

## 2022 Community Health Needs Assessment

Adopted by the Baystate Health Board  
of Trustees on September 13, 2022



Kamp for Kids  
An inclusive summer camp in Westfield,  
Massachusetts  
Photo Credit: Behavioral Health Network

# Table of Contents

<b>1. Executive Summary .....</b>	<b>5</b>
Background .....	5
Guiding Values and Assessment Methods.....	6
Prioritized Health Needs .....	7
COVID-19 .....	7
Youth Mental Health .....	8
Mental Health and Substance Use Disorder.....	9
Access to and Availability of Providers .....	9
Lack of Resources to Meet Basic Needs.....	10
Other Prioritized Health Needs .....	11
Priority Populations.....	12
Summary .....	13
<b>2. Introduction .....</b>	<b>15</b>
About the Hospital.....	15
Communities Served by Hospital.....	16
About the Coalition of Western Massachusetts Hospitals/Insurer .....	18
Summary of the Previous CHNA .....	23
<b>3. Setting Context.....</b>	<b>25</b>
Coalition Guiding Principles for 2022 CHNA .....	25
Orientation to this Report .....	28
STRIVE Project.....	31
<b>4. Methodology .....</b>	<b>33</b>
Assessment Process and Methods.....	33
Prioritization Process .....	34
Limitations and Data Gaps.....	34
Language Used to Describe Demographic Groups.....	35
<b>5. Impact of COVID-19 in Our Community .....</b>	<b>37</b>
Overview.....	37

COVID-19 in Our Region and Communities Served.....	38
Other COVID-19-related Impacts and Inequities.....	42
Assets and Resources .....	46
<b>6. Prioritized Health Needs.....</b>	<b>49</b>
6a. Regional Focus Area: Youth Mental Health.....	49
6b. Deeper Dive: Mental Health and Substance Use .....	62
6c. Deeper Dive: Access to and Availability of Providers, and Other Care Barriers .....	70
6c. Deeper Dive: Access to Basic Needs .....	86
6d. Other Prioritized Health Needs.....	97
<b>7. Priority Populations .....</b>	<b>115</b>
<b>8. Actions Taken by Baystate Noble.....</b>	<b>118</b>
<b>9. Resources .....</b>	<b>128</b>
Community Resources.....	129
Hospital Resources.....	134
<b>10. Appendices.....</b>	<b>137</b>
Appendix 1: Additional Demographics.....	137
Appendix 2. Community Members and Partners Engaged in the 2022 CHNA Process .....	141
Appendix 3. Glossary of Terms.....	149
Appendix 4. Community Input Received .....	155
Appendix 5. Supplemental Data.....	195
<b>11. References .....</b>	<b>202</b>

BAYSTATE NOBLE HOSPITAL

# 1. Executive Summary

2022 COMMUNITY HEALTH NEEDS ASSESSMENT

# 1. Executive Summary

## Background

**Baystate Noble Hospital** (Baystate Noble) is an 85-bed acute care community hospital providing a broad range of services to the greater Westfield community, offering direct access to world-class technology, diagnostics, and specialists. The hospital works to ensure that patients have access to exceptional health care, close to home. Skilled and compassionate nurses and medical support staff offer an ideal combination of “high tech” and “high touch,” complementing an outstanding team of doctors. Services include obstetrics and gynecology, emergency, laboratory, gastroenterology, surgery, cardiopulmonary services and rehabilitation, cancer care, behavioral health, urology, neurology, inpatient rehabilitation, and diagnostic imaging, including 3D mammography.

Baystate Noble is a member of **Baystate Health**, a not-for-profit, multi-institutional, integrated health care organization serving more than 800,000 people throughout western Massachusetts. Baystate Health, with a workforce of 13,000 employees, is the largest employer in the region and includes Baystate Medical Center, Baystate Franklin Medical Center, Baystate Wing Hospital, Baystate Noble Hospital, Baystate Medical Practices, Baystate Home Health, and Baystate Health Foundation.

Baystate Noble is a member of the **Coalition of Western Massachusetts Hospitals/Insurer** (Coalition), a partnership formed in 2012 that currently consists of nine non-profit hospitals, clinics, and insurers in the region to coordinate resources and activities for conducting their Community Health Needs Assessment (CHNA). The federal Patient Protection and Affordable Care Act (PPACA) requires tax-exempt hospitals and insurers to conduct a CHNA every three years. Based on the findings of the CHNA and as required by the law, each hospital develops a health improvement plan to address select prioritized needs. The CHNA data also inform County Health Improvement Plans (CHIPs) as well as other community-based initiatives to achieve health equity. The Coalition collaborated with a consultant team led by the **Public Health Institute of Western Massachusetts** (PHIWM) to conduct the CHNA. This assessment focused on Hampden County data, where ten of eleven the communities served by Baystate Noble are located, and Westfield and West Springfield data as available.

## Guiding Values and Assessment Methods

The Coalition and consultant team fostered an inclusive process to assess health needs. A **Regional Advisory Council** (RAC) was assembled and met monthly for a year and a half to provide guidance and to make decisions that informed the assessment process and the prioritization of health needs. The Coalition members recognize that health equity cannot be achieved unless or until the root causes of inequity are addressed. These root causes include systemic racism and structural poverty, as well as other forms of discrimination. Underlying these root causes are the dominant culture and stories that normalize the perpetuation of inequities. To make meaningful progress to address these root causes of poor health, the Coalition and RAC worked to further incorporate aspects of these values into the CHNA process: community-led change, anti-racism, cultural humility, and social justice.

The 2022 CHNA updates the prioritized community health needs identified in the 2016 and 2019 reports, as they relate to: the social and economic factors or “determinants” that influence health, barriers to health care access, and health behaviors and outcomes. The 2022 CHNA assessment process included reprioritizing needs if data—including community feedback—indicated changes. The process consisted of a review of existing assessment reports; survey of public health officials; preliminary analysis of COVID-19’s impact on the region; and analysis of quantitative data, with efforts where possible to disaggregate (eg, by race, ethnicity, age, LGBTQIA+ identity, or geography) to understand health disparities. The consultant team also assembled qualitative data from community “chats,” key informant interviews, and focus groups conducted throughout the communities served by Baystate Noble and region. The interviews and focus groups were primarily about youth mental health.

During the process, the Coalition and RAC made the decision to (1) assess the impact of COVID-19 on health needs in the region, and (2) lift the prioritized need of youth mental health as a regional focus area for added data gathering. Further, Baystate Noble undertook its own prioritization process and chose three of the identified prioritized needs for a deeper dive and added data gathering: Lack of Resources to Meet Basic Needs; Access to and Availability of Providers; and Mental Health and Substance Use Disorder. Baystate Noble chose to place greatest focus on inequities among youth, older adults, and immigrant and refugee populations, as they may face unique health challenges and often experience disparate outcomes.

## Prioritized Health Needs

The communities served by Baystate Noble continues to experience many of the same prioritized health needs identified in Baystate Noble's 2019 CHNA. The COVID-19 pandemic worsened many of the existing inequities related to these needs. Several prioritized needs receive deeper focus as described below. The prioritized health needs for communities served by Baystate Noble are:

- **Social and Economic Factors or “Determinants” that Influence Health:**
  - **Access to Basic Needs (Baystate Noble focus area– deeper dive)**
  - Need for Financial Health
  - Educational Attainment
  - Employment and Income
  - Violence and Trauma
  - Environmental Exposures and Climate Crisis
- **Barriers to Health Care Access:**
  - **Access to and Availability of Providers (Baystate Noble focus area– deeper dive)**
  - Other Barriers
- **Health Behaviors and Outcomes:**
  - **Youth Mental Health (Regional Focus Area – deeper data dive)**
  - **Mental Health and Substance Use (Baystate Noble focus area – deeper dive)**
  - Chronic Conditions and Other Health Outcomes

## COVID-19

It has been three years since the last community health needs assessment, and for two of those years and counting, our nation and region have battled a once-in-a-century health pandemic. COVID-19 has taken a tremendous toll on this communities served by Baystate Noble, and it continues to affect the status of health in western Massachusetts. The pandemic took the lives of at least 338 residents in the communities served by Baystate Noble, and more than 28,000 people were infected (see Table 1). It strained the ability of the regional health care system, from the doctor's office to the emergency room, causing many people to have to delay care and treatment. Hampden County had lower

vaccination rates than other western Massachusetts counties. Barriers to vaccine access and vaccine hesitancy were factors.

In addition to affecting health outcomes, access to care, and quality of care, the pandemic undermined the region's economy, causing unemployment rates to rise rapidly and business revenues to fall. Hampden County's unemployment rate shot up to 18% in April 2020. Economic destabilization negatively affected other social factors, or determinants, of health, including housing affordability, food security, education quality, and safety from violence and trauma. It worsened existing inequities in many of these prioritized needs, especially for Black and Latino/a/e residents, people who are unhoused, LGBTQIA+ individuals, people with a disability, older adults, immigrants, and refugees, those with limited incomes, and other communities. The Massachusetts public health infrastructure, which is highly decentralized, had difficulties providing consistent pandemic response services such as contact tracing and vaccination clinics. The pandemic also took a toll on residents, from youth to older adults.

Despite these challenges, many hospitals, health care providers, public health departments, grant makers, and non-profit agencies rose to the challenge, adapting and pivoting to provide resources, services, care, and prompt, accurate information to residents in the communities served by Baystate Noble.

## Youth Mental Health

The COVID-19 pandemic exacerbated mental health as a prioritized health need for youth and young adults in communities served by Baystate Noble, and across the region. The mental health challenges of youth and young adults (age 12–24) are acute. For example, almost half of students in grades 8, 10, and 12 (49%) surveyed in the Gateway school district (serving Huntington, Russell, Blandford, Chester, Montgomery, Middlefield, and Worthington) felt sad or depressed more often during the COVID-19 pandemic. Additionally, more than half (55%) of 8th, 10th, and 12th grade students in West Springfield reported feeling worried, nervous, anxious, or unable to relax, which was affected by COVID-19. Key informant interviews with providers revealed an overwhelming sense that the larger systems are failing youth, families, and providers and, as a result, the pandemic resulted in youth mental health and well-being worsening overall.

Positive signs are that providers see a rise in youth who show high social emotional intelligence, form relationships with like-minded youth, and can interpret personal, political, and social experiences with complex perspectives, often with language or lenses

they learn via social media. Several factors continue to affect youth mental health and access to care, including individual and systemic racism; continued stigma among many parents and some youth; provider shortages; and lack of cohesive and culturally competent mental health services. Proven prevention strategies such as organized sports, afterschool programs, youth drop-in centers, and other extracurricular activities need to be revitalized, expanded post-pandemic, and made more affordable and accessible.

## Mental Health and Substance Use Disorder

Before COVID-19 arrived, some communities in the communities served by Baystate Noble saw a rise in opioid deaths; Westfield saw a decline, and Palmer and West Springfield held steady after 2018. More than two in five respondents of the COVID-19 Community Impact Survey (CCIS) from the Noble communities served by Baystate Noble reported increasing their substance use in the prior month compared to before the pandemic onset. Deaths of despair (due to suicide, drug overdose, and alcohol-related disease) disproportionately affected Latino/a/e residents. Then, COVID-19 undermined mental health well-being for everyone. The systems of behavioral health care, which were already found to be insufficient in the 2019 CHNA, could not manage the increased demands.

Available data for immigrants and refugees is sparse, although it is likely that this population was heavily affected by the pandemic due to many serving as essential workers, the potential for displacement-related mental health concerns, and a lack of governmental support to meet basic needs. Older adults also experienced increased mental health challenges, citing isolation as a primary driver. Social distancing due to the pandemic resulted in older adults feeling a lack of companionship, as they are identified as higher risk for infection and therefore recommended isolating themselves from others. Although some used social media and technology to bridge the gap between themselves and others, some older adults did not have the skills, devices, or desire to engage in this way.

## Access to and Availability of Providers

Many of the barriers that residents in the communities served by Baystate Noble faced in accessing health care in 2016 and 2019 are still prioritized needs in 2022. The pandemic created more workforce shortages in the health care sector, worsening existing provider access challenges for the entire communities served by Baystate Noble. The pandemic significantly affected the mental health of health care professionals and contributed to

more profound burnout. In a regional survey of health officials, 35% of Hampden County respondents cited the limited availability of providers as the most pressing health issue facing their community. This is especially true for areas of high need, such as mental health. One in five Noble communities served by Baystate Noble respondents to the MDPH COVID-19 Community Impact Survey (CCIS) that sought health care during the pandemic reported not receiving care due to COVID-19-related barriers.

Residents with limited incomes, rural residents, Black and Latino/a/e residents, LGBTQIA+ individuals, those with a disability, and others often face added barriers that can further limit access to providers. These may include unaffordable, out-of-pocket health care costs, unconscious bias among providers, reliable and affordable transportation, and lack of access to care that is culturally and linguistically appropriate. Telehealth has mostly been a positive development in access to care. However, some populations face barriers to using the internet and other technology, such as residents with limited means, immigrants, those living in rural communities, and older adults. Older adult focus group participants reported having trouble paying for care during the pandemic because they were uncomfortable with online banking and did not have debit or credit cards, which became the primary modes of payment with the shift away from cash and checks. Refugees may also face barriers to accessing care because of limited, and sometimes temporary, health care coverage.

## Lack of Resources to Meet Basic Needs

Access to and affordability of basic needs such as housing, food, and transportation are key building blocks of health, and they continue to be a prioritized need for many residents in both urban and rural communities in the Noble communities served by Baystate Noble. People with limited resources are forced to make trade-offs and to prioritize their needs. Older adults who took part in a focus group reported spacing out necessary medical appointments so they could afford to feed themselves. The Noble communities served by Baystate Noble also continues to have food deserts (lack of nearby grocery stores), limiting access to affordable, healthy choices such as fruits and vegetables.

COVID-19 caused high rates of unemployment, further undermining the ability of residents to meet their monthly expenses. It also triggered inflation, raising the cost of many basic needs. In 2021, home prices in Hampden County rose almost 14% from the previous year. Half of CCIS respondents in the Noble communities served by Baystate Noble were worried about paying at least one of their upcoming expenses when the survey was

administered early in the pandemic. The pandemic also affected access to food—food insecurity in Hampden County jumped 42% from 2019 to 2020. Beginning in March 2020, The Food Bank of Western Massachusetts played a key role, distributing on average 877,000 meals per month to 91,000 clients, peaking at 1.1 million meals in October 2020. People who do not have access to transportation have an even harder time meeting basic needs. Census data show that consistently 14% of Hampden County residents do not have access to a vehicle. Since the 2013 CHNA, transportation continues to be one of the largest barriers to medical care. Telehealth offers a potential solution to that barrier for some residents, depending on the type of care they need.

## Other Prioritized Health Needs

We continue to see inequities in social and economic factors that affect health, resulting in the prioritization of employment and income, violence and trauma, environmental exposures and climate change, chronic health conditions such as Alzheimer's disease and asthma, and more. Since the 2019 CHNA, overall educational attainment in Hampden County is still relatively unchanged, and 91% of residents in the communities served by Baystate Noble graduated high school (equal to the statewide rate). In both Westfield and Springfield, Latino/a/e residents had unemployment rates double that of their White counterparts, while Black and Latino/a/e households had lower incomes than White households. The pandemic affected violence and trauma in ways yet to be understood fully, but people at risk of intimate partner violence or child abuse were more unsafe during the lockdown and shift to remote work and school. Being at home full time also has implications for residents in homes that have elevated lead levels and allergens that contribute to asthma—two conditions that are already at higher levels in the largest cities in the communities served by Baystate Noble. Five of the communities served by Baystate Noble municipalities have environmental justice designations, showing populations who experience disproportionate exposure to environmental hazards. Regarding barriers to care, access to health insurance, affordability of care, and lack of care coordination continue to be a problem. Chronic health conditions are still prioritized needs, especially asthma; hospital admissions rose among Black asthma sufferers compared to other groups. Chronic Obstructive Pulmonary Disease (COPD), cardiovascular disease, and other chronic conditions that are also a risk factor for heart disease—such as diabetes and obesity—also show disparities, with much higher rates among Black residents. Another chronic condition, Alzheimer's disease appears to have been affected by COVID-19, with the CDC reporting that there were 16% more deaths from this and other forms of dementia in 2020 compared to the prior five-year average. The communities served by Baystate Noble saw hospitalization rates for Alzheimer's-related concerns at a rate of nine per

100,000 residents. Moreover, those living in congregate care facilities were at elevated risk for COVID-19 infection and death. The infant mortality rate for Hampden County is 30% higher than the statewide average. Sexually transmitted diseases have been on the rise in the state, and the communities served by Baystate Noble has higher rates of gonorrhea and chlamydia per 100,000 residents than the statewide rate.

## Priority Populations

Baystate Noble Hospital is especially interested in the health needs of older adults and youth because available data show that these subsets experience disproportionately high rates of some health conditions or associated morbidities when compared to that of the general population in the communities served by Baystate Noble. Children experience mental health challenges differently, often relying on adults in their lives for support and to connect them to resources. In addition, their illness may affect a caregiver's employment and wages. Youth also depend on their parents or caregivers for most things, making them a particularly susceptible population. Youth under eighteen represent 19% of people in the communities served by Baystate Noble. On the other hand, older adults often live on limited incomes, have higher rates of chronic disease, and have more limited transportation options. Between 2010 and 2019, Hampden County's share of the population 65 years and older increased by 23% and older adults make up 18% of the Noble communities served by Baystate Noble population.

Immigrants and refugees are also a priority population, but available data broken down by immigration status is sparse. Twenty-four percent of refugees who resettled in Massachusetts did so in the western part of the state in 2020. Undocumented immigrants are unable to access many government-funded resources despite being affected by loss of permanent housing, food insecurity, unemployment, and the associated possibility of being uninsured. Foreign-born residents may also face language barriers and diminished feelings of safety due to the racism that some politicians unleashed related to the pandemic or overt xenophobia.

The COVID-19 pandemic also worsened existing inequities. The disparate rates of infection and death in Hampden and Hampshire counties, and national trends, show that older adults suffered higher rates of both infection and death. Based on national studies, the shift to remote schooling disproportionately harmed women of color and caused disruptions in education for youth. Unhoused children who previously received free or low-cost meals through school may have had to overcome barriers to access them during the pandemic as well. The pandemic also had significant effects on mental health. LGBTQIA+

youth, youth with disabilities, and older adults experienced high rates of depression and anxiety during COVID-19 compared to other groups.

