occupations, the food they can access, the schools they attend, and how and where and if they connect socially. In

“With reduced school schedules, our family has had a difficult time finding temporary childcare, as a result one parent has had to reduce working hours to be home with children. Not having after school programs available has been very hard for our family.” Parent, Caledonia Central Supervisory Union survey

Vermont, people living below 250% of the Federal Poverty Level (about \$65,000 for a family of four) are more likely to report being in poor health and being depressed. (Vermont State Health Assessment, 2018).

Nationally and in Vermont, the adverse economic effects of the pandemic impacted women more than men. In the early months of the pandemic in 2020, 57% of the unemployment claims in Vermont were filed by women. There are systemic issues that make women more at risk for being in poverty and falling into poverty during economic hard times (like in a pandemic), including the pre-existing gender wage gap and the lack of affordable childcare. Women

Vermonters make up the majority of the essential workforce, including those working in healthcare and in professions that rely on tips. (COVID-19, Women, and Vermont’s Economic Recovery; COVID-19 Crisis and Vermont Women). In our region, the largest group in poverty is single female head of households. (US Census)

Any discussion on health equity and resilience in 2021 must include the effects of climate change on health. The Vermont Department of Health collects data that shows that Vermont is getting “warmer and wetter.” Over the last fifty years, our average temperatures and annual precipitation are increasing. In 2020, the meteorologists at the Fairbanks Museum recorded 15 days of temperatures 90 degrees or over. This is double our average.

Resilience is the ability to thrive, individually and collectively in the face of adversity. Vermont Resilience Messaging Guide.

People with chronic health conditions are more likely to suffer harmful health effects due to extreme weather events – such as high heat and humidity, high winds or flooding caused by rain storms – and poor outdoor air quality from transportation

emissions, industrial pollution, prolonged pollen seasons and wild fires.

While we hear on the news about wildfires on the west coast and hurricanes in the south, severe weather events also hit close to home. Tropical storm Irene in 2011 left almost a third of the state without electricity, hundreds with flooded homes, and forty people died.

The health consequences of poor air quality and extreme weather events include difficulty breathing; worsened cardio-vascular and respiratory disease; heat rashes, heat stroke, heat exhaustion; and diminished mental health and well-being. Flooding can leave behind dangerous mold and mildew and risk for contaminated water illness. Power outages from storms leave people at risk for poor nutrition or food poisoning, and with no way to safely store medications that need refrigeration. Shorter winters and earlier springs allow insects to flourish, resulting in more people at risk for illness carried by ticks and mosquitos.

The people with chronic conditions are not the only ones at risk for these health consequences. People with weakened immune systems due to health conditions such as cancer, older adults, children and infants, pregnant women, low-income people of all ages, those who are homeless or living in poor housing conditions, outdoor workers, racial and ethnic minorities, those socially isolated or living alone, and those with no air conditioning are also at risk.

Community Input

The 2021 NVRH CHNA focused on identifying what people were most concerned about during the pandemic, how they got their

We need to support smaller local businesses. Their contributions - as employers and providers of services and goods - especially in walkable downtown - are imperative to the overall livability of our communities, especially for lower income residents. NEK Prosper large group survey

information to stay safe, and if they knew to access services. So how did people in our region fare during the pandemic?

We asked and the results are summarized in Table 5. Additional information is included as an Appendix. Primary source data collection started in December 2020 and ended in February 2021.

Table 5. Primary source data for NVRH CHNA 2021

| Survey Tool | Date | # of People | Data Collector | Target Population | Main Themes/Concerns |
|----------------------|---------------|-------------|---|--|--|
| Intercept interviews | 12/18/20 | N=40 | Katie Bocchino, Deb Rousseau, Cheryl Chandler | Veggie Van Go participants | Fear of getting COVID, and the effects of social isolation for themselves and their families, including school age children. |
| Online survey | December 2020 | N=72 | Laural Ruggles | NVRH Corporators | Business and economic disruption due to COVID; health equity identified as a priority for NVRH and the region. |
| Paper survey | Jan-Feb 2021 | N=73 | NEK Council on Aging | Older adults | Health identified as the biggest concern during COVID. They kept busy with a variety of activities during COVID and most were able to stay in touch with families and friends. |
| Online survey | February 2021 | N=152 | Laural Ruggles | Parents in Caledonia Central Supervisory Union | Most reported that their family's basic needs were being met during COVID and they were not concerned about making up for free school meals at home. Mental and emotional health resources were mentioned most often as an area where they could use more information. |
| Online survey | February 2021 | N=17 | Laural Ruggles | Parents in St Johnsbury Supervisory Union | Almost 2/3 reported their basic needs were being met during COVID. Their biggest concern was food, followed by healthcare, mental health, and childcare (all tied for second). |
| Online survey | February 2021 | N=3 | Laural Ruggles | Lyndon Chamber Business Members | All 3 respondents reported "health" was their biggest concern for their employees during COVID. |
| Online Survey | February 2021 | N=49 | Laural Ruggles | St Johnsbury Property Managers | Most reported they did not access any COVID relief funds and did not need help as the region recovers from COVID; financial issues were identified as the main concern they had for their tenants. |
| Online Survey | February 2021 | N=12 | Laural Ruggles | EMS/Fire/Police | 2/3 reported health or healthcare services were their main concerns during the pandemic. |
| Online survey | January 2021 | N=12 | Laural Ruggles | NEK Prosper Large Group Members | 90% reported an increase demand for their services during COVID. 75% reported their organization participated in regional response teams during COVID and most of |

| | | | | | |
|---------------------|------------------|------|----------------|-----------------------|--|
| | | | | | those reported forming new partnerships during the pandemic. |
| Focus Group (WebEx) | January 27, 2021 | N=34 | Laural Ruggles | Community Health Team | Reported an increased need for their services; a concern about the health and well-being of their clients/patients; and their own health and well-being due to being on the front line of service delivery during COVID. |

Additional community input was gathered by and/or generated by *Experts with Special Knowledge* and is summarized in Table 6.