## Summary

Prior to COVID-19, many of the socioeconomic conditions in the communities served by Baystate Noble had not changed much since the 2019 CHNA. As this report describes, income, housing, food security, and many other conditions worsened during the pandemic. COVID-19 caused immense suffering for many residents, who faced dire health outcomes and financial hardship. One of the county's leading economic engines—health care services—was severely affected with impacts on its workforce and subsequent availability of providers for residents. The shortage of behavioral health providers exacerbated the mental health crisis faced by young people in the community. Virtually every prioritized health need was affected by the pandemic, and people with one or more marginalized identities often felt the compounding effects. Disparities in chronic disease outcomes for people of color persisted. In sum, for so many facets of health and health care, COVID-19 deepened inequities.

## 2. Introduction

## 2. Introduction

### About the Hospital

**Baystate Noble Hospital** (Baystate Noble) located in Westfield, Massachusetts, is an 85-bed acute care community hospital helping people in the greater Westfield community. Baystate Noble is a member of Baystate Health, a not-for-profit, multi-institutional, integrated health care organization serving more than 800,000 people throughout western Massachusetts. Baystate Health, with a workforce of 13,000 employees, is the largest employer in the region and includes Baystate Medical Center, Baystate Franklin Medical Center, Baystate Wing Hospital, Baystate Noble Hospital, Baystate Medical Practices, Baystate Home Health, and Baystate Health Foundation.

Baystate Noble has more than 450 employees, including 210 nurses and 250 affiliated physicians on active and courtesy staff. Baystate Noble offers direct access to world-class technology, diagnostics, and specialists, working to ensure that patients have access to exceptional health care, close to home. Baystate Noble sees 28,000 Emergency Department visits annually and admits 2,600 patients. Skilled and compassionate nurses and medical support staff offer an ideal combination of “high tech” and “high touch,” complementing an outstanding team of doctors. Services include obstetrics and gynecology, emergency, laboratory, gastroenterology, surgery, cardiopulmonary services and rehabilitation, cancer care, behavioral health, urology, neurology, inpatient rehabilitation, and diagnostic imaging, including 3D mammography.

**Mission:** To improve the health of the people in our communities every day with quality and compassion.

**Community Benefits Mission Statement:** To reduce health disparities, promote community wellness, and improve access to care for priority populations.



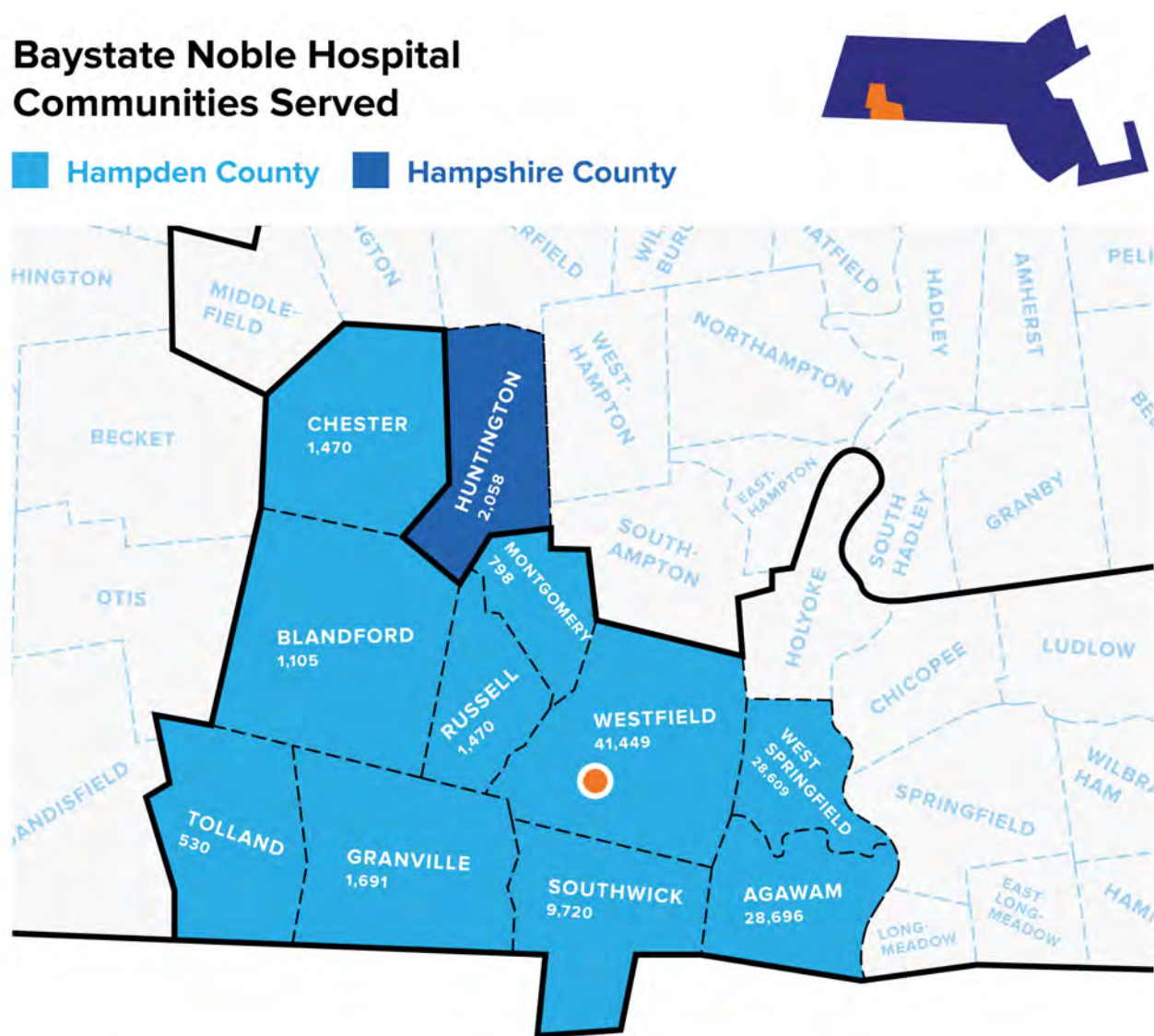
## Communities Served by Hospital

The communities served by Baystate Noble includes eleven communities, ten of which are in the western part of Hampden County, with most of this population living in the cities of West Springfield and Westfield (Figure 1). There is a mix of rural and urban populations, and the communities served includes part of the Hilltowns rural cluster (Appendix 1, Figure 29). The U.S. Census defines urban areas as consisting of census tracts and/or blocks which meet the minimum population density requirement (2,500–49,999 for urban clusters and over 50,000 for urbanized areas) or are adjacent and meet additional criteria. Eighty-two percent of the population lives in urban areas<sup>1</sup>, and the median age of residents in the communities served by Baystate Noble is approximately 42 years.<sup>2</sup>

According to Census estimates, the communities served by Baystate Noble has the same racial and ethnic diversity since the last CHNA. The region is 86% White, 8% Latino/a/e, 2% Black, and 5% some other race (Appendix 1, Table 4). More than 200 residents in the Baystate Noble communities identify as American Indian and Alaska Native alone.<sup>3</sup> The proportion of foreign born residents in the area is close to 10%, half the statewide proportion, and 85% of foreign-born residents were born in Europe or Asia.<sup>4</sup> The

population has a median family income of \$85,255, about 15% lower than that of the state (\$103,126)<sup>5</sup>, and 8% of residents live in poverty.<sup>6</sup> The majority of residents in the communities served have health insurance, with 57% on private insurance, more than 35% on public insurance, and 3% without any health insurance.

**FIGURE 1: Communities Served by Baystate Noble: 2019 Population Estimates**



**Source:** U.S. Census, ACS 2019 5-Year Estimates Data Profiles, specifically table DP05, Demographic and Housing Estimates

**Hospital Service Area or “HSA”** is defined as the local health care markets for a hospital. HAS is determined through the collection of zip codes whose residents receive most of their hospitalizations from the hospitals in that area. Data is based on case mix data (including inpatient discharges, emergency department visits, and observation stays) provided through the Center for Health Information and Analysis (CHIA).

**Hospital Community/ies Served** includes the cities and towns in the HSA, plus additional geographic areas, or considers target populations or other specialized functions. For each Baystate Health CHNA cycle the most recent HAS for the hospital is provided by the Strategy Department. The hospital’s Community Benefits Advisory Council (CBAC) reviews the HSA. Community stakeholders serving on the CBAC offer additional geographies, target populations, or specialized functions that should also be considered for the **hospital community/ies served** for the purpose of the CHNA. **For the 2022 CHNA the hospital uses the term “community/ies served.”**

## About the Coalition of Western Massachusetts Hospitals/Insurer

Baystate Noble is a member of the **Coalition of Western Massachusetts Hospitals/Insurer** (Coalition), a partnership formed in 2012 that consists of nine non-profit hospitals, clinics, and insurers in the region: Baystate Medical Center, Baystate Franklin Medical Center, Baystate Noble Hospital, Baystate Wing Hospital, Cooley Dickinson Hospital, Mercy Medical Center, Shriners Hospitals for Children – Springfield, Berkshire Health Systems, and Health New England, a local health insurer whose communities served by Baystate Nobles cover the four counties of western Massachusetts. The Coalition members share resources and work in partnership to conduct their **Community Health Needs Assessments** (CHNA) and to address regional needs, with the goal of improving health and equitable distribution of health outcomes.

To understand current needs, Coalition members collaboratively conducted CHNAs in 2021–2022 to update their 2019 CHNAs. The 2010 Patient Protection and Affordable Care Act (PPACA) requires tax-exempt hospitals and insurers to “conduct a Community Health Needs Assessment [CHNA] every three years and adopt an implementation strategy to meet the community health needs identified through such assessment.” Based on the findings of the CHNA and as required by the PPACA, each hospital develops a health improvement plan to address select prioritized needs. The CHNA data also inform County Health Improvement Plans (CHIPs) in all Coalition counties.

The CHNA was conducted by the Coalition in partnership with a **consultant team** led by the Public Health Institute of Western Massachusetts that consisted of: Collaborative for Educational Services, Franklin Regional Council of Governments, and Pioneer Valley Planning Commission. (See Appendix 2 for more about the consultant team.)

Community leaders and residents were also integral to the process. They provided input through the **Regional Advisory Council (RAC)**, interviews, focus groups, and Community Chats. The Coalition engaged hundreds of residents across the counties of western Massachusetts in data collection and outreach about the CHNA.

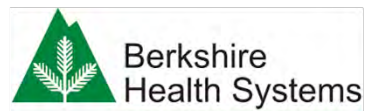
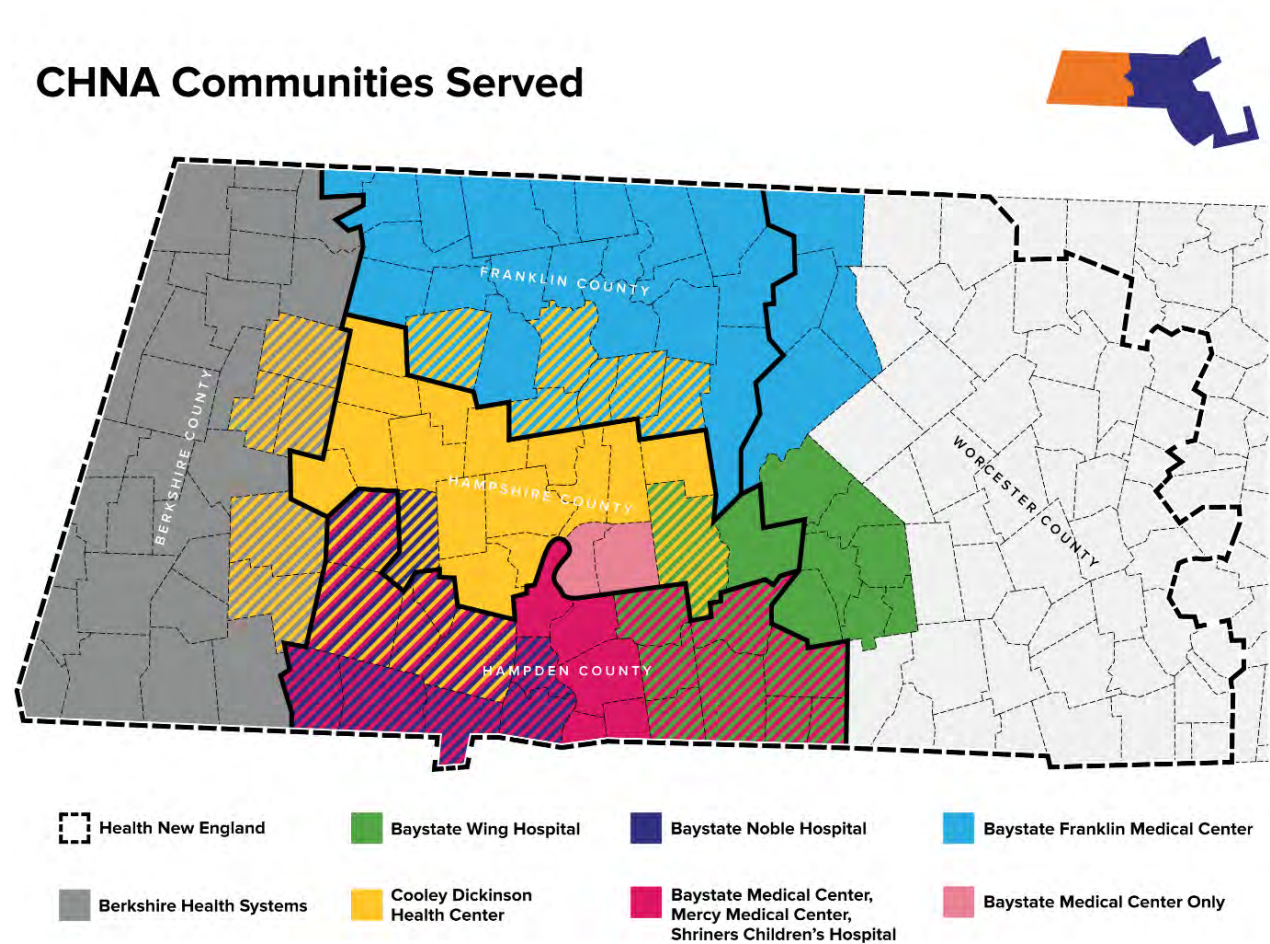
---

We are coming into this space from different experiences and with different expectations regarding a process for assessing health needs across many different communities in many different locations with many different cultures impacted by many different power structures and assumptions for living and “access.”

*Cheryl L. Dukes, UMass Amherst Elaine Marieb College of Nursing  
RAC Member, Baystate Franklin CBAC Member*

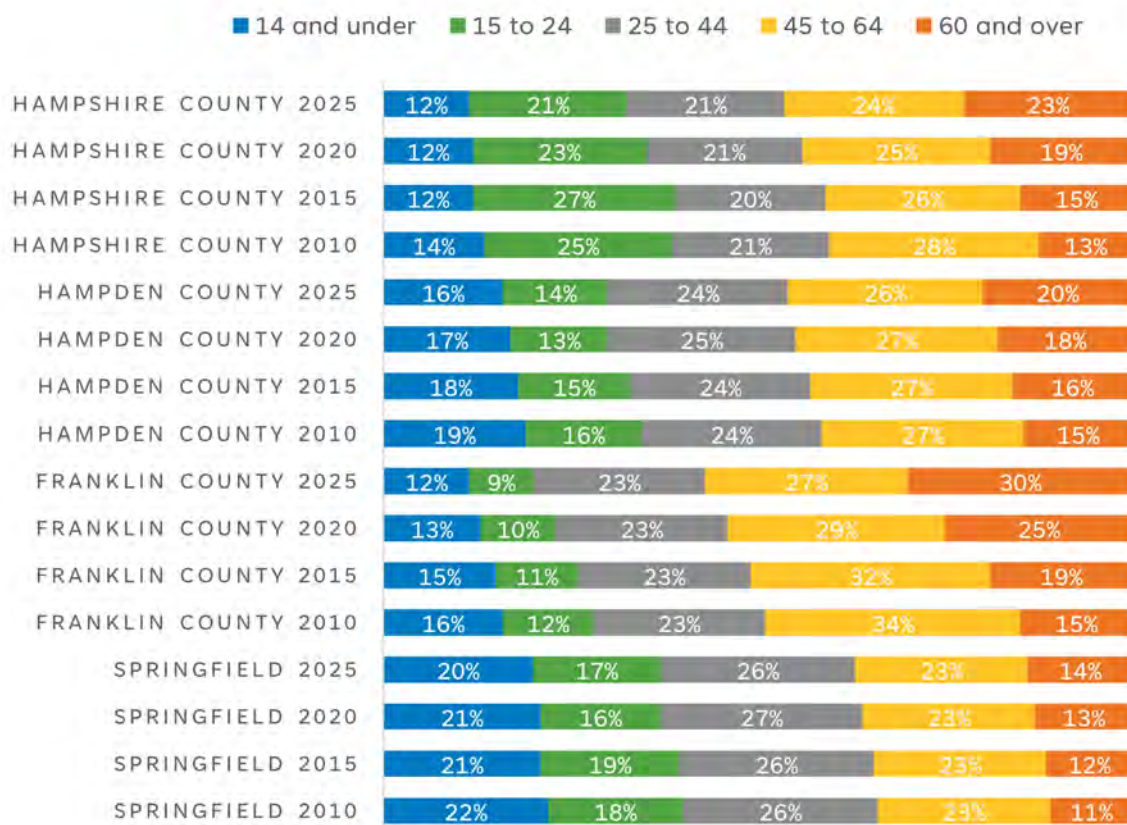
---

FIGURE 2: Communities Served by 2022 CHNA Coalition Members



Hampden County has a higher proportion of residents with a disability (12%) than the state overall (8%), and West Springfield and Westfield have 14% and 15% of residents with a disability, respectively.<sup>7</sup> The region's aging population continues to grow as a proportion of residents, and it is projected to increase in the next several years (Figure 3).

**FIGURE 3: Projected Pioneer Valley Population by Age, 2010–2025**



**Source:** UMDI Population Projections 2018, U.S. Census Bureau 2018 5-YR ACS Tables B25007 Tenure by Age, B01001 Sex by Age, B25001 Housing Units, B25004 Vacancy Status

The Pioneer Valley Transit Authority connects Agawam, West Springfield, and Westfield to the Springfield metropolitan area and to Baystate Noble Hospital itself. Paratransit service is also available for people with disabilities within three-quarters of a mile of a fixed route to ease access to medical care.



Community Health Programs Staff  
Hilltown Community Health Center  
Photo Credit: HCHC



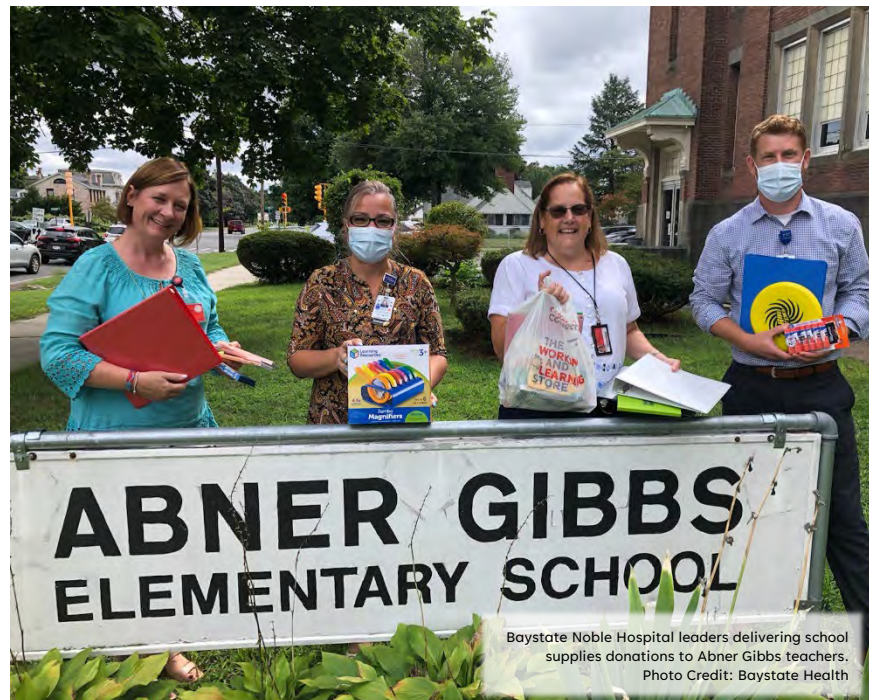
Candle Thank You Gifts presented by children to  
Baystate Noble Hospital leaders  
Photo Credit: Boys & Girls Club of Greater Westfield



"Say It Nicer" documentary screening  
Photo Credit: Westfield State University



Photo Credit: Westfield State University



Baystate Noble Hospital leaders delivering school  
supplies donations to Abner Gibbs teachers.  
Photo Credit: Baystate Health



Westfield Community Outreach Team  
Photo Credit: Tapestry Health



Kamp for Kids  
An inclusive summer camp in Westfield, Massachusetts  
Photo Credit: Behavioral Health Network

## Summary of the Previous CHNA

The 2019 CHNA found that the communities in Hampden County served by Baystate Noble continue to experience many of the same prioritized health needs found in the Baystate Noble 2016 CHNA. Social and economic challenges experienced by the population in the communities served by Baystate Noble contribute to the high rates of chronic and other health conditions identified in this needs assessment. These social and economic factors also contribute to the health inequities observed among priority populations, which include children, older adults, Latino/a/e, and Black residents, LGBTQIA+ youth, immigrants and refugees, people with limited incomes, women, people with mental health and substance use disorders, people who were formerly incarcerated, those experiencing homelessness, and people living with disabilities, including children. Additional data is needed to better understand the needs of these populations to reduce inequities. The region's population continues to experience numerous barriers that make it difficult to access affordable, high-quality care, some of which are related to the social and economic conditions in the community, and others that relate to the health care system. Mental health and substance use disorders were consistently identified as top health conditions impacting the community, and the inadequacy of the current systems of care to meet the needs of individuals impacted by these disorders arose as a prominent issue that needs to be addressed.

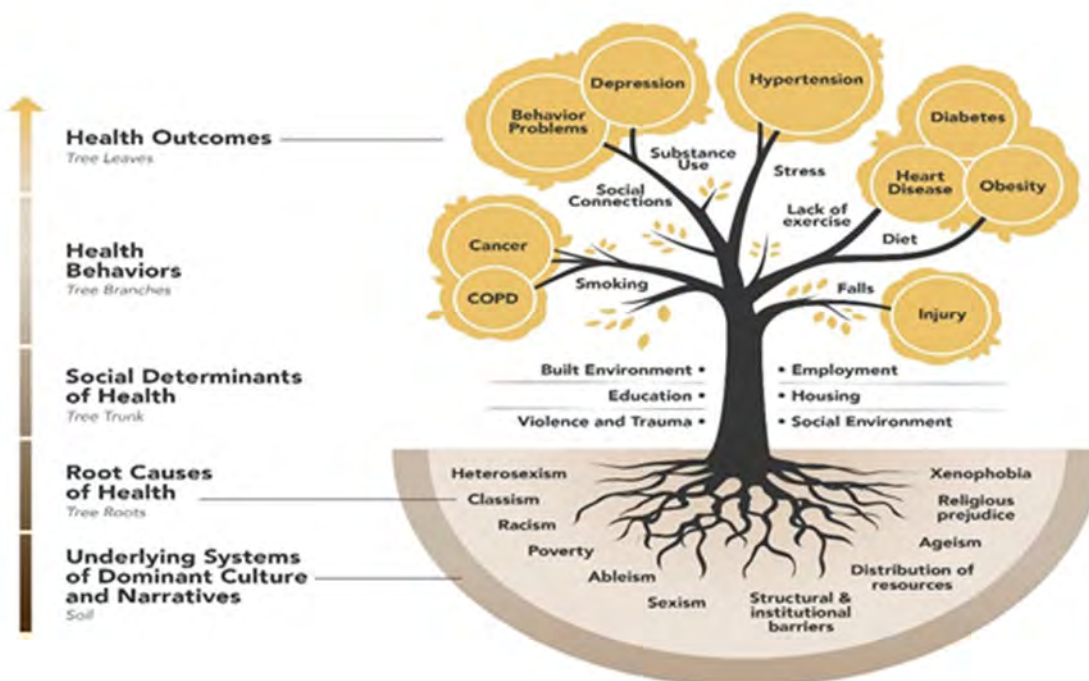
# 3. Setting Context

## 3. Setting Context

### Coalition Guiding Principles for 2022 CHNA

The Coalition of Western Massachusetts Hospitals/Insurer was founded on a shared commitment to collaborate toward the common goal of health equity in the region. Health equity means achieving the conditions where everyone has the ability to live to their full health potential. The Coalition and Regional Advisory Council (RAC) for the 2022 CHNA share guiding principles rooted in an analysis of what prevents health equity, captured visually in the accompanying tree graphic (Figure 4).<sup>8</sup> We acknowledge that the causes of inequity are the deep-rooted, longstanding belief systems and narratives that were historically developed to confer advantage and power to certain groups, in order to disadvantage and disempower other groups. This emphasis on dominant narratives and structural racism has been incorporated by the Massachusetts Department of Public Health (MDPH) into its health equity work, for example in its presentation of data from the COVID-19 Community Impact Survey.

**FIGURE 4: Health Tree Model: Understanding Root Causes of Health Behaviors and Outcomes**



*Source: Health Resources in Action*

Historically, advantaged groups that asserted power over others included White people, males, those with wealth and land, cisgender and heterosexual people, and people without disabilities. Groups that were dominated and excluded included Indigenous tribes, enslaved Africans and their descendants, people of Latin American origin, people of Asian and Pacific Islander origin, other immigrants, women, people without wealth, people with disabilities, LGBTQIA+ individuals, and religious minorities.

Systemic racism, structural poverty, and the other “isms” in the graphic’s tree roots are each a means to perpetuate dominant advantage, and they continue today. They show up in public policies, institutional practices, including in health care systems, and individual actions. As a result of these systemic hierarchies, race, ethnicity, age, gender, wealth and income, disability status, etc. determine one’s access to quality health care, a living wage, safe, affordable housing, freedom from violence, a good education, and healthy foods and physical activity.

---

“Racism stays through the life  
of a person.”

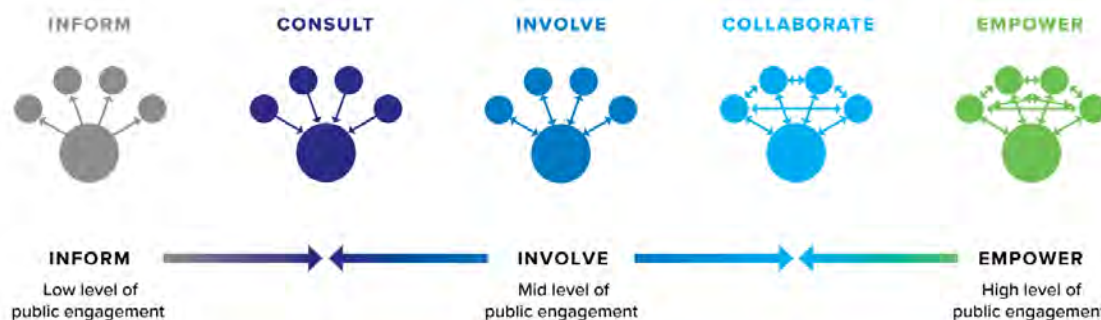
*Age Friendly Coalition Member, Community Chat, Hampden County*

---

To make meaningful progress to address these root causes of poor health, the CHNA process seeks to embody the values of community-led change, anti-racism, cultural humility, and social justice. (See glossary in Appendix 3.) The structure of CHNA decision-making shows the commitment to community-led change. The Regional Advisory Council (RAC) is made up of the Coalition hospital/insurer members, residents with lived experience of poverty and discrimination, and people who work in health care and community services. The Coalition Steering Committee also includes community representatives. Our Coalition member institutions and their leaders are each at different points in our journey to become anti-racist and culturally humble. We seek to learn and grow with and from each other and RAC members. Ultimately, we want to share decision-making more fully with those most directly affected by health inequities, to ensure residents can influence the environment we all live in to improve community health, and we will continue holding ourselves accountable to do this.

**FIGURE 5: Community Engagement Standards for Community Health Planning Guideline**

### COMMUNITY ENGAGEMENT SPECTRUM



**Source:** Massachusetts Department of Public Health, "Community Engagement Standards for Community Health Planning Guideline, January 2017, <https://www.mass.gov/doc/community-engagement-guidelines-for-community-health-planning-pdf/download>

In doing so, the Coalition and RAC recognize that Figure 4 does not represent the full story of our community, nor an inclusive vision for health equity. Our understanding of the complexity of these issues is evolving as we learn together, and we do not yet have adequate words and images to describe them. We will challenge ourselves to find or create visual representations that better speak to both the inequities and assets of our region, and our aspirations for its future.

Every three years the Coalition, RAC, and consultants strive to improve the CHNA process and our practice of these values. For 2022, we all engaged in honest and often difficult discussions and decisions that advanced the process from 2019 in at least four meaningful ways:

1. Moved decision-making closer to the community-driven ("Empower") end of the Community Engagement spectrum (Figure 5).
2. Further refined the equity values of the CHNA process, as described above.
3. Pursued a commitment to collective action around a regional focus area, youth mental health.
4. Strove to make the CHNA reports more accessible – shorter, easier to read, more useful, and actionable.

Finally, it is important to note that by federal mandate (Affordable Care Act), this CHNA is required to provide an accounting of health needs. It also includes information on

available resources to address those needs. Yet it does not paint the full picture of the vibrant, culturally diverse, and actively engaged communities that come together across sectors to make change in each community served by Baystate Noble and the region. The Coalition members honor community endurance and firmly embrace an asset-based lens in our vision for community wellness.

## Orientation to this Report

As in previous CHNA reports, this CHNA uses a health equity focus to identify needs. Research shows that less than a third of our health is influenced by our genetics or biology.<sup>9</sup> The Guiding Principles and Health Tree (Figure 4) show that our health is largely determined by social and economic factors that are influenced by practices and policies such as systemic racism and structural poverty, which continue to affect the health of all people in western Massachusetts. In fact, inequality that harms some of us harms all of us. And the converse is true – when we develop targeted solutions to end inequities, everyone benefits.

In describing prioritized health needs for the communities served by Baystate Noble, this report builds on the 2019 CHNA. In addition to identifying the 2022 prioritized health needs, it provides greater depth on several critical issues identified by community and hospital leaders:

- **Two regional priorities:**
  - Impact of COVID-19
  - Youth mental health crisis
- **Baystate Noble Hospital's three focus areas for deeper dive:**
  - Availability of and access to health providers
  - Lack of resources to meet basic needs
  - Intersection of mental health and substance use disorder
- **Baystate Noble priority populations for greater focus:**
  - Youth
  - Older adults
  - Immigrants and refugees

To ensure the main report is accessible and easy to use, each section is clearly labeled and designed to be easily separated out as its own resource. Prioritized health needs that the Coalition or the hospital did not identify for deeper focus are summarized in fewer pages. We encourage readers to refer to the 2019 report<sup>10</sup> for richer context and information on many of these issues. Finally, though the needs are separated into sections, we acknowledge the cross-cutting nature of all the health issues and social factors presented, and that people experience many barriers to health and wellness.

As you read this report, please think about how you, your community, and your organization can use it to support your health equity goals. We want to know how Baystate Noble can partner with you in promoting health and wellness in the communities served. We welcome opportunities for discussion and feedback about the CHNA. Here is how you can participate:

For questions or comments on the CHNA, or to request a hard paper copy of this document please contact:

**ANNAMARIE K. H. GOLDEN**

Director, Community Relations

Baystate Health

**Direct** (413) 794-7622

**Email** [annamarie.golden@baystatehealth.org](mailto:annamarie.golden@baystatehealth.org)

**BRITTNEY ROSARIO, MPH**

Community Benefits Specialist

Baystate Health

**Direct** (413) 794-1801

**Email** [brittney.rosario@baystatehealth.org](mailto:brittney.rosario@baystatehealth.org)

**General Email** [community@baystatehealth.org](mailto:community@baystatehealth.org)

## Learn More

### Baystate Noble's CHNA Strategic Implementation Plan (SIP)

[www.baystatehealth.org/about-us/community-programs/community-benefits/community-health-needs-assessment](http://www.baystatehealth.org/about-us/community-programs/community-benefits/community-health-needs-assessment)



[www.pvpc.org/HCHIP](http://www.pvpc.org/HCHIP)



## STRIVE Project

Successful Teens: Relationships, Identity and Values Education (STRIVE), an initiative led by Dr. Aline Gubrium and Dr. Elizabeth Salerno Valdez, uses participatory research to examine how structural violence, like racism, and other systems of oppression contribute to inequitable adolescent sexual and reproductive health (ASRH) outcomes for youth.<sup>11</sup>

STRIVE is funded by the Massachusetts Department of Public Health (MDPH) and is based at the University of Massachusetts Amherst School of Public Health and Health Sciences. The research team works in partnership with two important communities across Massachusetts: Springfield, MA Metropolitan area and Lynn, MA on Boston's North Shore. Methods and activities of the study include engaging stakeholders in Community Advisory Boards, conducting Youth Participatory Action Research (YPAR) through Photovoice and Digital Storytelling, assessing ASRH frameworks used by youth serving organizations, and other activities. Emphasis on the importance of community and youth collaboration is paramount to the study. This CHNA features some of the photovoice photographs and words of participating youth in Springfield. Learn more at [www.striveproject.org/the-project](http://www.striveproject.org/the-project).

# 4. Methodology

## 4. Methodology

### Assessment Process and Methods

The 2022 CHNA updates the prioritized community health needs identified in the 2016 and 2019 reports in three areas: the social and economic factors or “determinants” that influence health, barriers to health care access, and health behaviors and outcomes. This CHNA focused on the communities served by Baystate Noble where data could be aggregated across municipalities. Alternatively, the report provided Hampden County-level data and data for West Springfield, Westfield, and the Hilltowns rural cluster, as available. The Hilltowns rural cluster includes Southwick, Granville, Tolland, Russell, Blandford, Montgomery, Huntington, Chester, Chesterfield, Southampton, Westhampton, Middlefield, Williamsburg, Goshen, Cummington, Plainfield, and Worthington. When data is not broken out by race or ethnicity at the local level, county or state data is used to show inequities present in the broader region.

Assessment methods included:

- **Literature review: (Fall 2021):**
  - Review of existing assessment reports published since 2019 that were completed by community and regional agencies serving Hampden County.
- **Quantitative data collection and analysis (Winter 2021-Spring 2022):**
  - Analysis of COVID-19 Community Impact Survey data from MDPH.
  - Analysis of social, economic, and health data from MDPH, the U.S. Census Bureau, the County Health Ranking Reports, Broadstreet, Baystate Noble, and a variety of other data sources.
- **Qualitative data collection and analysis:**
  - Community Chats conducted by members of the RAC in the communities served and regionally (Summer – Fall 2021).
  - Survey of public health officials in Hampden County and throughout western Massachusetts (Fall 2021).
  - Focus groups and interviews with key informants conducted by the consultant team (Winter 2021-Spring 2022).

## Prioritization Process

The 2022 CHNA used the 2016 and 2019 CHNA priorities as a baseline, then reprioritized needs where quantitative and qualitative data, including community feedback, warranted changes. In previous CHNAs, prioritized health needs were those that had the greatest combined magnitude and severity, or that disproportionately affected populations that have been marginalized in the community. Quantitative, qualitative, and community engagement data confirm that priorities from 2019 continue in 2022. Through this process, the Coalition members agreed that COVID-19 and youth mental health warranted regional attention in the CHNA. Also, Baystate Noble chose a priority in each of three facets of health needs: availability of and access to health providers (Barriers to Care); lack of access to basic needs (Social Determinants of Health); and the co-occurrence of mental health and substance use disorder (Health Outcomes). The consultant team identified priority populations by disaggregating available data to reveal disparities, which led Baystate Noble to prioritize youth and older adults. Baystate Noble also prioritized immigrant and refugee populations, as they face unique barriers to receiving adequate health care.