Table 6. Community Input from Experts with Special Knowledge

| | | | | | |
|------------------|---------------|-------|------------------------|-------------------------|---|
| Online Survey | 2020 | N=588 | Mentally Healthy CAN | Community wide | 2/3 reported that the pandemic has negatively impacted their mental health. 25% disagreed or strongly disagreed that people in their hometown are supportive of people with mental health problems; 50% neither agreed nor disagreed; 25% agreed or strongly agreed. |
| Online Survey | Fall 2020 | N=308 | Financially Secure CAN | Community wide | 42% of respondents said they seek support mostly for diet/nutrition fitness, followed by healthcare access (35%), financial stability (30%), employment (29%) and childcare (24%). |
| Community Forums | March 2021 | N=50 | Financially Secure CAN | Community wide | Participants identified lack of affordable housing, food insecurity, and transportation as challenges within the community that have been exacerbated by the pandemic. |
| Paper survey | January 2021 | N=21 | NEKCA | People housed in motels | 16 reported having a primary care provider; 15 reported seeing their provider in the last year. 13 have a mental health provider. |
| Online Survey | February 2021 | N=289 | Physically Healthy CAN | Community wide | 37% reported getting the recommended 150 minutes or more per week of physical activity. "Motivation" and "time" were the most reported barriers to being active. Almost 30% said concerns about COVID-19 or COVID-19 restrictions were barriers to being active. Only 3% said transportation was a barrier. |

Priority Criteria

The purpose of our community health needs assessment is to identify initiatives at the individual, community, environmental, and policy level, as well as programs and services that meet our mission to improve the health of people in the communities we serve.

Most importantly, we know we, as a hospital, cannot do this alone. The leading criterion for priority setting for our work is the ability to work with our community partners and capitalize on our many community resources and assets.

Over the next three years, NVRH will implement initiatives, and programs and services that work to meet the five outcomes we share with NEK Prosper (Figure 2) to improve health in the community, while intentionally addressing the underlying causes of health disparities.

Additionally, we will prioritize solutions that:

- Maximize the unique expertise and resources of NVRH
- Have the greatest impact on our most vulnerable populations
- Have results that are enhanced by working with our community partners
- Have potential for short term impact on community health
- Reduce the long-term cost of healthcare to the community
- Are tested/proven approaches to community health improvement
- Continue to be important to people who live in our communities

Figure 2. The five outcome areas for NVRH and NEK Prosper.



To learn about the strategies NVRH will implement in the next few years to meet the needs of the community, read our Community Health Needs Assessment Implementation Plan at www.nvrh.org.

Community Assets: Our Partners and Resources

| Healthcare and Complimentary Health |
|--|
| <ul style="list-style-type: none"> Northern Counties Health Care; Caledonia Home Health and Hospice and Federally Qualified Health Centers Emergency: CALEX Ambulance Service & Danville Rescue; Lyndon Rescue, Inc. Long Term Care: St. Johnsbury Health and Rehabilitation; The Pines: Canterbury Inn; private care providers Dentists Chiropractors Complimentary Therapy: massage; hypnosis; Reiki; acupuncture; |
| Human Services |
| <ul style="list-style-type: none"> Vermont Department of Health Vermont Department of Economic Services Vermont Vocational Rehabilitation Vermont Department of Corrections Northeast Kingdom Community Action NEKCA H.O.P.E Umbrella, Inc. Northeast Kingdom Youth Services Faith In Action St. Johnsbury Community Restorative Justice Vermont Legal Aid |
| Mental Health and Substance Misuse Disorders |
| <ul style="list-style-type: none"> Northeast Kingdom Human Services BAART Programs Kingdom Recovery Center Vermont CARES (needle exchange) DART NEK (drug abuse resistance team) Transitional Housing: Covered Bridge, Aries House Northeast Prevention Coalition Private therapists |
| Older Adults |
| <ul style="list-style-type: none"> Northeast Kingdom Council on Aging Riverside Life Enrichment Good Living Senior Center |
| Economic Development |
| <ul style="list-style-type: none"> Northern Community Investment Corporation NCIC Northeastern Vermont Development Association NVDA Northeast Kingdom Collaborative Banks: Passumpsic Savings Bank; Community National Bank; Union Bank Northeast Credit Union Green Mountain United Way |

| |
|---|
| <ul style="list-style-type: none"> • Chambers of Commerce and their Members ;NEK Chamber of Commerce; St. Johnsbury; Lyndon; Burke • Towns and Villages in the Service Area • Businesses; retail; food and lodging; manufacturing; logging; professional services; trade services |
| Schools |
| <ul style="list-style-type: none"> • Public schools: St. Johnsbury Supervisory Union; Caledonia Central Supervisory Union; Kingdom East Supervisory Union; Essex Caledonia Supervisory Union • St. Johnsbury Academy • Lyndon Institute • Burke Mountain Academy • Cornerstone and Arlington Schools • LEARN • Thaddeus Stevens School • Riverside School • Good Shepherd School • Caledonia Christian School • Colleges: Northern Vermont University; Springfield College; Community College of Vermont • Home school providers • Pre-school programs and centers (including childcare centers) |
| Food Cycle |
| <ul style="list-style-type: none"> • Vermont Food Bank • Farmers Markets: St. Johnsbury, Lyndon, Danville, Peacham, Burke • Food shelves: Kingdom Community Services; Neighbors Helping Neighbors; Sheffield Community; Faith in Action; HOPE • Center for Agriculture Economy • Local farmers • Local food producers • Northeast Kingdom Waste Management District and Town Recycling Centers • Local grocery stores and convenient stores • Local restaurants • Mustard Seed Soup Kitchen |
| Faith Based |
| <ul style="list-style-type: none"> • Churches • Beth El Synagogue • Karme Choling Shambhala Meditation Center • Milarepa Center |
| Housing |
| <ul style="list-style-type: none"> • RuralEdge • Habitat for Humanity • Transitional Housing: Covered Bridge, Aries House • Realtors • Private landlords |

| Arts and Humanities |
|--|
| <ul style="list-style-type: none"> • Catamount Arts • Fairbanks Museum • Libraries: St. Johnsbury Athenaeum; Cobleigh Library; Pope Memorial Library; Concord Public Library; West Burke Public Library; Peacham Library; East Burke Community Library • Historical: St. Johnsbury History and Heritage Center; Barnet Historical Society; Burke Historical Society; Concord Historical Society; Danville Historical Society; Lyndon Historical Society; Peacham Historical Society; Sheffield Historical Society; Ben's Mill • Kingdom County Productions • Burklyn Arts Council • Town Bands: St. Johnsbury, Danville, Lyndon • Northeast Kingdom Artisans Guild • Northeast Kingdom Classical Series • Vermont Children's Theater |
| Physically Activity |
| <ul style="list-style-type: none"> • Locally Operated Fitness Centers; Yoga; Pilates; Gymnastics and Dance; Martial Arts • Kingdom Trails • Burke Mountain • Lyndon Outing Club • Youth Sports Programs: Lyndon; St. Johnsbury • Powers Park • Kiwanis Pool and Tennis • Fenton Chester Ice Arena • Golf Courses: St. Johnsbury County Club; Kirby County Club • Lamoille Valley Rail Trail • Paths Around Lyndon • Caledonia Trail Collaborative • Town Forests • Parks and Playgrounds |
| Waterways for Recreation |
| <ul style="list-style-type: none"> • Lakes: Joe's Pond; Harvey's Lake; Shadow Lake – Concord • Rivers: Passumpsic; Moose; Connecticut • Ponds |
| Other Local or Regional Resources and Attractions |
| <ul style="list-style-type: none"> • Dog Mountain • Sugar Ridge Campground and Mini Golf • Corn Maze |
| Media |
| <ul style="list-style-type: none"> • The Caledonian Record • North Star Monthly • Northland Journal • Vermont Broadcasting Associates: WSTJ, WKHX, WGMT |

- The Point 95.7
- Kingdom Access TV

Appendix

List of Secondary Data Sources and Reports Accessed for this CHNA

[COVID Among BIPOC Vermonters](#)

[CDC Health Advisory: Increase in Fatal Drug Overdoses Across the US Driven by Synthetic Opioids Before and During COVID-19 Pandemic](#)

[Early Childhood Systems Needs Assessment 2020](#)
[Vermont Early Childhood Action Plan 2020](#)

[Vermont Housing Needs Assessment: 2020-2025](#)

[Needs Assessment of Vermonters Age 60+ and Their Family Caregivers](#)

[Climate Change & Health in Vermont](#)

[Assessing Health Vulnerability to Climate Change: A Guide for Health Departments](#)

[Hospitals Should Help Communities Prepare for Climate Change](#)

[Climate Change: A Playbook for Hospitals](#)

[Leveraging Hospital Community Benefits to Address Climate Change and Environmental Risks](#)

Vermont Tobacco Control Program FY2019 Annual Review

[Vermont State Tobacco Control Plan](#)

[American Hospital Association Environmental Scan 2021](#)

Hunger Briefing 2021: Vermont Foodbank and Hunger Free Vermont

[COVID-19 Impacts on Food Insecurity and Systems: A Third Survey of Vermonters](#)

[COVID 19 and Food Insecurity Impacts: A Follow Up Vermont Study](#)

Youth Behavior Risk Survey 2019

[Caledonia County](#)

[Essex County](#)

Vermont Parent Survey 2019

Caledonia County

Orleans and Essex County 2019

[Behavioral Risk Factor Surveillance Survey \(BRFSS\) St Johnsbury District March 2020](#)

[The Health of Vermonters Living with Disabilities 2018](#)

[Advancing Equity in the Nation's COVID-19 Public Health Response and Recovery Efforts,](#)
January 2021

[Investing in Health: A Federal Action Plan,](#) January 2021

[NEK Recovery Action Plan,](#) December 2020

[2021 Small Business Economic Outlook Survey](#)

[Medscape: Missed Visits During Pandemic Cause 'Detrimental Ripple Effects'](#)

[COVID-19, Women, and Vermont's Economic Recovery](#)

[The COVID-19 Crisis and Vermont Women](#)

[Symptoms of Anxiety or Depressive Disorder and Use of Mental Health Care Among Adults](#)
[During the COVID-19 Pandemic](#) — United States, August 2020–February 2021

[Virtual Youth Forum with Governor Phil Scott](#)

Health Indicators for the NVRH Hospital Service Area.

| Health Indicators for the NVRH Hospital Service Area | Indicator | Data Source | Hospital Service Area | Vermont |
|---|---|-----------------------------------|--------------------------------------|----------------|
| Access to Health Services | Percent of Vermonters with health insurance | American Community Survey | 93% | 94% |
| | Primary Care Provider FTEs per 100,000 Vermonters – Physicians (MD and DO) | Healthcare Workforce Census | 68 | 75 |
| | Mental Health professional FTEs per 100,000 | Healthcare Workforce Census | 198 | 342 |
| | Primary Care Provider FTEs per 100,000 Vermonters - Dentists | Healthcare Workforce Census | 34 | 38 |
| Mental Health and Substance Use | Percent of adults with a depressive disorder | BRFSS | 21% | 22% |
| | Percent of adolescents in grades 9-12 who made a suicide plan | YRBS | 11% | 12% |
| | Rate of suicide deaths per 100,000 Vermonters | Vital Statistics | 23 | 14 |
| | Percent of adults who smoke cigarettes | BRFSS | 19% | 18% |
| | Percent of adolescents in grades 9-12 who smoke cigarettes | YRBS | 17% | 11% |
| | Percent of adult smokers who attempted to quit smoking in the past year | BRFSS | 49% | 49% |
| | Percent of adults who binge drank in the last month | BRFSS | 14% | 18% |
| | Percent of adolescents in grades 9-12 binge drinking in the past 30 days | YRBS | 16% | 16% |
| | Percent of adolescents in grades 9-12 who used marijuana in the past 30 days | YRBS | 16% | 22% |
| | Rate of Opioid-related fatalities per 100,000 Vermonters (by county of residence at death) | Vital Statistics | 7 | 12 |
| Physical Activity, Nutrition and Obesity | Percent of adults age 20 and older who are obese | BRFSS | 31% | 28% |
| | Percent of adults age 20 and older who are overweight | BRFSS | 35% | 34% |
| | Percent of adolescents in grades 9-12 who are obese | YRBS | 12% | 12% |
| | Percent of children age 2-5 (in WIC) who are obese | WIC | 12% | 14% |
| | Percent of adults meeting aerobic physical activity guidelines | BRFSS | 52% | 59% |
| | Percent of adolescents in grades 9-12 meeting physical activity guidelines | YRBS | 21% | 23% |
| | Percent of adults who do NOT eat 5 fruits & vegetables per day | BRFSS | 82% | 80% |
| | Percent of adolescents in grades 9-12 who do NOT eat 5 fruits & vegetables per day | YRBS | 77% | 76% |