## Limitations and Data Gaps

Given the limitations of time, resources, and available data, our analysis was not able to examine every health and community issue. Data for this assessment were drawn from many sources. Each source has its own way of reporting data, so it was not possible to maintain consistency in presenting data on every point in this assessment. For example, sources differed by:

- geographic level of data available (town, county, state, region).
- racial and ethnic breakdown available.
- time period of reporting (month, quarter, year, multiple years).
- definitions of diseases (medical codes that are included in counts).

Though not a problem when reporting data for larger cities such as Westfield and West Springfield, we encounter a problem with smaller towns due to small numbers. When the number of cases of a particular characteristic or condition is small, it is usually withheld from public reports to protect confidentiality and because of estimate variability. The availability of data and the problem of small numbers affect the reporting of data by race and ethnicity in this assessment. Statistics for people of color in the communities served by Baystate Noble do not begin to reveal the level of detail we would like to know,

preventing a better understanding of people who identify with different races and ethnicities. It is also important to consider intersectionality— the overlapping identities of residents. What impact does being young, Latino/a/e, and gay in the communities served by Baystate Noble have on health? Or being transgender and living on an income below the poverty line? We were unable to explore these differences with the quantitative data available and had limited capacity to do so in focus groups. This CHNA process cannot begin to cover the full range of identities present in our community.

Finally, the MDPH COVID-19 Community Impact Survey (CCIS) gave insight into the impact of the early pandemic phase on people throughout western Massachusetts. Yet these findings are not generalizable to all people in the region. In the communities served by Baystate Noble there were a limited number of youth respondents (less than 50). Therefore, we were not able to provide communities served by Baystate Noble specific estimates for youth respondents. Instead, we analyzed western Massachusetts estimates to provide insight about youth in the communities served.

## Language Used to Describe Demographic Groups

The Coalition and consultant team honor the unique ways that individuals and communities describe and identify themselves. For the purposes of this report, we need to use consistent language when speaking about diverse groups of people, knowing that terms are always evolving and changing. We use the following descriptors where possible in the text: Black, Latino/a/e, Indigenous, Asian, people/communities of color, White, LGBTQIA+. The glossary in Appendix 3 offers further clarification of what we mean by these terms. Throughout the report you may see other terms or labels used in graphics, because these labels were used in the source materials. For any term we use, we know there are community members for whom that term is not their preferred way to be identified. For example, we recognize that there are differences between those who identify as Puerto Rican, Mexican, or Cuban that are not captured by the term “Latino/a/e,” and differences among those who identify as Chinese, Japanese, or Indian that aren’t captured by “Asian.”

# 5. Impact of COVID-19 in Our Community

## 5. Impact of COVID-19 in Our Community

### Overview

It has been three years since the last community health needs assessment, and for two of those years and counting, our nation and region have battled a once-in-a-century health pandemic. COVID-19 has taken a tremendous toll on this communities served by Baystate Noble, and it continues to affect the status of health in western Massachusetts. We lost seventy-six veterans at the Holyoke Soldiers Home<sup>12</sup> and hundreds of other older adults throughout the communities served by Baystate Noble in congregate care settings.<sup>13</sup> We lost family members who were still in their prime but could not fight off the virus, often because they already had a chronic disease that compromised their immune system. We lost brave essential workers, many who chose to take the risk. Others had no choice but to keep working despite the risks, such as the 72,000 essential workers in the Commonwealth of Massachusetts who are undocumented.<sup>14</sup> Many immigrant employees work in high-risk environments such as nursing homes and other congregate care facilities as Certified Nursing Assistants, Home Health Assistants, or residential counselors. While we cannot tell the story of every life lost and every person left grieving, we can provide data that capture the enormity of the impact.

The pandemic very clearly exacerbated existing health inequities. People of color, people with low wealth, and people living in densely populated housing were more at risk early in the pandemic, when less was known about how to effectively treat the virus or to reduce its spread. Because systemic racism and structural poverty reduce access to good-quality jobs and housing and increase the prevalence of chronic disease, people of color and limited-income people were more likely to be essential workers and experience other risk factors, such as having higher rates of comorbidities.<sup>15</sup>

Some communities of color experienced disproportionately higher rates of illness, hospitalization, and deaths from COVID-19 across the United States.<sup>16</sup> For example, since the start of the pandemic, the CDC reports that the greatest age-adjusted death rates have been among Indigenous individuals, Black residents, and those who are Latino/a/e, at rates more than double those of White people.<sup>17</sup> As the pandemic progressed and vaccination became available, inequitable access to vaccines and vaccine hesitancy continued to drive COVID-19 health inequities.

## COVID-19 in Our Region and Communities Served

Since the pandemic began, COVID-19 has been ranked among the top three leading causes of death in the United States for most months.<sup>18 19</sup> Although we do not have up-to-date overall death data for the western Massachusetts counties, comparisons to 2017 data (the most recent available) indicate that COVID-19 is likely among the leading causes of death locally as well. Although touching all of us throughout the region, the impacts across our four western Massachusetts counties have varied, with communities that have historically experienced inequities bearing greater impact.

- The communities served by Baystate Noble, as of June 28, 2022, had lost 338 lives to COVID-19 (see Table 1).
- For the year 2020, the greatest absolute and relative number of lives lost in all Massachusetts counties was experienced in Hampden County, with 1,055 people losing their lives to COVID-19. Hampden County's death rate was more than 70% greater than each of the other three western Massachusetts counties and 20% greater than that of the state.
- Hampden County COVID-19 deaths in 2020 were comparable to the other top causes of death in the MDPH 2017 Death Report (top listed causes: heart disease=1,019, cancer=908).<sup>20</sup>

**TABLE 1: Confirmed COVID-19 Cases and Deaths as of June 28, 2022**Live updates at <https://www.mass.gov/info-details/covid-19-response-reporting>

County	Total Cases	Total Cases per 100,000	Total Deaths	Total Deaths per 100,000
Berkshire County	28,841	22,353	393	305
Franklin County	12,242	17,235	149	210
Hampden County	146,695	31,491	1,845	396
Hampden County	33,408	20,583	365	225
<b>Regional Values</b>	<b>221,186</b>	<b>26,707</b>	<b>2,752</b>	<b>332</b>
<b>Communities Served by Baystate Noble</b>	<b>28,674*</b>	<b>24,280*</b>	<b>338*</b>	<b>286*</b>
State	1,762,215	25,067	20,910	297

**Source:** MDPH COVID-19 Dashboard

\*Communities served by Baystate Noble data were only available through December 2021.

Note: Please note that case and death counts are updated based on the most up-to-date definition of COVID-19 determined by MDPH. Therefore, you may notice fluctuations in counts to ensure accuracy.<sup>21</sup>

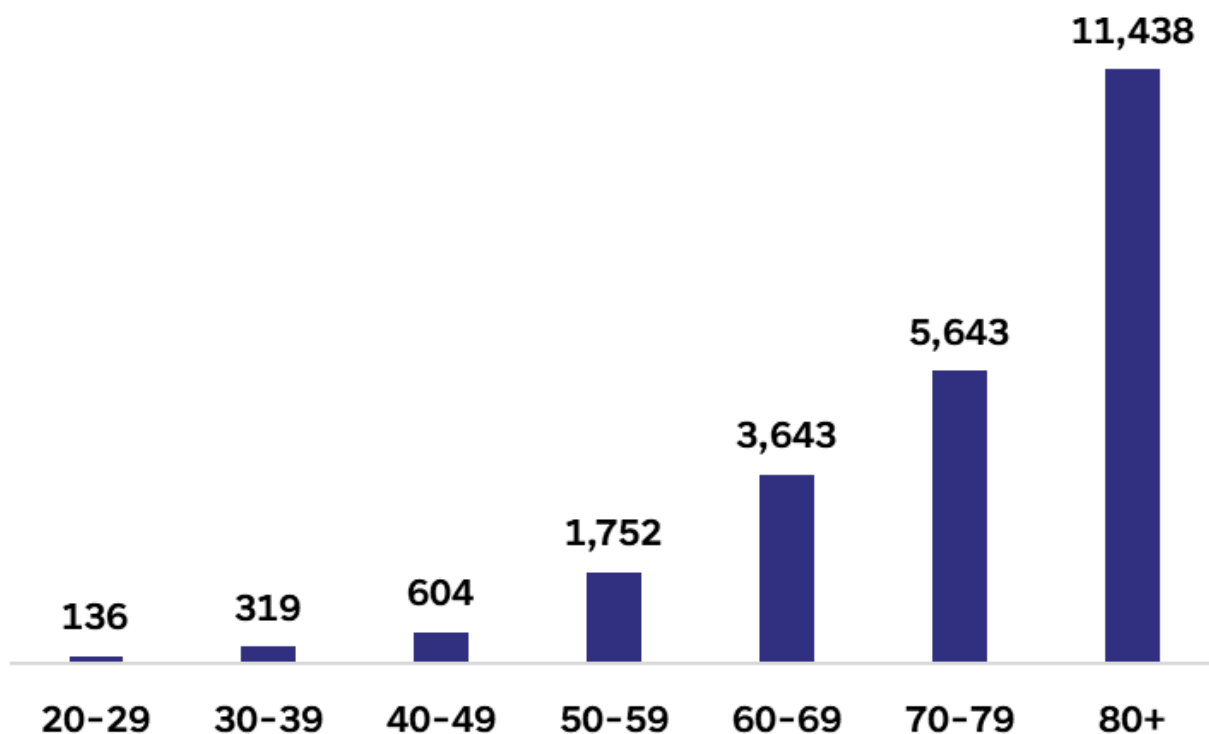
Many more people have tested positive for COVID-19 and experienced illness. The number of confirmed cases in the four counties of western Massachusetts as of June 28, 2022, was 221,186 (Table 1). The communities served by Baystate Noble saw more than 24,000 cases per 100,000 population through December 2021.

Data disaggregated by race/ethnicity are not available at a county level in Massachusetts. State data have limitations because a large percent of cases (varies weekly; as of January 27, 2022: 27%) are classified as “unknown” or “other.” However, the disparate rates of infection and death in Hampden County, and national trends, indicate that communities of color and those with limited means suffered higher rates of both infection and death.

Older adults have been at elevated risk for severe illness and death from COVID-19 (see Figure 6).

- Although we do not have local data, we see trends at the state level that are comparable to those across the country with a median age of death of 75 years.
- Examination of available statewide data from August 12, 2020, through March 1, 2022 (age-specific death data is only available as of August 12, 2020) indicates that 74% of deaths occurred among those who were seventy or older.
- Twenty-four percent of deaths in Massachusetts have occurred among those residing in an elder care facility.<sup>22</sup>

**FIGURE 6: COVID-19 Deaths by Age in Massachusetts, Age 20+ (August 12, 2020–March 24, 2022)**



**Source:** MDPH COVID-19 Dashboard, COVID-19 Raw Data - March 28, 2022. <https://www.mass.gov/info-details/covid-19-response-reporting>.

Another population living in congregate settings that was at elevated risk for COVID-19 infections were incarcerated individuals, as well as the staff working in prisons. We have state by state comparisons for some mortality and morbidity statistics, but these data were not available for the region, or the communities served by Baystate Noble:

- Data collected by the Marshall Project through June 22, 2021, estimated that in Massachusetts 2,574 incarcerated individuals (one in three) were infected, and twenty-one individuals died (1 in 379). This was a higher proportion than the national median of one in 493.<sup>23</sup>
- According to the same database, 954 prison staff (one in five) were infected, but no staff deaths were reported.

On the positive side, Massachusetts has one of the highest COVID-19 vaccination rates in the U.S., although vaccination rates vary across the Commonwealth.

- 76% of the state's population had been fully vaccinated and 53% of those fully vaccinated had received a booster dose as of February 24, 2022.
- By June 2021, 72% of incarcerated individuals in Massachusetts had been vaccinated and 60% of prison staff members.<sup>24</sup> Data on boosters were not available.
- 66% of Noble communities served by Baystate Noble residents were fully vaccinated per capita as of July 27, 2022.<sup>25</sup>
- As of July 18, 2022, vaccination rates for West Springfield and Westfield were 67% and 63%, respectively.
- 36% of residents in both Westfield and West Springfield received a booster dose.<sup>26</sup>

Barriers to vaccine access and vaccine hesitancy were factors in lower rates in some parts of the communities served by Baystate Noble. Vaccination obstacles include getting time off from work, needing childcare, limited access to transportation, limited physical mobility, and caring for other family members at home. Reluctance to get vaccinated among people of color has been driven in part by distrust resulting from this country's history of racist experimentation and unethical medical treatment among Black and Indigenous populations.<sup>27</sup> These lower vaccination rates have contributed to higher COVID-19 case rates, hospitalizations, and deaths, particularly during the Delta and Omicron phases of the disease. Hospital capacity in western Massachusetts was also extremely limited during the Delta and Omicron phases because of high COVID-19 hospitalization rates and hospital staff shortages.

## Other COVID-19-related Impacts and Inequities

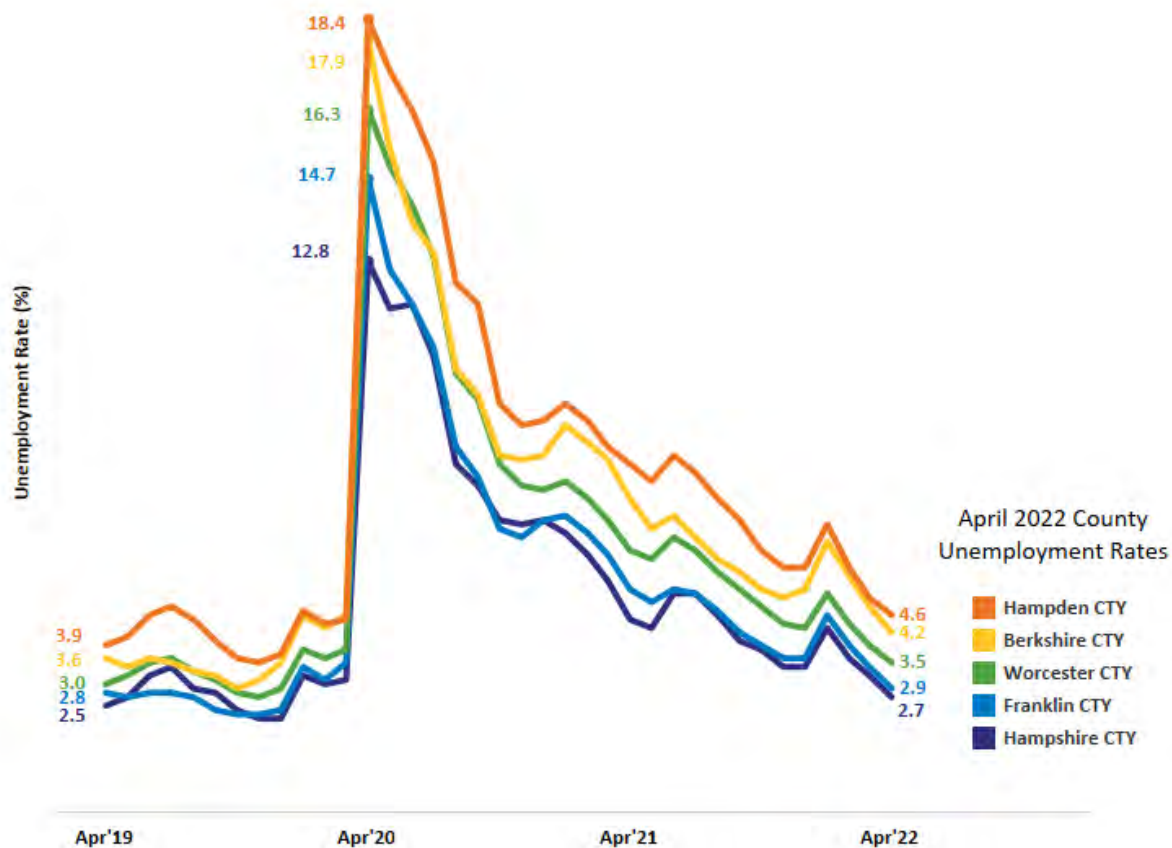
Not only has the disease caused illness, hospitalization, and death, but the numerous measures that have been taken to control the pandemic (such as lockdowns and remote learning) have also affected well-being in our communities. These ripple effects of COVID-19 compromised the building blocks of health by causing higher rates of unemployment, food insecurity, and housing instability among those who already experience inequities. The pandemic also led some people to delay preventive, emergency, or urgent care out of concern for risk of exposure to COVID-19, or because of the need for medical facilities to prioritize COVID-19 patients.<sup>28</sup> Some impacts are described below, and others are woven into later sections of this CHNA.

### *Business, the Economy, and the Labor Force*

---

In 2020, each of the counties in the region saw substantial decreases in the size of their economies and small business revenues (Appendix 5). As the pandemic recession took hold, unemployment rates spiked, and did not return to pre-pandemic levels until the end of 2021 (Figure 7).

- The inflation-adjusted value of goods and services produced (ie the Gross Domestic Product or GDP) declined by \$1.6 billion (more than 5%) in the Pioneer Valley in 2020.<sup>29</sup>
- Hampden County's GDP shrank by an estimated 5%. Variation between counties in decline of economic activity in part reflects the mix of industries making up the county economy.
- Small business revenues declined steeply in the initial weeks of the COVID-19 shutdowns, down 41% in Hampden County.<sup>30</sup>
- Revenues remained depressed throughout 2020 and into 2021, when Hampden County's small business revenues were 22% below pre-pandemic levels.
- In Hampden County, unemployment peaked at 18% in April 2020. West Springfield and Huntington unemployment rates were among the highest in the region, both topping at 19%. Additionally, Westfield hit 16% unemployment in the same period.<sup>31</sup>

**FIGURE 7: County Unemployment Rates, April 2019 –April 2022**

*Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics*

Although local unemployment and workforce participation data are not available disaggregated by gender or race/ethnicity, we know based on national studies that women, and especially women of color, were disproportionately harmed by the pandemic-induced upheaval in the economy and the shift to remote schooling.<sup>32, 33</sup>

These wrenching economic shifts and resulting loss of wages led to challenges with housing, food access, and other basic needs for many residents. Data on these impacts can be found in Section 6c of this report. Undocumented residents were ineligible for COVID-19 stimulus relief money and unemployment insurance, thus providing no support for an already underserved population. The pandemic and its economic and social consequences also had a profound impact on mental health for people of all ages and demographics. Section 6b of this report looks at mental health and substance use in adults, and Section 6a explores the youth mental health crisis.