| | | | | |
|---|--|------------------|------|------|
| Immunizations | Percent of children age 19-35 months receiving recommended vaccines (4:3:1:4:3:1:4); | NIS/IMR | 67% | 76% |
| | Percent of adults age 65 and older who receive annual flu shot | BRFSS | 59% | 59% |
| | Percent of adults age 65 and older who ever had pneumococcal vaccine | BRFSS | 78% | 77% |
| Chronic Disease: Screening, Morbidity, Mortality and Associated Indicators | | | | |
| | Percent of adults with asthma | BRFSS | 11% | 11% |
| | Percent of adults with chronic obstructive pulmonary disease (COPD) | BRFSS | 6% | 6% |
| | Percent of female adults age 50-74 receiving breast cancer screening | BRFSS | 78% | 79% |
| | Incidence of breast cancer per 100,000 females | Cancer Registry | NA | 130% |
| | Percent of female adults age 21-65 receiving cervical cancer screening | BRFSS | 86% | 86% |
| | Percent of adults age 50-75 receiving colorectal cancer screening | BRFSS | 73% | 71% |
| | Incidence of colorectal cancer per 100,000 | Cancer Registry | NA | 36 |
| | Incidence of lung cancer per 100,000 | Cancer Registry | NA | 65 |
| | Percent of adults with hypertension | BRFSS | 28% | 25% |
| | Percent of adults with a cholesterol check in past 5 years | BRFSS | 70% | 76% |
| | Percent of adults with high cholesterol | BRFSS | 38% | 34% |
| | Percent of adults with cardiovascular disease | BRFSS | 9% | 8% |
| | Coronary heart disease death rate per 100,000 | Vital Statistics | 138 | 115 |
| | Stroke death rate per 100,000 | Vital Statistics | 24 | 36 |
| | Percent of adults tested for high blood sugar in last three years | BRFSS | 52% | 52% |
| | Percent of adults with diabetes | BRFSS | 9% | 8% |
| Quality of Life | Percent of adults whose health is fair or poor | BRFSS | 13% | 13% |
| | Percent of adults with poor physical health | BRFSS | 10% | 11% |
| | Percent of adults with poor mental health | BRFSS | 9% | 11% |
| | Percent of adults who rarely get emotional support ¹ | BRFSS | 7% | 8% |
| | Overall satisfaction with life (out of 5) ² | GNHUSA | 4.2* | 4.2 |

Source: Vermont Department of Health; <http://www.healthvermont.gov/ia/CHNA/HSA/atlas.html>

¹ Source: Vermont Department of Human Services, Community Profiles.

http://humanservices.vermont.gov/ahs_community-profiles

² Gross National Happiness USA; Report for Caledonia, Orleans, and Essex Counties in Vermont 2017

FTE = Full Time Equivalent

BRFSS = Behavioral Risk Factor Surveillance Survey

YRBS = Youth Risk Behavior Survey

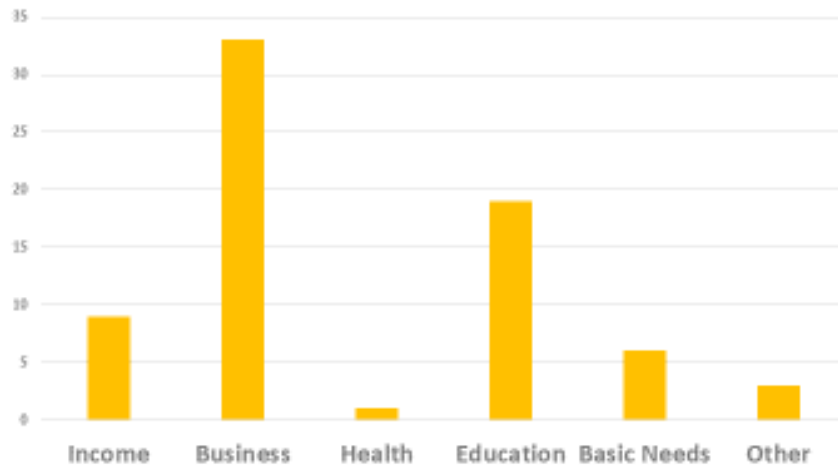
GNHUSA = Gross National Happiness Survey (*Caledonia only; 3.0 in Essex)

Supplemental Information from Community Input

NVRH Corporators Survey

Thinking about the people and the communities in the NEK, what has COVID19 impacted the most?