Rural communities have had challenges during the pandemic that affected their access to employment, school, and health care, driven by limited access to the internet. CCIS data for three rural geographic clusters (Appendix 1) that overlap with Hampden County showed a disparity in concern about internet access, with 23% of rural respondents citing this concern, compared to 17% of urban respondents. See more on internet access and telehealth in Section 6c of this report. Other sections also contain data on rural needs and challenges affected by the pandemic.

### *Challenges of Statewide Public Health System on Pandemic Response*

---

People's health outcomes are strongly impacted by the quality of local public health protections in each community. Yet in our region, the local public health system is chronically underfunded and understaffed. The state's decentralized structure has led to 351 independent boards of health,<sup>34</sup> each with many responsibilities, including to:

- ensure environmental, water, food, and housing safety,
- enforce compliance with tobacco and lead laws,
- prepare for and respond to public health emergencies,
- investigate infectious diseases and issue guidance and quarantine or isolation orders, including for COVID-19, and
- offer local vaccine clinics, wellness clinics, and public education on health hazards.

Most local health departments were already overstretched before the beginning of the pandemic, because Massachusetts does not fund this important local function and has no standards or workforce requirements. This weak system led to vast differences in the pandemic protections offered to residents of our region. If a town did not have a public health nurse, as most did not, no one was available to conduct contact tracing. The Commonwealth invested significant funds in a private non-profit solution, the Community Tracing Collaborative (CTC), so many local communities could fulfill their contact tracing responsibilities during the pandemic. During surges in COVID-19, however, local public health officials reported that the CTC was unable to reach people in a timely fashion due to the extreme demand on their staff, which resulted in significant disparities in COVID-19 contact tracing between towns using the state system and those with local public health nurses. The Commonwealth ended the CTC and offloaded tracing responsibilities back to local boards of health in December 2021, during the height of the Omicron wave, and many health departments could not keep up with the volume of cases.

### *Long COVID*

---

As we experience the COVID-19 pandemic transition to becoming endemic, ie a cyclically occurring virus, finding, and measuring the potential long-term health impacts is instrumental in supporting our community. A recent study<sup>35</sup> suggests that most people will recover from COVID-19 and not have long lasting effects. However, some people may have symptoms that persist beyond the duration of infection (often referred to as “long COVID”). Ongoing research seeks to learn more about who experiences post-COVID conditions, including whether groups disproportionately impacted by COVID-19 are at higher risk. Best estimates from the CDC suggest that over 13% of people who contracted the virus may have extended health impacts at one month or longer, and that more than 30% of hospitalized patients may experience symptoms six months out.<sup>36</sup> As of July of 2021, long COVID may be considered a disability under the Americans with Disabilities Act (ADA)<sup>37</sup>, and later that year, a specific billing code was created for long-haul COVID.<sup>38</sup> Previous data shows that people with disabilities looking for work experience an unemployment rate twice that of workers without disabilities.<sup>39</sup> Not only can persistent symptoms disrupt the lives of individuals and affect their quality of life, but there are also potential impacts on employment, access to adequate health care, affordability of care, and more. This is an area that must be explored further so that we are able to comprehensively support residents with long-term complex symptoms.



Baystate Infectious Disease Physicians L-R  
Dr. Durane Walker, Dr. Amanda Westlake, Dr. Esteban DelPilar-Morales  
Photo Credit: Baystate Health

## Assets and Resources

Baystate Noble responded to the COVID-19 in myriad ways. Internally, Baystate Noble supported staff in providing the community with safe, compassionate, and expert care by:

- Educating staff, patients, and families.
- Optimizing personal protective equipment (PPE), on-demand COVID-19 testing, and vaccination for all employees.
- Providing latest available treatments.
- Managing bed capacity through appropriate staffing, reductions in elective procedures, and in collaboration with area hospitals.
- Upgrading facilities to minimize spread.

To learn more about Baystate Health's response to COVID-19 please view our Annual Report on [www.baystatehealth.org](http://www.baystatehealth.org), click on "About Us" at the top, and then click "Annual Reports".

- To view our 2021 Annual Report please visit [www.2021.bhannualreport.org](http://www.2021.bhannualreport.org)
- To view our 2020 Annual Report please visit [www.2020.bhannualreport.org](http://www.2020.bhannualreport.org)

Once in the Annual Report, click on "Year in Review" tab at the top, then click "COVID-19".



Dr. Sundeeep "Sunny" Shukla  
Chief of Emergency Medicine  
Baystate Noble Hospital  
Photo Credit: Baystate Health



# 6. Prioritized Health Needs

## 6. Prioritized Health Needs

The communities served by Baystate Noble continues to experience many of the same prioritized health needs identified in Baystate Noble's 2019 CHNA. The COVID-19 pandemic exacerbated many of the existing inequities related to these needs. Several prioritized needs received deeper focus as noted below. The prioritized health needs for the communities served by Baystate Noble are:

The prioritized health needs for communities served by Baystate Noble are:

- **Social and Economic Factors or “Determinants” that Influence Health:**
  - Access to Basic Needs (**Baystate Noble focus area– deeper dive**)
  - Need for Financial Health
  - Educational Attainment
  - Employment and Income
  - Violence and Trauma
  - Environmental Exposures and Climate Crisis
- **Barriers to Health Care Access:**
  - Access to and Availability of Providers (**Baystate Noble focus area– deeper dive**)
  - Other Barriers
- **Health Behaviors and Outcomes:**
  - Youth Mental Health (**Regional Focus Area – deeper dive**)
  - Mental Health and Substance Use (**Baystate Noble focus area – deeper dive**)
  - Chronic Conditions and Other Health Outcomes

### 6a. Regional Focus Area: Youth Mental Health

#### *Overview*

---

Youth mental health is about well-being, and it requires collective resources and responsibility to be achieved. Many factors contribute to a sense of mental wellness. Activities described in the quote below create a sense of connection and care and are critical prevention strategies to support youth in thriving.

---

“Healthy mental health comes when you feel seen and heard, when you feel connected to something bigger than yourself: you belong at school, in your family, faith community, sports team, whatever. Healthy mental health comes when you move when you get fresh air. Healthy mental health comes when you feel that your gifts align with the world’s needs, when you are engaged in things you are passionate about.”

*Mental Healthcare Provider, Key Informant Interview*

---

Many other factors erode a young person’s sense of well-being. For some, structural poverty and rural isolation are factors. For youth of color, LGBTQIA+ youth and other marginalized young people, mental well-being has been affected by racism and discrimination in both communities and schools. Gender and gender identity are significant aspects of youth mental health. Over their lifetimes, girls and women suffer twice the rates of anxiety and depression that males do.<sup>40</sup> All students, but especially girls, may feel the pressure to meet social expectations around school performance, beauty, and appearance, and getting into college or a career. The rise in use of social media has proven to be a double-edged sword for adolescent and teen girls. Use of some social media platforms is correlated with a rise in poor self-image, depression, and suicidal ideation for girls.<sup>41</sup> Yet social media also provides a source of connection for isolated teens, as well to access mental health resources.<sup>42</sup>

As Figure 8 effectively conveys, the systems of care typically used in our society to treat mental health issues are not generally designed to be able to dig below the surface to unearth and address these root causes. Many providers may seek to understand physical or social environments affecting their client, and desire to approach treatment from a holistic, integrated perspective. Yet the large systems they must operate within are rarely set up to support this approach.

Another facet of this issue is the variety of systemic, cultural, family, and community perceptions and responses to the topic of mental health. Having the language to talk about one’s mental well-being—and feeling heard and supported by providers, peers, family members, and caring adults—influences how a young person experiences a mental health challenge.



## STRIVE RESULTS: The impact of racism and classism on minoritized youth

### Chains

"I think of it as the barriers that we can write down and say, this is something there's a reason why it's systemic, you know, there's something fundamental about how much how many things are against us. ...Being a first generation Puerto Rican, having to go through, not only, you know, dealing with my dad and the language barriers, just feeling that sense of less than...The memory that came back, was when I was trying to tell an instructor back in high school. I was like, yeah, so my name is \_\_\_\_\_. Like, that's how you say it. And he was like, no one's ever gonna listen to you. Cause your, your demographic, you're not going to get to who you want to. So I was like, that's a chain, but ima break it...So I thought of words, of the chain has to be broken with action, so you have to do something about it"

-Sandro, 16



### *Impact of COVID-19 on Youth Mental Health*

Past CHNAs found that youth across the region struggled with mental health issues.<sup>43</sup> Prior to the pandemic, local leaders recognized that youth mental health was a serious public health issue and sought to address it. For this CHNA, the Coalition decided to make youth mental health a focus area for shared assessment and action.

COVID-19 exacerbated this prioritized health need by increasing mental health challenges, taking away the prevention activities that support wellness, and straining already strapped mental health provider systems. The shift to remote schooling in March 2020 and related lockdown to reduce transmission of COVID-19 had an enormous mental health impact on families. The sustained period of limited in-person interaction, online learning, social distancing, and masking affected children of all ages. This section focuses on youths aged 12-24.

Youth survey data provide local and regional understanding of the impact of the pandemic on youth mental health. Some school survey data local to the Noble

communities served by Baystate Noble was available for this assessment. Gateway Regional school district, which serves several Hilltown communities, conducted a Prevention Needs Assessment Survey (PNAS) in 2021, which received 96 responses (32% of students).<sup>44</sup> The West Springfield CARE Coalition conducted a PNAS in 2021 as well, with 534 responses across 8th, 10th and 12th grade (59% of students).<sup>45</sup> These surveys provide us with important information about the well-being of students in these areas that is consistent with data from other youth surveys in the region. However, please use caution when interpreting the survey findings. Findings from surveys with lower participation rates, particularly that of Gateway Regional School District, may not be representative of the experience of all students in the area. Westfield School District did a one-time student survey in 2017 and has not conducted another one since, thus no new data were available for Westfield students.

**Depression:** The proportion of West Springfield students across all three grades with depressive symptoms was 49% in 2021. Students with depressive symptoms were 57% of respondents in 2021. Both indicators rose from prior surveys, but because of declining response rates over time, the results should be interpreted with caution. In Gateway public schools, 56% of 8th, 10th, and 12th grade students in 2021 reported feeling depressed or sad most days, especially 8th graders (63%) and 12th graders (62%). Female students felt depressed or sad much more than male counterparts (72% versus 39%).

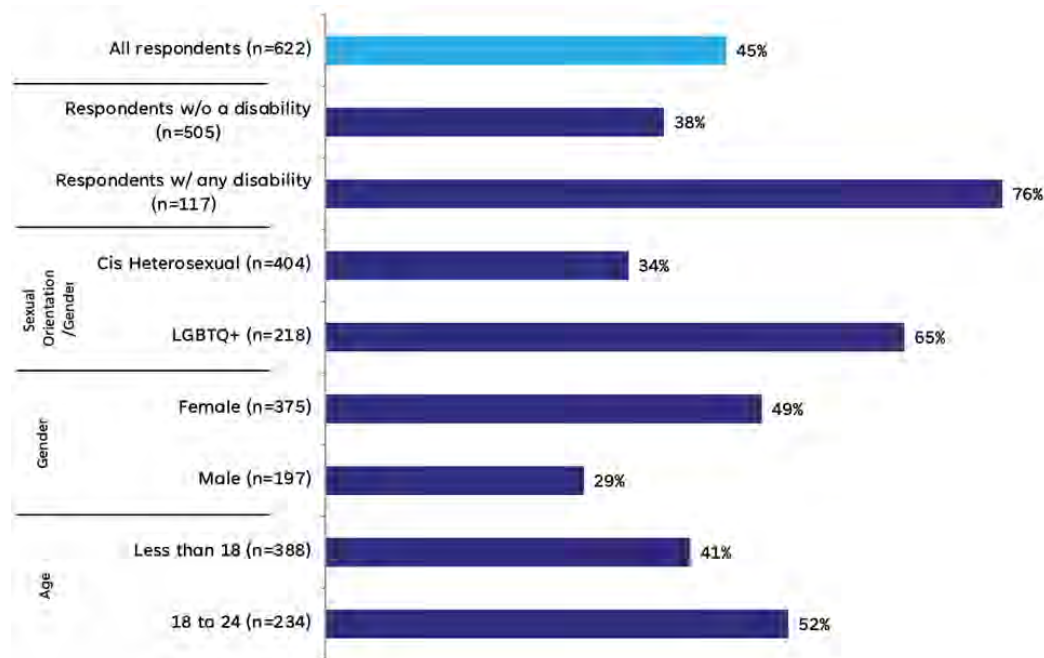
**Impact of COVID-19:** In West Springfield, additional questions related to COVID-19 showed that 55% of all students reported feeling worried, nervous, anxious, or unable to relax. Among 8th graders, 59% reported that they had less interest in the things they normally enjoy, and 65% had less interest in connecting with the people in their life. The more rural Gateway survey found that almost half (49%) of students surveyed felt sad or depressed more often during the COVID-19 pandemic. There was a stark gender difference: 68% of female respondents compared to 31% of male respondents.

Broader regional data revealed similar trends. The MDPH COVID-19 Community Impact Survey (CCIS) gave insight into the mental state of hundreds of young people in western Massachusetts early in the pandemic. The CCIS provides important information, yet readers should use caution when interpreting these findings as they are not generalizable to all youth in the region. In the Noble communities served by Baystate Noble, there were a limited number of youth respondents (less than 50). Therefore, we were not able to provide communities served by Baystate Noble specific estimates and look to Western Massachusetts estimates to provide insight about youth in the regions. The following data are for all western Massachusetts youth respondents:

- Almost half of youths who responded to the survey (45%) reported feeling so sad or hopeless every day for two weeks or more in a row that they stopped doing usual activities (Figure 9). These high rates of depressive symptoms correspond with the high rates seen in youth surveys administered this past spring across the region.
- In addition, inequities in mental health challenges that preceded the pandemic continued to manifest, especially among youth with a disability, LGBTQIA+, female, rural, and young adults 18-24 (Figure 9).
- Inequities of note include respondents with a disability (n=117) were twice as likely as youth with no disability to show depressive symptoms. LGBTQIA+ youth (n=221) were almost three times more likely than other youth to experience multiple PTSD-like symptoms due to the pandemic (Appendix 5).
- When asked which types of mental health resources would be most helpful, youths expressed the greatest preference for information on how to access a therapist, have an in-person meeting with a therapist, and the opportunity to use an app for mental health support (Appendix 4).

**FIGURE 9: Western Massachusetts Youth Who Reported Feeling Sad or Hopeless, 2020**

*Youth up to age 24 who reported feeling so sad or hopeless almost every day for two weeks or more in a row that they stopped doing usual activities.*



**Source:** MDPH COVID-19 Community Impact Survey, 2020.

**Tip for interpreting graph:** The percentages shown represent the percent of that population that reported feeling sad or hopeless. For example, 49% of females every day for two weeks or more in a row that they stopped doing usual activities.

---

“Behavioral health issues among youth have increased following a year of ‘homeschooling.’ We see increased numbers of youth behavioral health issues and those seeking emergency care and services in the Emergency Department.”

*Medical Manager, Community Chat*

---

Youth up to age 24 who reported feeling so sad or hopeless every day for two weeks or more in a row that they stopped doing usual activities.

Key informant interviews were conducted for the Noble communities served by Baystate Noble with mental health providers, school-based counselors, and youth development professionals. Key informants noted that they see youths feeling anxiety, stress, worry, depression, trauma, and hypervigilance. These feelings are compounded by a sense of powerlessness to get out of unhappy situations.

*“The ones that are sad are not sad, but they have so little power in the conflict they are having. They say they want to kill themselves because they know they will get to the Emergency Department that way. We see some kids over and over who feel safe with us.... Sometimes they just hate the situation they are in and saying they are suicidal gets them out of that situation.”*

#### **Youth Mental Health Provider**

The pandemic transition to telehealth is seen by some as a barrier, as it adds to the many other interactions moving to the virtual sphere. Some interviewees felt that there is still a shortage of in-person opportunities for youth to connect with supportive adults and one another, and that telehealth does not address this gap. Providers overwhelmingly felt that youth mental health and well-being has taken a step backward in the last two years, and many existing mental health challenges have been amplified by the pandemic, including:

- Difficulty fostering and maintaining social connections and support, which has led to feelings of isolation, grief, and loss, which in turn reinforces social anxiety.
- Difficulty focusing on school and/or feeling behind in school and lacking the ability to catch up, which also leads to anxiety.
- Increases in conduct disorder observed by adults, such as more fights, violence, and challenging of boundaries.
- Difficulty enforcing boundaries between school, home, and extra-curricular activities.
- Substance use.

According to mental health providers and youth development professionals who were key informants, youths tended to turn to their peers, as well as some adults for support. Trusted adults might include parents, teachers, coaches, and staff working in targeted programs. Respondents also noted, however, that many youth lack these trusting relationships.

*“I wish they were getting support. I don’t see it a lot. I think they go to friends or parents, though they can be hesitant to admit something to a parent. Teachers, they see them every day. A lot of them don’t know there are resources available to them to sit and talk and they just bottle it up inside. I don’t see support-seeking enough.”*

#### Youth Development Professional

That said, key informants also observed some youths’ ability to engage in relationships with like-minded youth, as well as their social-emotional intelligence, both positive assets for coping with mental health challenges.

As more youths felt depressed and anxious during the pandemic, key informants observed numerous factors that affected young people’s ability to receive support and care. While the communities served by Baystate Noble has some of the critical pieces needed to support youth, respondents noted a wide range of gaps in the system and critical barriers to accessing needed supports. These included organizational cultures and practices, socio-economic challenges to accessing care, and inadequate capacity and funding for systems to meet the wide range and depth of issues with which youth are presenting.

- 1. Families increasingly turned to Emergency Departments (EDs) for help with mental health challenges, where services and beds were extremely limited, especially during certain periods of the pandemic.** While a range of mental health services provide support in the community, youth and the adults who take care of them tend to turn to the Emergency Department at local hospitals when they do not feel they have other options. This is especially true for parents who no longer feel that they can manage their child's behavioral health issues, children who are in the custody of the Department of Children and Families, and children who have behavioral health crises at school. Once children interact with the ED, they may be referred to various supportive programs depending on the situation they are coming from and their specific needs. One provider cited that she believes only 10% of youth who end up in the ED for mental health crises have a medical reason (such as physical injury) to be in the ED. Once youth end up in the ED for mental health crises, they can have extended stays in the ED because of the lack of inpatient beds, group homes, and other resources that can support youth experiencing a mental health crisis. Providers consistently acknowledged that the ED is not an acceptable place for youth to spend extended periods of time. Some youths have been exposed to highly traumatizing events in EDs.
- 2. Providers are dealing with a lack of systemic support needed to maintain capacity, infrastructure, and quality of youth mental health care.** Several providers described "provider burnout" and exhaustion as a major reason that providers are leaving the field, creating a shortage of providers. This can be especially damaging when youths are in the care of a string of providers and must keep rebuilding relationships. Providers and other youth-serving institutions do not have the time they need to connect with one another and to create a strong network of referrals and youth support. In addition, there is a lack of private space for behavioral health consultations within hospitals, and especially within the ED. Another clear capacity issue involves the availability of crisis mental health service assessments. Behavioral Health Network is the state-contracted Emergency Services provider for the western region. Their contract states that they will arrive at the ED within one hour to evaluate youth who are experiencing a mental health crisis. Because of inadequate funding and a lack of providers, interviewees reported that their average response time is 11 hours to arrive at the hospital and to deliver the health assessment that is necessary for behavioral health patients to get discharged from the ED. This issue disproportionately affects children who are abandoned at the ED or are in

the custody of the Department of Children and Families. Further, there is an acute shortage of inpatient facilities for youth. Key informants gave varying lengths of time, such as 3 to 4 weeks and up to 6 months, for how long youths might have to board in the ED due to the lack of inpatient facilities. While providers agreed on the need for expanded inpatient services, they expressed lack of trust in partnerships between hospital systems and for-profit health care organizations, such as the new Kindred inpatient facility being built in partnership with Baystate Health. Providers questioned whether care that a profit motive has is really in the best interest of the patient.

3. **The funding streams and salary structures for mental health workers are fragmented.** Certain providers, such as school-based health center providers and community health workers, have their positions funded by grants with specific deliverables, limiting their ability to respond to emergent needs. Some providers are transitioning away from working with insurance because it is too much of a hassle for them, or they are not accepting MassHealth because it offers lower reimbursement rates. Several interviewees noted that there is inadequate public or private funding available to pay providers what they are worth, which contributes to providers leaving the field or not entering the field in the first place.

*“The most important jobs in the Commonwealth about youth are direct services work. These are \$16–17 an hour jobs that no one wants with inconvenient hours on evenings and weekends. Everyone acknowledges the problems, and no one wants to fund the solutions”*

**Youth Mental Health Provider**

4. **Transportation to mental health services or youth development opportunities was one of the chief challenges identified, particularly in the more rural areas of this region.** There is a lack of public transportation in the Hilltowns. Rural residents must drive long distances to receive care. There are significant barriers and costs associated with youth getting drivers' licenses. It was also noted that the lack of late school buses means that many youths cannot take advantage of afterschool programs in the Westfield public schools. Telehealth has afforded some easier access to health services. Few, however, see it as a perfect solution.

5. **Mental health stigma continues to be a challenge for individuals and systems.** Key informants observed that some youth tend to be well versed in the language of mental health and see it as normal to talk about, in part due to its prevalence as a topic on social media. That said, many youths still experience stigma or judgment in disclosing mental health challenges, especially with adult members of their family. Another form of stigma is embedded within institutions in the system. For example, inpatient facilities deprioritize the acceptance of patients with complex cases, or certain practitioners refuse to accept patients who are in medical treatment for drug addiction.
6. **Social media has played both positive and negative roles for youth before and during the pandemic.** Social media platforms have helped normalize mental health issues, and they give youth the language and outlet to talk about them and to connect with others facing similar challenges. Social media can also have negative impacts on youth mental health, lead to social isolation, and decreased physical activity. Social media, particularly Instagram, has been associated with increases in poor mental health among adolescent girls.

---

“Technology is not good or bad. It’s neutral.  
It’s a tool and it's about how you use it.”

*Youth Mental Health Provider*

---

7. **Lack of support for parents.** Parents who are struggling with their own mental health or the difficulties of caring for children often face stigma and/or a lack of resources to get help before the issues become acute behavioral health crises. Young adults with children struggle to afford the childcare needed to free up time for dealing with their own mental health or that of their children. Parents and caregivers, as well as youths, may not have enough time or the right time during the right hours to get the care they need. The process of finding a provider that accepts a particular insurance is complex and hard to navigate. Some parents are successful at it, while others lack the tools and understanding needed to navigate the process.

### *Assets, Resources and Solutions*

---

Key informant youth development and mental health professionals in the communities served by Baystate Noble cited a wealth of community assets that hospital leadership can support and build upon.

**Prevention supports such as youth development, as well as broader strategies that address social determinants of health.** Interviewees cited the network of youth-serving organizations in the greater Westfield area as being particularly strong, especially the YMCA and the Boys & Girls Club. A couple of interviewees mentioned that they could imagine success if hospitals “pushed in” more to youth-serving organizations, such as the Boys & Girls Club or group homes, to let youths and youth service providers know what mental health services are available to them. Many interviewees shared the sentiment of being strongly invested in preventing youth from showing up at the ED in the first place. By increasing involvement with youth-serving organizations, hospitals could not only get the word out about resources but could also take the opportunity to hear from youths about what would prevent them from ending up in mental health crises. One youth mental health provider stated:

*“The Westfield Boys & Girls Club is a notable example of a zealot level organization. They are super engaged... and committed to reaching [underrepresented] students. They seem to understand because they have a near religious fervor, but they’re not a religion.... It almost seems like a quasi-state thing, but it’s not. It’s all volunteers.”*

#### **Baystate Noble Key Informant Interviewee**

Other suggestions included increasing accessible community drop-in spaces for children and families to relax and socialize; more drop-off daycare centers for young parents; funding for youth activities; and funding for teenagers to get drivers’ licenses.

**The Massachusetts Department of Public Health’s Children’s Behavioral Health Initiative (CBHI).** CBHI was highlighted as a strong base for collaboration and coordination, which, according to its website<sup>46</sup>:

- Pays for an enhanced continuum of home-and community-based behavioral health services.
- Requires that primary care providers screen for behavioral health conditions at well-child and other office visits.

- Standardizes behavioral health assessment by requiring clinicians to use the Child and Adolescent Needs and Strengths (CANS) assessment tool to document comprehensive initial assessments, and to update the CANS every 90 days to ensure that treatment plans address strengths and needs as they evolve.

**Clinical and organizational collaborations that foster essential system and capacity building, as well as coordination of care:**

- Collaboration between the Hilltown Community Health Center and the Gateway Regional School District to open the school-based health center at Gateway Regional High School.
- The regional team of the Massachusetts Child Psychiatry Access Program (MCPAP). As described on their website: “MCPAP provides quick access to psychiatric consultation and facilitates referrals for accessing ongoing behavioral health care. We encourage and support PCPs integrating behavioral health resources into their practices and work with behavioral health providers as well as primary care providers. MCPAP is available for all children and families, through their primary care providers, regardless of insurance. MCPAP is free to all PCPs.”
- Collaborations between hospital psychiatric units, the Department of Children and Families, and the Department of Mental Health.
- Collaborations between departments within hospital systems, particularly the way these collaborations are enabled by technology that increases the timeliness of communications.
- Center for Human Development’s (CHD) on-call crisis team that group homes can call for intervention during a behavioral health crisis.
- Some aspects of the partnership between Baystate Health and the Kindred inpatient facility under construction were seen as effective, particularly in that it will address the desperate need for increased inpatient capacity.
- Community coalitions where youth-serving people and organizations can come together and educate one another on the resources available, such as those centered on substance use, and those facilitated by the Behavioral Health Network and Gándara.
- Partnerships between afterschool programs and other businesses and organizations offering activities such as yoga, mindfulness, ice skating, and museum visits.
- Hospitals’ Patient and Family Advisory Councils educating clinical staff on community needs.

## 6b. Deeper Dive: Mental Health and Substance Use

### *Overview*

---

Although mental health is commonly thought of as the absence of mental illness, mental well-being extends beyond the presence or absence of mental disorders. The World Health Organization (WHO) defines mental health as the “state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.”<sup>47</sup>

Any discussion of mental health in western Massachusetts must acknowledge the diversity of lived experience within the region and this communities served by Baystate Noble. Mental health challenges emerge in varied contexts, from rural poverty and isolation to urban disinvestment and discrimination. In both rural and urban communities, residents are resilient, the effects of poverty and discrimination have been passed from one generation to the next, and they continue to experience these harms today. Whether intentional or not, race and class discrimination in the delivery of care can further contribute to poor mental health, as well as other adverse outcomes.<sup>48</sup>

Substance use disorders (SUD) refer to the recurrent use of drugs or alcohol that result in health and social problems, disability, and inability to meet responsibilities at work, home, or school. Mental health challenges and substance use are often intertwined and described together as behavioral health. According to the National Institute on Drug Abuse, “Multiple national population surveys have found that about half of those who experience a mental illness during their lives will also experience a substance use disorder and vice versa.”<sup>49</sup>

Risk factors for SUD include genetics, age at first exposure, and a history of trauma.<sup>50</sup> Substance use must also be considered in the context of historical and present-day rural and urban disinvestment, poverty, racism, and discrimination. Data show that other factors that contribute to SUD, such as economic constraints, social networks, opportunities for substance abuse treatment, and experiences within treatment, are affected not only by class but also by race and ethnicity.<sup>51</sup>

Also, predatory suppliers have heavily marketed both legal and illegal substances to communities of color for decades, including menthol tobacco products,<sup>52</sup> malt liquor and distilled spirits,<sup>53, 54</sup> crack cocaine, and more recently, synthetic opioids.<sup>55</sup> The federal war

on drugs and inequitable sentencing for crack vs. powdered cocaine<sup>56</sup> contributed to the mass incarceration of people of color and stigmatized substance use addiction as a crime rather than a treatable health condition. Disparities between Black and White people in arrests and sentencing for illegal drug use persist today, even though rates of drug use are similar.<sup>57</sup>

The impact of the COVID-19 pandemic on mental health was widespread while also exacerbating disparities. In addition, police violence and vigilantism against people of color, threats to our democracy, and the rise of political hate speech and hate crimes, gun violence, and extreme weather brought on by the human-created climate catastrophe,<sup>58</sup> further affected mental well-being in disparate ways. National weekly Census Bureau surveys taken after the pandemic began found the greatest leaps in anxiety and depression levels were among Black people, especially after George Floyd's murder by Derek Chauvin.<sup>59</sup> The second most affected group was Asian people, whom politicians had been demonizing because the coronavirus started in China, resulting in a rise in hate crimes against this population. Additionally, about 110 refugees resettled in western Massachusetts in 2020<sup>60</sup>, and this population may face mental health challenges such as PTSD, depression, and/or anxiety because of their displacement.<sup>61</sup>

Alarming data and community concern about mental health issues among youth prompted the Coalition and RAC to devote a section of this report to the specific mental health needs of young people aged 12-24. It follows this section, which focuses primarily on adults.

## Mental Health

---

“We have lost so many mental health providers – making appointments for patients is a real challenge.”

*Medical Administrator, Community Chat*

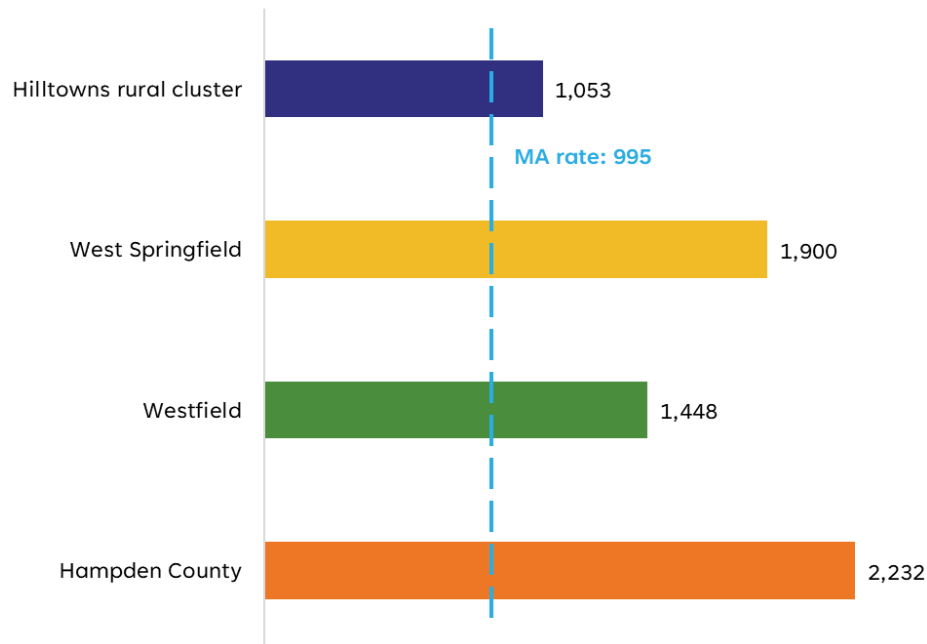
---

As in the 2019 CHNA, mental health continues to be a prioritized health need, and has been exacerbated by COVID-19. Prior to the pandemic, the need was already acute.

- **Adult Mental Health:** Poor mental health is one measure of need. In 2019, 14% of Westfield adults reported their mental health was not good for 14 days or more within the prior 30 days. This slightly exceeded the statewide rate of 13%. The figure for West Springfield was 12%. Further, 24% of Westfield adults and 22% of West Springfield adults suffer from depression.<sup>62</sup>
- **Hospital Admissions:** In 2019, West Springfield, Westfield, and the Hilltowns cluster all had mental health admissions rates that exceeded the state rate, with West Springfield’s rate almost double the state rate per 100,000 residents (Figure 10).
- **Racial Disparities:** MDPH Hospitalization data for chronic diseases broken out by race showed that Mental Health Emergency Department visits were highest for Black residents, and lowest for Asian residents in Hampden County. The state did not provide data for those who identify as Latino/a/e ethnicity.
- **Homelessness:** Federal agencies have documented the prevalence of mental illness among people who experience homelessness. The most recent available data for Massachusetts found that 15% of those in emergency shelters and 27% of those in transitional housing had a severe mental illness.<sup>63</sup>
- **Older Adults:** Older adults from Westfield shared a desire for companionship, either human or animal, in a focus group about basic needs (see Appendix 4). According to the 2019 Noble CHNA, about one in three older adults experience depression in select communities in Hampden County. In West Springfield, 31% of older adults have depression, and 29% in Westfield.

**FIGURE 10: Mental Health Hospital Admissions in the Communities Served by Baystate Noble, 2016-2019**

*Age-adjusted rate per 100,000 residents*



*Source: MDPH Hospitalization tables for chronic diseases, 2016-2019*

### Substance Use

Substance use continues to be a prioritized health need in Hampden County, where 18% of adults smoke tobacco, compared to 14% statewide, and the same proportion engage in binge drinking.<sup>64</sup> An important indicator for both mental health and substance use is “Deaths of Despair,” which include deaths due to suicide, drug overdose, and alcohol-related disease. These Deaths of Despair were identified and described by economists Anne Case and Angus Deaton because of the marked increase in these causes of death over the past two decades and their impact on the U.S. working class, especially White men.<sup>65</sup>

- These causes of death affected men at three times the rate of women in Hampden County, and the gender gap was more pronounced than at the state level.
- In 2019, in the communities served by Baystate Noble, 611 per 100,000 residents visited the emergency department (ED) for substance use related concerns, while 562 per 100,000 residents were hospitalized.<sup>66</sup>
- More than one in four (28%) of driving deaths in the communities served by Baystate Noble involve alcohol.<sup>67</sup>

---

“In the many, many years that I’ve done this, I’ve not had the amount of substance use issues [that are present now].”

*Community-based Provider, Focus Group on Access to Basic Needs*

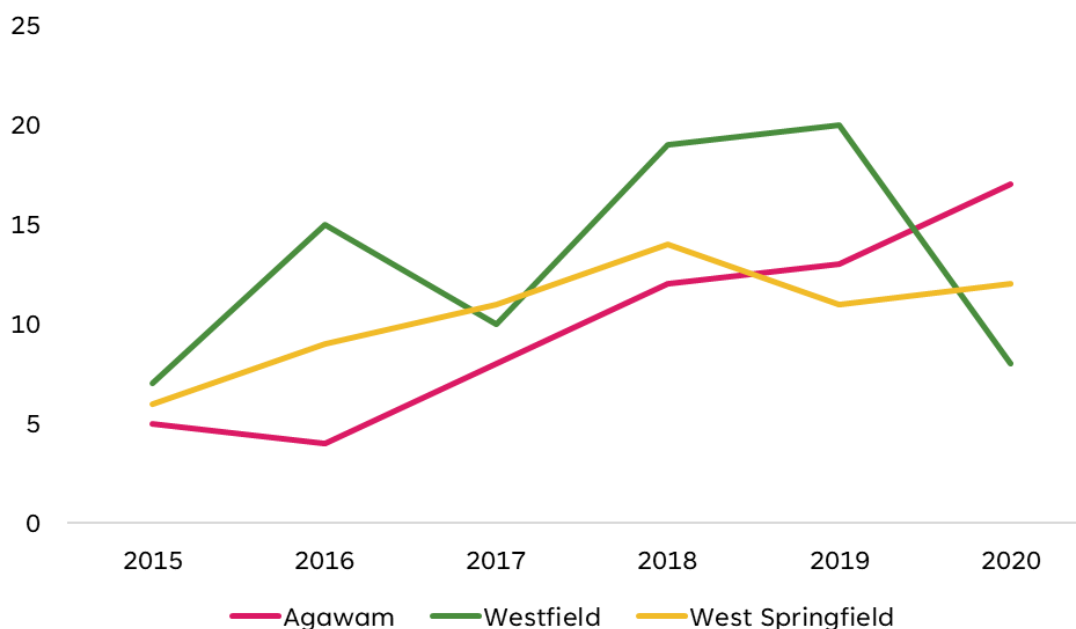
---

Despite some signs of improvement in 2017, the opioid crisis has grown in the last several years across the region and especially in Hampden County.