Answered: 71 Skipped: 1



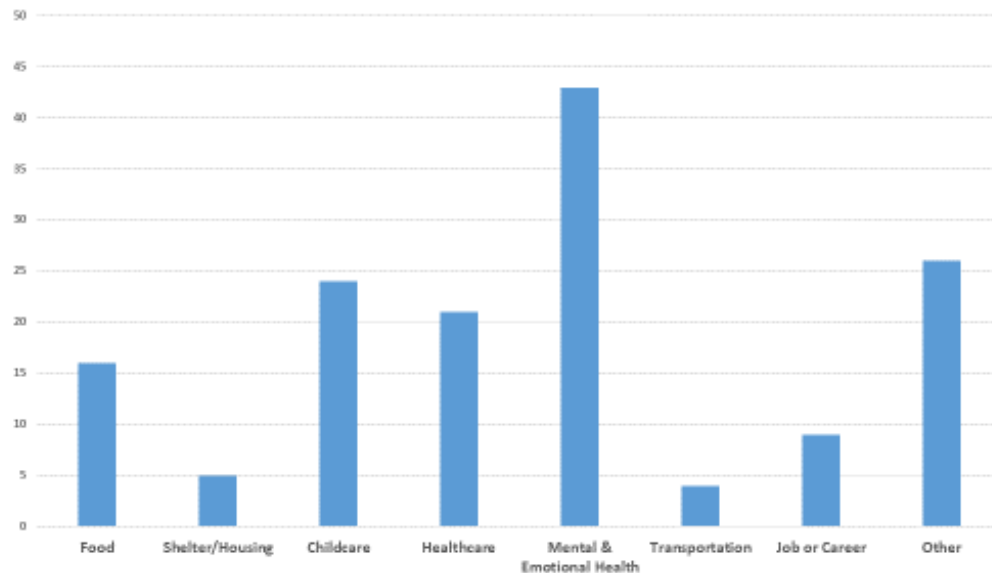
How has COVID19 changed these things for the people and communities in the NEK? Most said:

Answered: 72 Skipped: 0

| | Better | Same | Worse | Don't Know |
|------------------------------|--------|------|-------|------------|
| Availability of Income/Jobs | | | X | |
| Access to Medical Care | | X | | |
| Access to Mental Health Care | | | X | |
| Access to Food | | | X | |
| Access to Affordable Housing | | | X | |
| Access to Transportation | | X | | |

Caledonia Central Supervisory Union Parent Survey

For which area(s) could you use additional support or information about resources at this time? Please select all that apply. N = 110



Question #1 “Other”

- School tutoring for remote learning
- Better educational support for my children.
- Money
- Educational-My children have missed a great deal of academics and I am concerned about the impact, specifically on my child who will soon enter high school.
- Unemployment benefits
- Elder care
- None/Nothing (20 responses)

Caledonia Central Supervisory Union Parent Survey

Questions 2 - 4

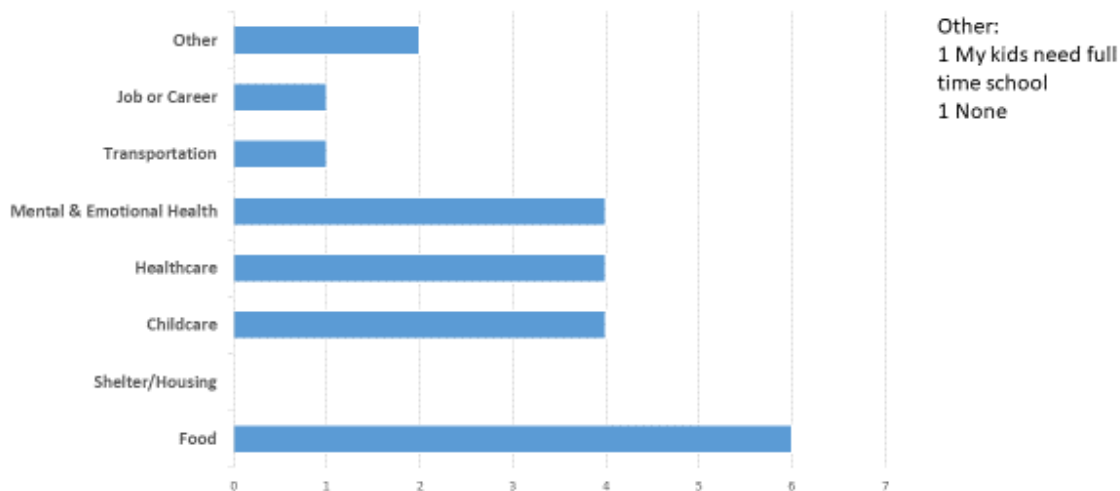
- 65% said they agree or strongly agree that they know what resources are available to help them.
- 61% said they asked for support when they needed it
- 95% said their family's basic needs are being met

Anything else you want us to know:

- I would love to have my children back in school full time with COVID protocols in place. The work my child is assigned on hybrid days does not meet what I feel is appropriate of a student in 7th grade.
- Concerned about making up for school time lost and learning setbacks
- With reduced school schedules, our family has had a difficult time finding temporary childcare, as a result one parent has had to reduce working hours to be home with children. Not having after school programs available has been very hard for our family.
- When will teachers be in line to get vaccinations?
- My family has been unaffected financially with Covid. We are all very much still employed and have no hardships. I know that is not the case for many right now.
- we love free lunches and we would be pretty crushed to lose these
- Thanks for thinking of people here. Gather the information and find a way to help. This is valuable
- Universal meals are essential for our schools
- Thank you for all your hard work!
- I believe there is a shortage of children's mental health providers in our area that are available for appointments
- Would like my kids back in school full time this is very very difficult for them.
- My son would've failed this year if it was remote learning. Thankgod it was switched to 4 days a week.
- Vaccination
- Lack money to pay bills
- I think that community outreach through schools is an excellent idea.
- No/Nothing (32 responses)