- In 2020, Hampden County experienced the highest rate of Emergency Medical Service calls related to opioid overdoses of any county in the state.<sup>68</sup>
- In 2019, ED visits for opioids in the Noble communities served by Baystate Noble were 104 per 100,000 residents, with hospitalization rates of 283 per 100,000.<sup>69</sup>
- Tragically, the number of people who died from opioid overdose in Hampden County increased by 452% from 2010 to 2020, a higher percentage than in Hampshire and Franklin counties and the state overall.
- A subset of communities in the Noble communities served by Baystate Noble has seen rises in people dying from opioid overdose over the last five years, especially in Agawam and Westfield (Figure 11).

On the positive side, Westfield saw a decline in opioid-related deaths since 2019, and West Springfield held steady after an uptick in 2018.

**FIGURE 11: Number of Opioid Related Deaths in Select Cities in Communities Served by Baystate Noble, 2015-2020**



*Source: MDPH, Number of Opioid-Related Overdose Deaths, All Intents by City/Town, 2015-2020*

### *COVID-19's Impact on Mental Health and Substance Use*

The COVID-19 pandemic has acutely affected the mental health of residents as well as the availability of care in the region and communities served by Baystate Noble. Among Hampden County public health officials surveyed in 2021 for this assessment, 41% listed mental health and substance use as the most pressing health issue in their community, and it was the top-ranked issue overall. A subset of those respondents also cited a shortage of mental health and substance use services.

Data from the statewide COVID-19 Community Impact Survey (CCIS) conducted in 2020 show the negative impacts of the early lockdown phase on mental health as well as substance use:

**Depressive Symptoms:** In the communities served by Baystate Noble, more than one in three respondents (37%) reported fifteen or more poor mental health days in the past 30 days. Similarly, one in three respondents who primarily spoke a language other than English at home experienced 15 or more poor mental health days in the past 30 days (31%, n=65). The rate was 35% for respondents who lived in a rural area. Respondents

with disabilities and respondents younger than 45 years old were disproportionately impacted (see Appendix 5).

**Signs of Post-Traumatic Stress Disorder (PTSD):** More than one in four respondents (28%) reported experiencing three or more PTSD-like reactions to the pandemic, which include nightmares, avoidant behaviors, and guilt. This was similar for respondents who primarily speak a language other than English at home (26%) and slightly higher (34%) for rural respondents.

**Substance Use:** Among the respondents from communities served by Baystate Noble, who used any substance in the past 30 days, 44% increased their substance use compared to before the onset of the pandemic. Rates of elevated use were greatest among LGBTQIA+ respondents and respondents younger than 45 years old. The rate of reported substance use overall in the past 30 days was 67% for rural respondents versus 60% urban.

While the CCIS data did not reveal a severe mental health strain for residents over 65, people at agencies that work with older adults and public health officials expressed concern about their isolation during the pandemic, which was often exacerbated by challenges in using technology to access care or be connected to loved ones.

In addition to increasing mental health needs, COVID-19 strained the system's capacity to meet those needs. It made worse the inequities that already caused barriers to care. The more rural towns in the communities served by Baystate Noble felt the effects of isolation and limited access to care during the pandemic.

### *Resources and Assets*

---

At the writing of this CHNA, the behavioral health systems of care have been changing and continue to be in transition. Public health officials and Chat participants listed local mental health resources as important assets in the communities served by Baystate Noble but stressed the need for more of them to meet the rising demand.

- **County Behavioral Health Facilities:** Baystate Health made the decision to consolidate behavioral health hospital services in a centralized new facility, which broke ground in March 2022. Once complete, it will replace and augment beds previously available at Baystate's four hospitals in the surrounding area.

- **New Statewide Systems/Models of Care:** The state administration created a Roadmap for Behavioral Health Reform in 2021 that will offer a model to strengthen community-based care through newly designated Community Behavioral Health Centers (CBHCs) that will expand availability of outpatient evaluation and treatment.
- **Telehealth:** The pandemic accelerated the use of “telemental health,” whereby assessment and services are delivered by phone, video, or online chat. For example, during March 2020 to March 2021, when Blue Cross reported a 9,500% increase in the use of telehealth among its Massachusetts patients, more than half of those visits (54%) were focused on mental health. Also, seven in ten outpatient mental health visits were virtual. The value of telehealth was a recurring theme in Community Chats, with appreciation for its availability as well as concern that it needs to be made more accessible. Older adults and rural residents without internet access or computer literacy, non-English speakers, those with disabilities, and individuals who do not feel safe talking about mental health issues from their home may not be as well served. Federal and state changes are easing access to telemental health beyond the pandemic, including treatment of substance use disorders and services provided through Opioid Treatment Programs.
- **Community Resources:** 413Cares provides a searchable website with resources related specifically to mental health: <https://www.413cares.org/breakthestigma>



## 6c. Deeper Dive: Access to and Availability of Providers, and Other Care Barriers

### *Overview*

---

Lack of access and availability of health care providers continues to be a prioritized need for the communities served by Baystate Noble. Several factors affect a resident's ability to receive high-quality, affordable health care when they need it. These include insurance coverage; availability of health care professionals who may or may not take that insurance; the degree to which providers communicate with each other to coordinate care; mobility needs; and access to transportation. Many of the barriers that residents in the Noble communities served by Baystate Noble faced when accessing health care in 2016 and 2019 are still prioritized needs in 2022. The limited availability of health care providers was already a problem, but it became acute during the COVID-19 pandemic.

Unfortunately, residents with low incomes, rural residents, Black and Latino/a/e residents, LGBTQIA+, those with a disability, older adults, immigrants and refugees, and other people with marginalized identities often face additional barriers that can further limit their access to providers. Despite high rates of coverage by health insurance, the cost of health care co-pays, deductibles, tests, and medication is a barrier for many to having optimal health. Westfield older adults in a focus group cited this challenge. Beyond the costs of portions of health care that insurance does not cover, additional costs include programs, equipment, and therapies that are typically not covered by insurance but are suggested by medical providers and help patients, such as acupuncture. Many of these barriers are rooted in health care policies and practices in the U.S. For example, the inability of the federal government to negotiate pharmaceutical prices with companies has made prescriptions in the U.S. more expensive than in most other countries, putting patients without adequate income or good insurance coverage at a disadvantage. Additionally, refugees can get short-term health care coverage but up to 50% of the population nationally is uninsured after this expires.<sup>70</sup>

### *Key Findings on Availability of Providers*

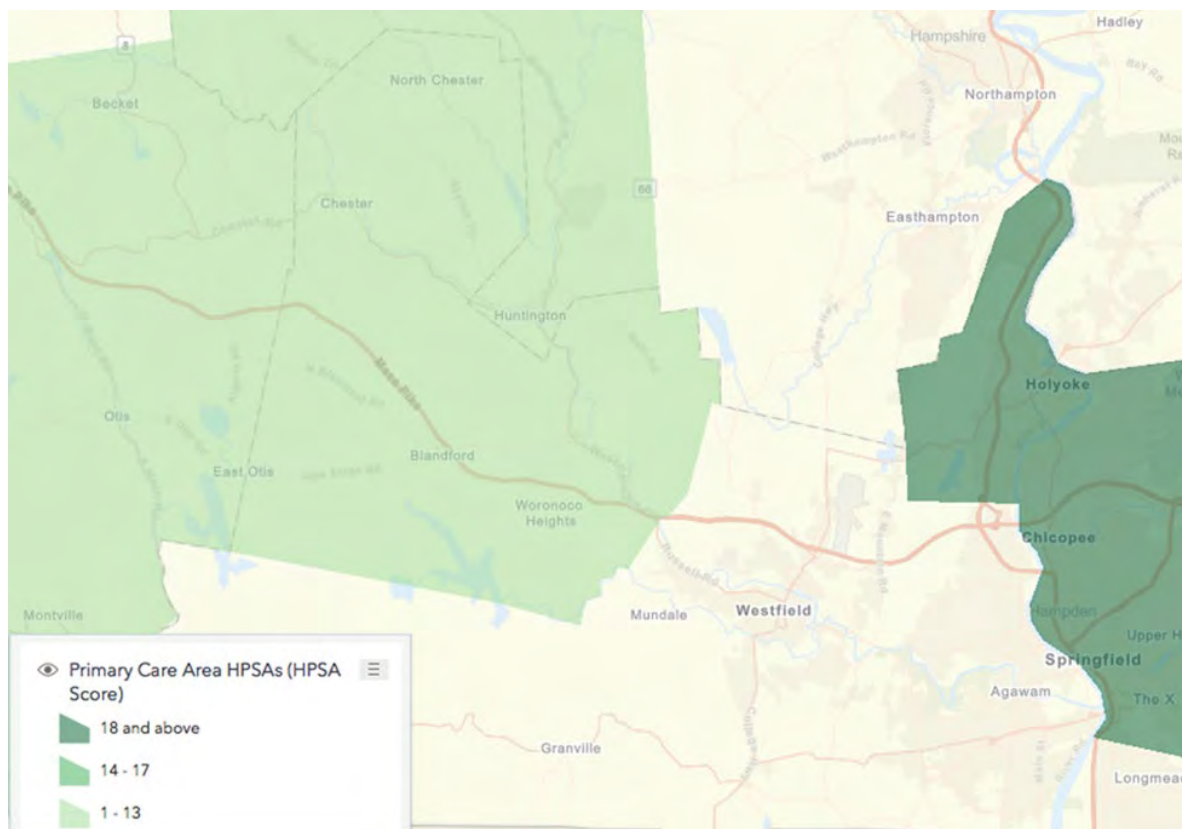
---

Lack of primary care providers (PCPs) and specialty care providers pose a significant challenge to individuals needing health care services. Community location (rural or urban) and/or insurance restrictions can impact accessibility to an already limited number of providers. People with limited income are more negatively impacted by insurance related

issues of access. Chester, Huntington, Blandford, and parts of Russell and Montgomery experience provider shortages and are designated as Health Professional Shortage Areas (HPSAs) (Figure 12).

Population-to-provider ratios are one indicator of how many health care professionals there are in an area. Hampden County has 1,490 people for every primary care physician, fewer providers than the 1,400:1 ratio from the 2019 CHNA. Compared to a ratio of 960:1 in Massachusetts, the data affirm residents in Community Chats who reported frustration related to finding providers, especially those who are responsive to marginalized identities. Hampden County has 1,090 people for every dentist, compared to 930 in the state. Although there is greater access to mental health providers for Hampden County residents as compared to the state (100:1 versus 140:1), Community Chat participants overwhelmingly reported a perceived shortage of mental health support. This is due to the new and exacerbated mental health concerns experienced because of spending over two years in a global pandemic.

**FIGURE 12: Health Professional Shortage Areas in Hampden County for Primary Care, 2020**



**Source:** U.S. Health Resources & Services Administration <https://data.hrsa.gov/maps/map-tool>

**Note:** A higher HPSA score indicates greater shortage of providers.

### *Impact of COVID-19 on Availability and Access to Providers*

---

In a 2021 regional survey of health officials, 35% of Hampden County respondents cited the limited availability of providers as the most pressing health issue facing their community (see Appendix 4, Survey of Public Health Officials). Many other sources consulted for this report expressed concern about the shortage of providers. Several facets of the COVID-19 pandemic affected access to providers. Once the country went into lockdown to reduce transmission, most health care providers temporarily ended all non-emergency care. Many tried to pivot to telehealth, which is described in more detail below, but still had limited capacity as providers scrambled to deal with the fallout of the pandemic on their own lives.

CCIS data help us better understand the impact of the pandemic on those seeking care in 2020. Barriers reported by Noble communities served by Baystate Noble respondents included long wait times, appointment cancellations, and potential COVID-19 exposure.

- One in five respondents who sought health care during the pandemic reported not receiving care due to barriers presented by COVID-19 (21%). The rate was similar among rural respondents (21%) and respondents who primarily spoke a language other than English at home (18%).
- Almost 60% of respondents experienced delays in routine care, and one in five had delays in urgent care.
- Among respondents with a disability, one in three worried about getting needed medical care and treatment for themselves or their families.

The pandemic also resulted in a phenomenon dubbed the Great Resignation, in which millions of Americans left their jobs and were not easily replaced, resulting in massive labor shortages in some fields. Their top reasons for leaving were toxic work environments, job insecurity, high levels of innovation, failure to recognize performance, and poor response to the pandemic.<sup>71</sup> The Great Resignation placed a strain on frontline health workers and has caused staffing shortages throughout the medical system. Many sources consulted for this report expressed concern about the shortage of providers.

Several factors have contributed to the healthcare sector's employment crisis. As the pandemic ebbed and flowed, healthcare institutions saw periods of critical staffing and supply shortages; overcapacity of hospital beds and postponed elective surgeries; shifting quarantine and isolation guidance for healthcare staff; and significant mental health consequences for those seeing the impact of COVID-19 first-hand. In 2020, we saw an

increase in symptoms commonly associated with anxiety, depression, and stress among healthcare workers.

---

“... Moral distress...we talk about this in the emergency room, with situations where you know what should be done and you can’t do it...if you're in a place where there's not enough ventilators and you want to put someone [on a ventilator but can’t unless you take someone else off]...I think that that sort of thing is going to affect healthcare workers all over the country.”

*--Emergency Department Physician*

---

These factors all contributed to the tremendous strain and burnout experienced by healthcare workers that led many to leave the sector. In 2021, there were over 1,800 job openings among the top five Healthcare Practitioner and Technical Occupations employers regionally.

### *Advances in Telehealth*

---

Since the last CHNA, telehealth—the provision of care by phone, online chat, or video—has emerged as a critical way for patients to access providers. Massachusetts was already experiencing rapid growth in the use of telehealth services before COVID-19, but primarily for female patients in their 20s and 30s seeking psychotherapy.<sup>72</sup> The onset of the pandemic in early 2020 led the Massachusetts legislature to pass legislation (Chapter 260 of the Acts of 2020) to create a framework allowing for telemedicine to be delivered and reimbursed for most public and private plans on par with in-person visits.<sup>73</sup> This led many providers to quickly pivot to offer telehealth services across the board as a safer alternative to in-person care.

These changes led Massachusetts to become a major adopter of telehealth, quickly surpassing other states.

- Based on Medicare claims data, the Commonwealth was one of the top three states where telemedicine was used more than 60% of the time between March 2020 - February 2021.<sup>74</sup>
- During the same period, Blue Cross Blue Shield of Massachusetts reported a 9,500% increase in use of telehealth from the prior year for all types of visits. As noted in a previous section, 54% of those visits were focused on mental health.
- Between May 2020 and May 2021, Federally Qualified Health Centers (FQHCs) in the state conducted more than a million telemedicine visits, according to their telehealth consortium.<sup>75</sup>

It is difficult to find local telehealth data broken out demographically. The statewide FQHCs reported that close to half of telehealth patients were people of color: 52% were White, 31% were Latino/a/e, 21% were Black, 6% identified as more than one race, 5% were Asian/Pacific Islander, and 1% were Native American.<sup>76</sup>

Barriers persist that may exacerbate disparities in who receives care. Telehealth depends on access to digital technology. Geographic location and affordability of internet service are two potential factors affecting ability to use such technology. In a national telehealth study that reviewed claims data and conducted surveys of patients and clinicians,<sup>77</sup> concerns about technology access for patients was the second greatest challenge raised by health providers. More than 70% saw this as a potential barrier to care beyond the pandemic, and more than 60% also raised specific concerns about lack of digital literacy and lack of patient access to broadband internet. These concerns were highest among rural providers. Among CCIS respondents living in rural areas, almost one in four were worried about their internet access.

Cultural and linguistic barriers can also pose access issues for telehealth. In the CCIS survey, 22% of Noble communities served by Baystate Noble respondents who spoke a language other than English worried about their internet access (compared to 15% of respondents who spoke English, n=661). Respondents of color and those with a disability also were more likely to be worried about internet access compared to communities served by Baystate Noble respondents overall.

Yet telehealth also helps remove barriers. In the same national study cited above, survey data from patients (which over-represented female responses) showed high ratings for their telehealth experiences. Three-quarters said that telehealth removed transportation as a barrier, 65% appreciated not having to take time off from work, and 67% said telehealth reduced their costs compared to an in-person visit.

Key informants who provide mental health services noted that many youth are adept at using online platforms to access care and find it easier than going in person. The FQHC Telehealth Consortium leaders see positive signs in their data that telemedicine is helping reduce health inequities faced by Medicaid patients, especially patients of color. That said, they still see the need to address the digital divide in communities served by FQHCs.

Federal and state policy changes have enabled telehealth to continue beyond the pandemic. A 2021 federal law enables Medicare and Medicaid to pay for mental health visits provided by Rural Health Clinics and Federally Qualified Health Centers via interactive video-based telehealth, including audio-only telephone calls.<sup>78</sup> In Massachusetts, though all the services that can be appropriately provided through telemedicine will be required to be covered, some of the telehealth reimbursement requirements made during COVID-19 are currently set to expire. Behavioral health services are required to be reimbursed on par with in-person services permanently. However, primary care and chronic disease management telemedicine reimbursement parity is set to expire at the end of 2022.<sup>79</sup>

### Digital Equity

Digital technology and access to affordable and reliable broadband is a vital part of our society. Technology and the internet show up in every part of our daily lives: connecting with family and friends, employment, finding housing, connecting with services and health care providers, education, and much more. However, as technology grows, so does the digital equity divide, or the disparity in access to digital technologies, including limited access to devices, unaffordable or unreliable broadband, and limited technology knowledge.

A 2021 report from the Alliance for Digital Equity<sup>80</sup> examined the digital divide that exists in three western Massachusetts counties: Hampden, Franklin, and Hampshire. The report found an ongoing digital divide for residents in western Massachusetts and brought to light three barriers that exacerbate the digital divide: 1) lack of internet connectivity; 2) lack of equipment; and 3) lack of digital literacy.

Digital inequities mirror other inequities related to race, educational attainment, age, and structural poverty, and they have widened because of the pandemic. Digital equity is achieved when all people have equal access to digital equipment, access to the internet, and have digital literacy. Digital equity is vital for participation in all facets of society—socialization, employment, housing, education, and essential services. The Alliance for Digital Equity’s 2021 report found different communities in western Massachusetts are disproportionately impacted. One in three households in Blandford (28%) and West Springfield (30%) do not have a laptop or desktop computer.

### **Lack of Internet Connectivity**

- Lack of internet connectivity is the top barrier to digital equity for those living in rural areas, children, and youth, and those with limited income.
- Cost of the internet can prevent residents, especially those impacted by structural poverty, from accessing the internet. This is a growing concern with rising costs of housing, food, and transportation.