St Johnsbury School Parents Survey

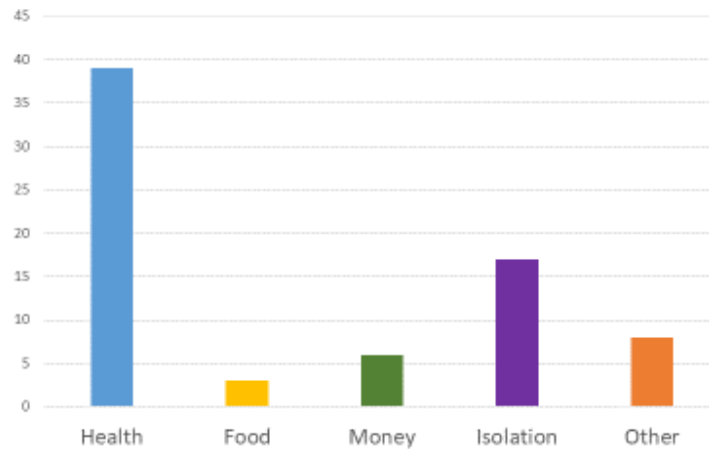
For which area(s) could you use additional support or information about resources at this time? Please select all that apply. N = 14



- Over half the respondents (9) said they know what resources are available to them. No one said they did not know what resources were available.
- 65% (11) said they asked for support when they needed it. 2 people reported they did not ask for support.
- 65% (11) said their family's basic needs are being met. 1 did not agree that their basic needs are not being met.
- **Other Comments:**
 - When can parents get Covid vaccine
 - We can not participate in the lunch program because we cannot access them, due to work and distance we can not easily pick them up.
 - None (3)

NEK Council on Aging Older Adults Survey

What was your biggest concern during COVID-19? Pick one only. N=73

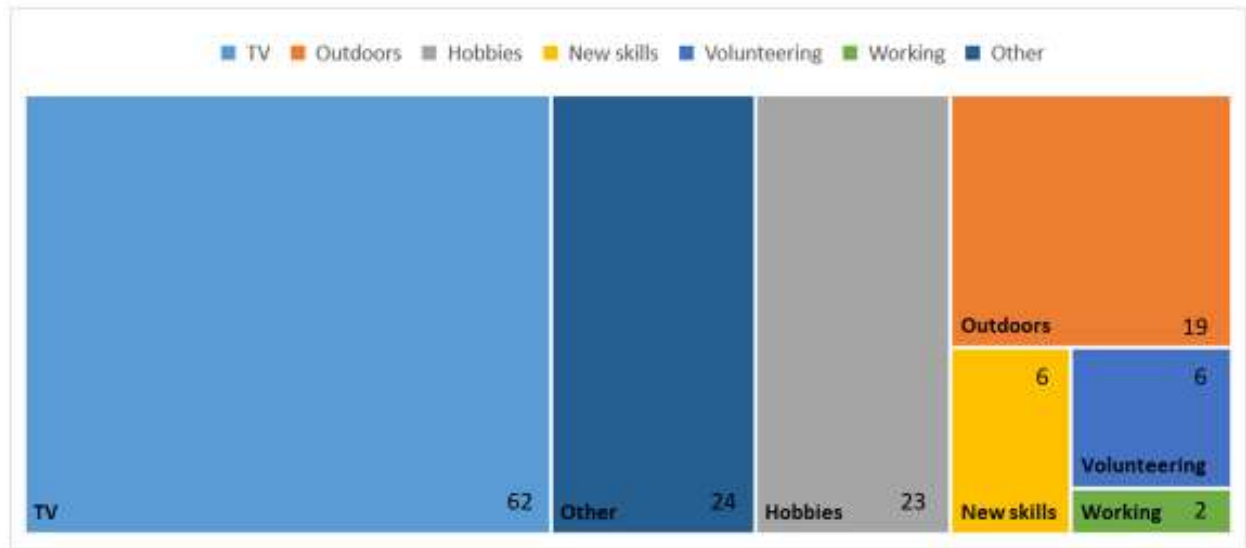


“Other” and Comments from Question 1

- All of the above (5)
- Misinformation and lack of critical thinking
- Restrictions on freedom
- Having to stay in. My family doesn't want me out & about, because my age!

NEK Council on Aging Older Adults Survey

How did you spend your time during COVID restrictions? Check all that apply. N=73

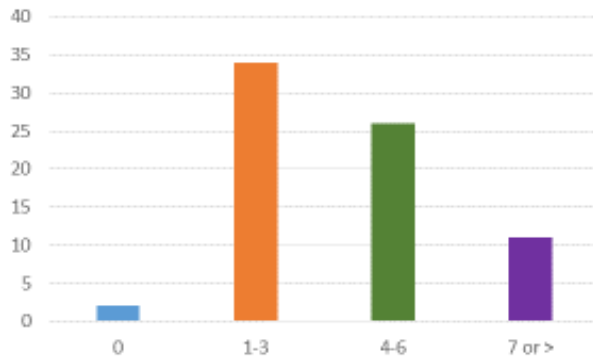


“Other” and Comments Question #2

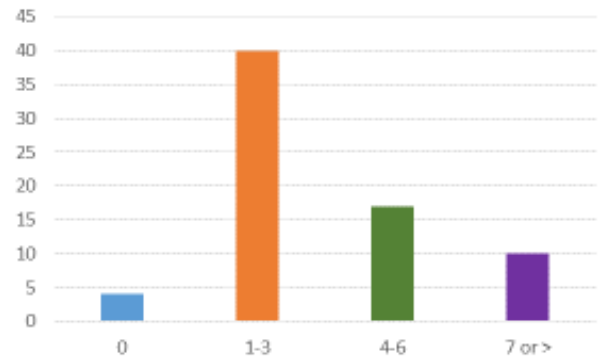
- Phoning friends
- Reading & Sleeping
- Going for rides/phone calls
- Reconnecting with old friends via phone.
- Reading, riding stationary bike & games on Ipad
- Kept busy doing house projects. Also talking to friends & relatives on the phone
- Reading
- Reading & Puzzles
- Stay in apartment-visited sister-daughter-did grocery shopping
- Keeping touch on internet
- Research
- Reading: books, magazines & newspapers
- Feeding & watching my birds & squirrels
- Calling shut ins/older people to break up their day! (& doing errands for them)
- Reading
- Knitting/crocheting and baking
- Cooking, cleaning and sewing
- Building and storage building - plowing snow
- Puzzles, piano, crosswords, knitting, crafts & newspaper puzzles
- Reading & Housework!
- Organizing and Cleaning
- Writing letters, reading and phone
- Dog walking 3-4 x day
- Working on my cars & trucks

NEK Council on Aging Older Adults Survey

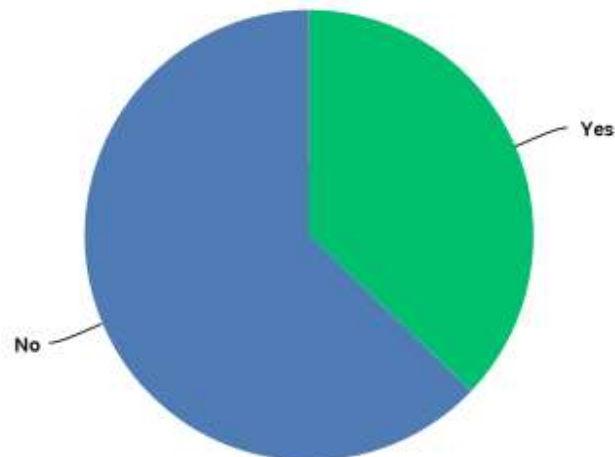
How many relatives or friends do you see or hear from at least once a month? N=73



How many relatives or friends do you feel close to such that you can call on them for help? N=71

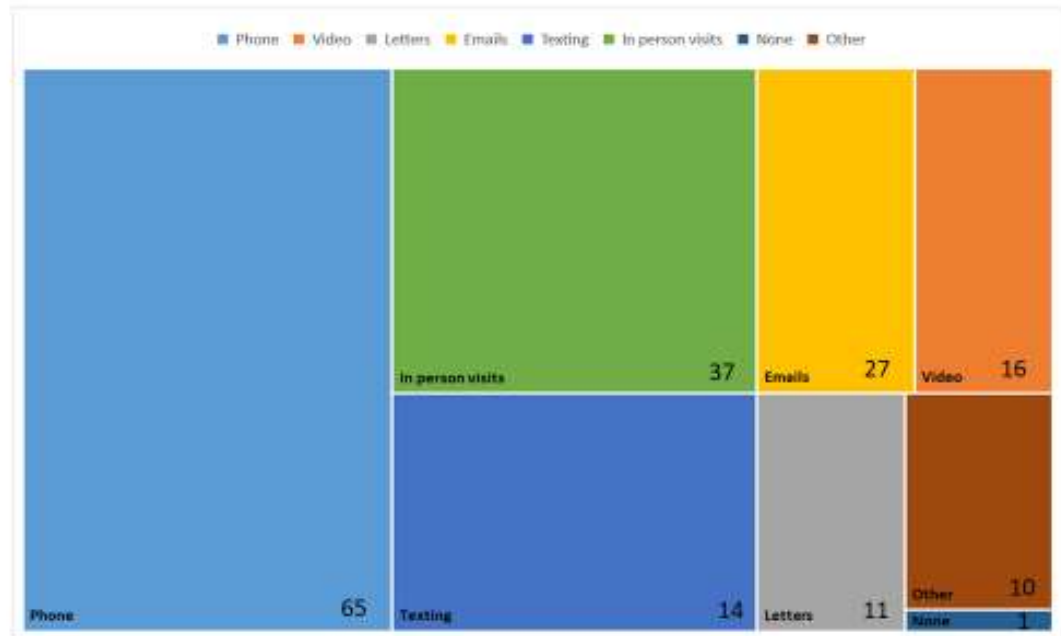


Do you like to participate in leisure activities in your town, church, or senior center? N=70



NEK Council on Aging Older Adults Survey

How did you stay in touch with relatives or friends during COVID-19? Check all that apply. N=70



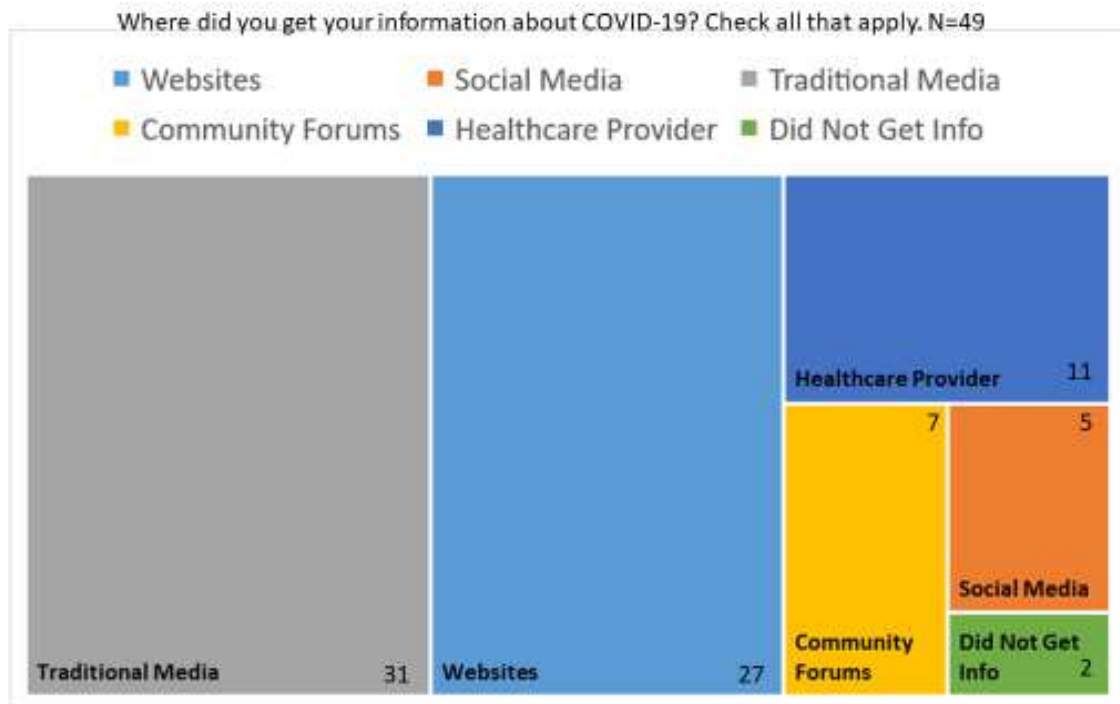
Other and Comments Question #6

- With my pain and depression I really look forward to your meals. Thank you all for your hard work. I might have dementia. I am only 55 will know after one more test.
- We do not have internet or a smart phone!
- I see my daughter everyday, she is my care giver.
- Visits
- I'm computer illiterate
- Send Cards
- Thank you for all you do it makes a lot of difference for me.
- Facebook (3)

Veggie Van Go Intercept Interviews Word Cloud



St Johnsbury Property Managers Survey

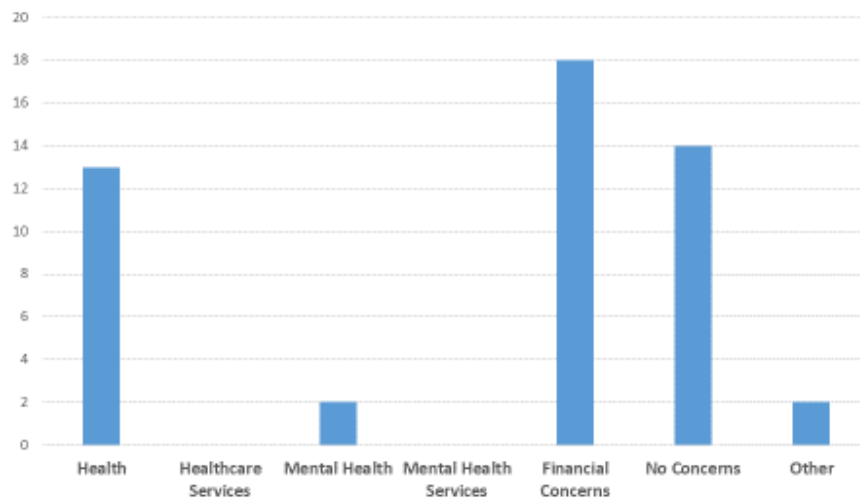


Highlights from the Survey

- Only 6.25% of respondents (3 out of 48) said it was difficult to get information about COVID-19 to keep their tenants safe.
- 11% reported that it was difficult to get PPE to keep staff and tenants safe. The rest found it easy or very easy or did not use PPE.
- 84% did not access any COVID relief funding e.g. PPP, EIDL, SBA Loans.
 - 6 people reported that their tenants accessed rental relief funds
 - 1 person said they accessed VT Housing Authority funding

St Johnsbury Property Managers Survey

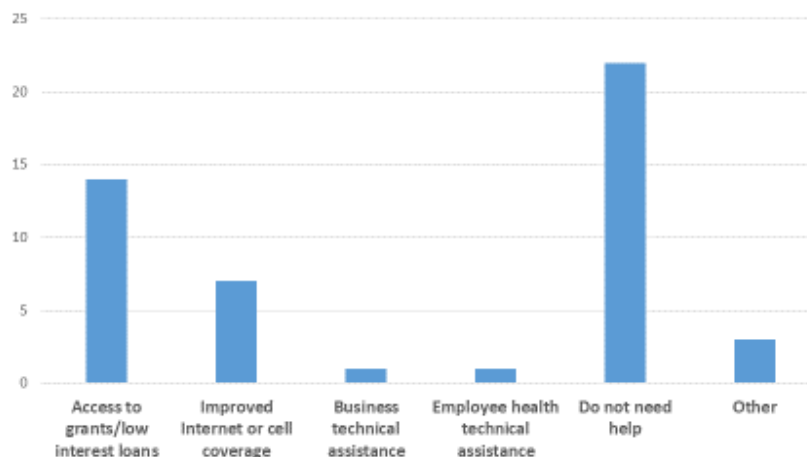
Due to COVID-19, what is your main concern for you tenants? N=49



"Other" Comments:

1. We know our tenant to be financially stable and capable of obtaining and understanding information related to the pandemic; therefore, we had no concerns.
2. My tenant is a health care worker, though vaccinated.

In the coming months and years, what would be the most helpful to your property management business as our region recovers from the pandemic? Check one only. N=48



"Other" Comments:

1. Investment by the town, with help from State, in public spaces for recreation and exercise that allows social distancing. This would support the community as a whole, including the value of out rental property in town.
2. In the event that some property modifications become advisable to protect against problems in the future, we would like to have access to low interest loans, especially if the work needed to be done quickly.
3. Free grant money to update property

EMS, Fire, and Police Survey

As a community, what is one thing we can do to bounce back from the pandemic?

- Help and support each other so we can all get through this together as safe and healthy as possible
- Return to normalcy as soon as humanly possible.
- Keep informed and have all necessary PPE available for employees and families
- I'd say keep taking care of each other!
- Education and vaccinations
- Open things back up
- Follow the guidelines as proposed/mandate all to get vaccines
- Stop making such a big deal about it and get back to normal.
- Continue to practice mask, distance and quarantine protocols along with an aggressive vaccination campaign
- Try to bring businesses to the area in an effort to provide economic opportunities that do not involve illegal activities.
- Follow the guidelines, get public back to work
- Support the local economy as it begins to return to normal operating practices and continue exercising safe behaviors such as masks and social distancing. I also feel that businesses and government agencies should continue the cleaning practices that have become standard during the epidemic as it will create a safer environment for customers and employees, although perhaps not to the same degree that Covid has brought it to.

Summary of Results N=12

- 75% reported they did not participate in regional community response teams during the pandemic. 25% (3) reported that they formed new partnerships as a result of the pandemic.
- 5 reported no change in the demand for their services; 4 reported an increase; 3 reported a decrease.
- No one reported it was difficult to get information to keep safe during the pandemic.
- 28% (2) reported it was difficult to get PPE
- "Health" was their main concern during COVID-19.