### **Lack of Technology**

- Over 1 in 5 homes in Palmer (22%) and Ware (23%) do not have a computer.
- Lack of access to digital equipment is the primary barrier to digital equity for people who are unhoused or experiencing homelessness, people with physical disabilities, Black residents, Indigenous residents, and people of color.
- Cost of the equipment is the main cause for a lack of technology.

### **Lack of Digital Literacy**

- A lack of digital literacy is the primary barrier to digital equity for older adults, people with mental, intellectual, and developmental disabilities, and people who are English language learners.

In 2022, a key informant who works with older adults spoke about the impact of the digital world on older adults in western Massachusetts. They shared how older adults had trouble accessing services and engaging in social interaction online, especially during COVID-19, because it required older adults to be digitally literate, but that they leveraged the local senior center to help with technology challenges. For those who do not know where to turn for help navigating online platforms, the digital divide may lead people to delay care or leave health issues unresolved.

### *Other Barriers to Accessing Providers and High-Quality Health Care*

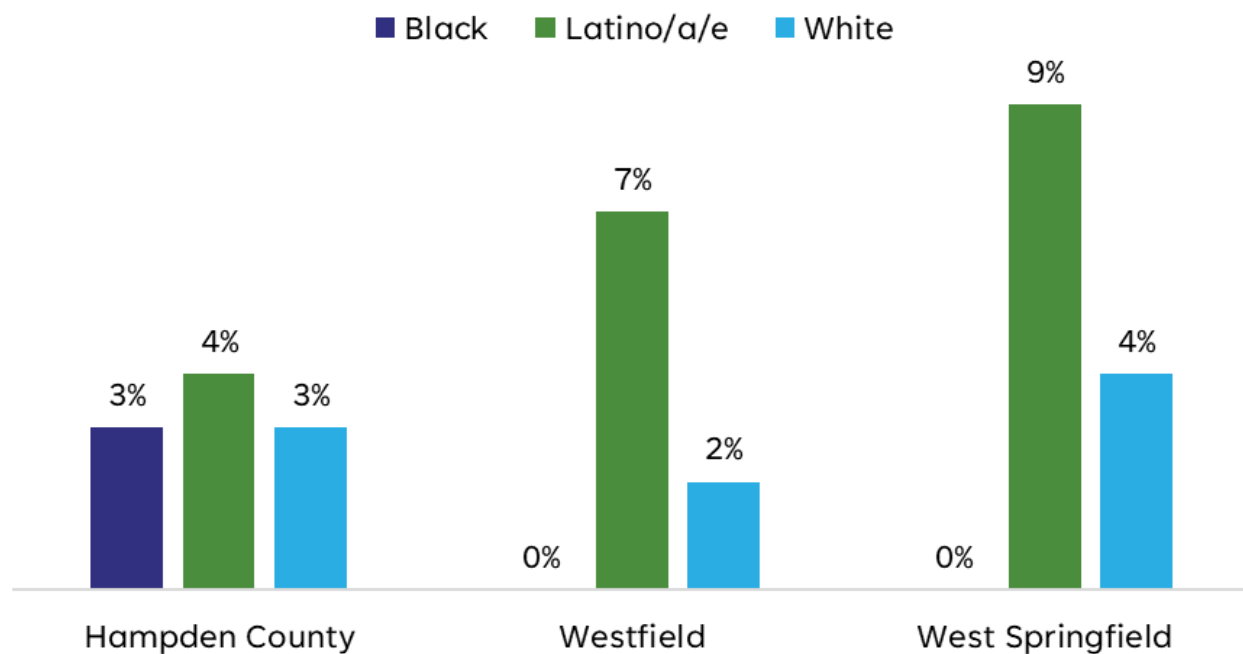
---

Numerous barriers to health care are referenced throughout this report, and they continue to be prioritized health needs. Other barriers discussed below include health insurance, need for financial assistance, need for transportation, need for culturally sensitive care, health literacy and language barriers, and lack of care coordination. In addition, key informants reported that systemic issues continue to create challenges in accessing certain types of providers.

**Health insurance is one major hurdle due to its complexity, cost, and disparities in coverage.** For example, many psychiatrists do not accept health insurance—and this may vary whether private, Medicare, or Medicaid,<sup>81</sup> in part because of low reimbursement rates, often making access prohibitive for residents who need services.

- While 97% of Hampden County residents are covered by health insurance, the proportion of uninsured in Hampden County is 15% higher than the statewide average (3.14% versus 2.72%).<sup>82</sup>
- Select cities are much higher than the statewide value; 8% of residents in Westfield and West Springfield are uninsured.<sup>83</sup>
- As seen in Figure 13, there is a large disparity in the percentage of uninsured Latino/a/e residents in Westfield and West Springfield as compared to White residents.
- More than one in three (36%) of the insured population in Hampden County are Medicaid beneficiaries, as compared to 23% statewide.<sup>84</sup>
- Westfield older adults in a focus group reported many out-of-pocket expenses and struggles to keep up with the bills, even though they have Medicare.

**FIGURE 13: Percentage of Population Uninsured, by Race and Ethnicity, Hampden County, and Selected Communities, 2015-2019**



*Source: U.S. Census Bureau, ACS, 2015-2019.*

**Financial assistance for health costs continues to be a need.** The cost of health care co-pays, deductibles, tests, and medication is a barrier for many to having optimal health, including those who are above the eligibility threshold to receive Medicaid but still earn low incomes. Beyond the costs of portions of health care that insurance does not cover, additional costs include programs, equipment, physical activities, and alternative therapies such as acupuncture that are typically not covered by insurance but are suggested by medical providers and help patients. The high cost of home care for people with disabilities impacts the quality and quantity of those services. Older adults can fall into a gap where they are too young or have too much money to qualify for services they need yet cannot afford to privately pay for these services. Older adults from a focus group shared that they do not use credit or debit cards; health care facilities refusing cash or checks makes care inaccessible for these residents.

**Transportation has been consistently identified as one of the top barriers to accessing medical care** in previous CHNAs and continues to be a large barrier. Public health officials and other informants indicated that transportation to get to medical appointments is a particularly complicated issue for children and adults living with disabilities, older adults,

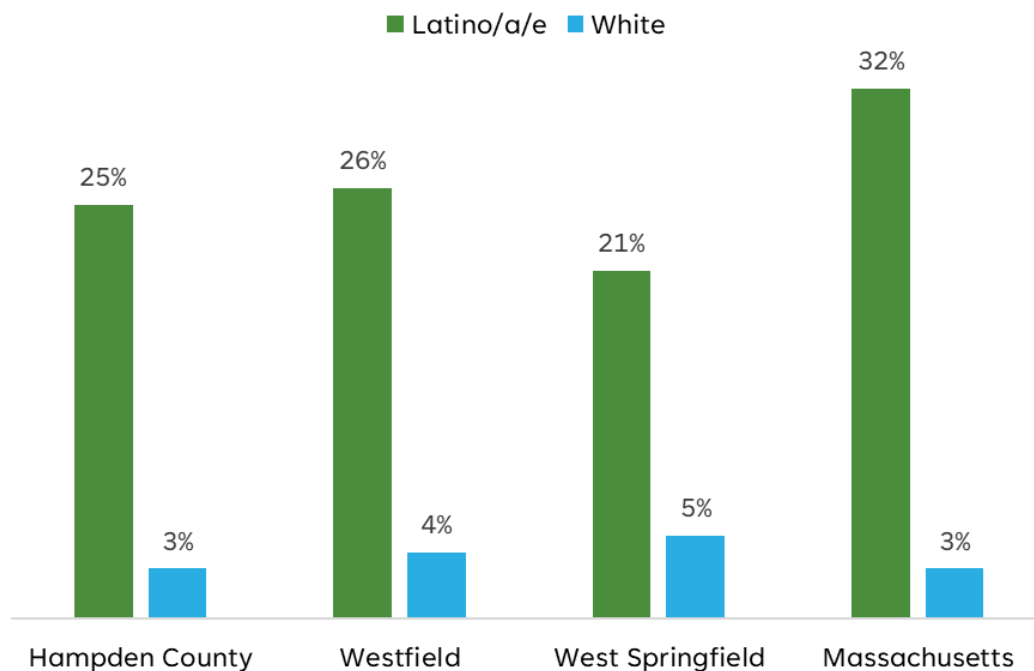
and low-income populations. Telehealth offers one potential avenue to overcome this barrier for some types of care. Senior center focus group participants share that one resident still drives, so they provide transportation for others. They are aware of companion programs that may also provide services.

**Disconnected care systems are hard to navigate.** Lack of care coordination is a prioritized community health need, as it was in the 2016 and 2019 CHNAs. Care coordination refers to the coordination of patient care, including the exchange of information between all parties involved in patient care. Older residents report trouble when calling their doctor's office: either there are automated messages that may be confusing, or it proves difficult to get through to a person who understands what they need. One resident shared that instead of navigating the phone system, they drive to the office to reach someone. Further, older adults expressed those general providers sometimes seemed impatient, forcing patients to strongly advocate for themselves, for fear of being ignored. Instead, they suggested separating out gerontology providers who understand the population's unique needs. The difficulty in understanding what health insurance will cover and navigating the medical care systems continue to be barriers to accessing high-quality health care. People experiencing homelessness face unique challenges accessing providers or having a consistent "medical home." This causes many unhoused patients to seek care in EDs, because they have no alternatives. Community Chat participants praised the role of community health workers (CHWs) as an important asset to the community and asked for greater collaboration across agencies to foster healthier populations.

**Diverse culturally and linguistically competent providers are in short supply.** Community Chat participants from across the Pioneer Valley shared a desire for more culturally and linguistically competent providers as well as those who are well-versed in providing care for transgender individuals, people with larger bodies, and those who may be immigrants or refugees. Further, residents expressed a need for more providers who reflect communities of color. Related to the need for culturally sensitive care is the need for care that is language appropriate. Language barriers can create multiple challenges for both patients and health care providers and was identified as a need in the 2019 CHNA. Increasing availability of interpreters as well as translation of health materials are specific actions that health care institutions can take to help address this barrier. When populations cannot find providers who speak their language or offer simultaneous interpretation services, this can create barriers to accessing health care, understanding their provider, and achieving health literacy. Health literacy is the capacity for an individual to find, "communicate, process, and understand basic health information and services to make appropriate health decisions".<sup>85</sup>

- The refugee and immigrant populations in Hampden County makes for an increasingly diverse linguistic population. In Hampden County, 9% of the population 5 years of age and older have limited English proficiency (LEP), which is the same as the statewide proportion.<sup>86</sup>
- As shown in Figure 14, 26% of the population who identify as Latino/a/e have LEP in Westfield, compared to 4% of the population who identify as White. Similarly, 21% of Latino/a/e residents of West Springfield have LEP compared to 5% of their White counterparts.<sup>87</sup>

**FIGURE 14: Population 5+ with Limited English Proficiency by Ethnicity Alone, Hampden County and Selected Communities, 2015-2019**



*Source: U.S. Census Bureau, ACS, 2015-2019. Source geography: Tract.*

The 2019 Noble CHNA reported that many immigrants and refugees in the communities served by Baystate Noble would travel to Caring Health Center in Springfield (outside of the communities served) for their care because the CHC was known for serving that population well. TransHealth of Northampton reports having patients from many cities throughout the region and from the Noble communities served by Baystate Noble, including Springfield, West Springfield, and Westfield.

### *Healthcare Workforce Challenges*

---

This sector has been heavily impacted by the ongoing COVID-19 pandemic since the last CHNA in 2019 when residents felt there was a limited availability of providers, and people in public health saw issues recruiting and retaining physicians. As the pandemic ebbed and flowed, healthcare saw periods of critical staffing and supply shortages, overcapacity of hospital beds and postponed elective surgeries, shifting guidance for health care staff quarantine and isolation, and significant mental health consequences for those seeing the impact of COVID-19 first-hand.

#### **Staffing and Supply Shortages**

In November 2021, the Baker-Polito Administration released guidance for hospitals, instructing hospitals to reduce elective services and procedures to maintain space for urgent needs.<sup>88</sup> During peak COVID-19 shutdowns, Healthcare Practitioners and Technical Occupation had the greatest increase in Unemployment Insurance claims compared to the pre-COVID period of the week ending January 4, 2020 (increase of 1,919% followed by Education, Training, and Library Occupations at 1,850% and Food and Serving Occupations at 1,564%). This may be partially attributable to the prioritization of care, thereby leaving staff who primarily work in postponed care areas without cases. In the Pioneer Valley, unemployment claimant composition has shifted compared to pre-COVID times, and individuals are more likely to be employed in personal care services (8% compared to previous 6%) or healthcare support (doubled from 3% of claimants to 6%).

Simultaneously, there were staffing shortages during peak periods characterized by an influx of COVID-19 cases and related health challenges. To mitigate understaffing throughout the pandemic, the governor of Massachusetts activated members of the National Guard, allowed healthcare workers (HCWs) with out-of-state licenses to obtain temporary MA licenses, and ordered that HCWs who held a lapsed/expired license to practice within the past 10 years could immediately reinstate upon request. As hospitals were scrambling for nurses and other healthcare professionals, they were also in need of personal protective equipment (PPE), such as N95 masks, gowns, and eye protections, to minimize exposure to infection.

---

“... [B]ecause there was no coordinated federal response, we were bidding against other hospitals, bidding up the price of PPE...in this super dysfunctional way...there are times when capitalism really doesn’t work, and this is one of them.”

*Hospital Doctor, Key Informant Interview*

---

As of February 2022, hospitals are operating at over 90% inpatient capacity statewide, according to the Director of the Bureau of Health Care Safety and Quality.

### **Mental Health Concerns**

Healthcare workers in the U.S. have historically had high rates of stress, burnout, and suicide related to their professions. An emerging concern related to workforce shortages in the healthcare sector is the current and long-term mental health effects for HCWs. In 2020, an increased prevalence of symptoms commonly associated with anxiety, depression, and stress among this population was already present. Not only were they experiencing the pandemic in their personal lives, but they were also seeing the morbidity and mortality at work and forced to ration supplies at times. The lack of a coordinated federal response and politicized public health measures may leave HCWs juggling heavy workloads and their own emotions and experiences for longer than necessary.

---

“...my [own] sobriety has probably never been shakier than it has been during this time....I ...drove by a package store for 45 minutes. Back and forth having conversations in my head, ‘Who will know? What does it matter?’ Luckily, I was up to the task, and it was just...a waste of gas and time, but I can definitely understand people with less momentum [with recovery] struggling even harder, because I wasn’t reaching out and asking for help. I haven’t been going to in-person meetings, so I don’t get to see these people and let them know how I’m doing either.”

*Opioid Use Disorder Treatment Coordinator in Western Massachusetts*

---

### **Future of the Industry**

Regional employment data continues to indicate the importance of healthcare professions and strengthening the pipeline to this industry will be an ongoing priority. In 2021, there were over 1,800 job openings among the top 5 Healthcare Practitioner and Technical Occupations employers regionally; this is an opportunity for partnership and collaboration. There were promising graduation rates for healthcare degree programs in the area that will help to satisfy demand or mitigate supply gaps. In the 2019-2020 academic year:

- 154 graduates with Associate Degree (AD)-Nursing at three community colleges (Registered Nurse supply gap ratio of 0.05).
- 35 graduates from AD programs in Radiologic Technology at Holyoke Community College (HCC) and Springfield Technical Community College (STCC).
- 17 graduates from Dental Hygiene AD program at STCC; and
- 13 graduates with ADs in Respiratory Care from STCC.

**Resources to Increase Access and Availability of Providers**

- Baystate Health Better Together funding is helping community partners create education and training pathways in the health sector to alleviate shortages. Springfield Technical Community College (STCC) and Westfield State University (WSU) created a dual enrollment program with RN-to-BSN (Bachelor of Science in Nursing) program, which is more affordable and convenient than previous options.
- Hospitals typically have an online resource and/or office that assists patients with finding the right provider and accessing insurance if needed.
- Another tool available in Hampden County is 413Cares, an online database with community resources of all different types. Residents who need help finding a health care provider can visit [www.413Cares.org](http://www.413Cares.org) and search for “health care” in/near their zip code.
- There are also many health care referral agencies, which are listed in Section 9 Resources), as well as agencies that serve individuals who are unhoused and can help them access health care.
- Recent innovative efforts to triage care for residents without stable housing offer a model to improve access to health care providers while reducing the strain on EDs, which have been periodically overwhelmed with COVID-19 cases.

## 6c. Deeper Dive: Access to Basic Needs

Lack of access and resources to meet basic needs continues to be a prioritized need for the communities served by Baystate Noble. Access to and affordability of basic needs such as housing, food, and transportation are key building blocks of health. Taken together, they may account for most of one's expenses. People with limited resources often must make trade-offs in meeting these basic needs that may lead to avoidable health risks that become unavoidable because of inequities in our economic system. Older adult focus group participants on MassHealth reported spacing out necessary medical appointments so they could afford to eat.

Communities in Hampden County differ in terms of population density and infrastructure. Access to and availability of basic needs varies from rural communities to the urban core. Average income and wealth also vary tremendously across the communities served by Baystate Noble, and even within the same municipality, affecting residents' ability to access and afford housing, food, and transportation. These inequities are partly due to historical factors such as policy choices that exacerbated poverty and inequality and led to disinvestment in rural communities and urban communities of color; and present-day forces, including the COVID-19 pandemic.

The impacts of the pandemic on basic needs are discussed throughout this section. Overall, the pandemic spurred major supply shortages across the economy, contributing to the first major rise in inflation in decades, all at a time when many people's jobs became precarious, contributing to economic strains and uncertainties. For example, in Hampden County, unemployment rates jumped from 4% in March to 18% in April 2020. Many of the community leaders who participated in focus groups and Chats for this CHNA mentioned concerns about access to and affordability of basic needs. The ongoing impact of inflation across the nation may be a barrier for residents in the Noble communities served by Baystate Noble as the cost of goods increases far beyond wage increases.

### *Housing and Shelter*

---

Many of the housing challenges that existed when the last CHNA was written persist today. Thirty-five percent (35%) of households in Hampden County qualify as housing-cost burdened, meaning they spend 30% or more of their income on housing, compared to 27% in Westfield and 34% in West Springfield (see Figure 15). A Greater Springfield Regional Housing Analysis published by the UMass Donahue Institute in 2021 found that housing cost burden was greater for people of color in the Pioneer Valley compared to White people. According to the report, this is likely due in part to much lower increases in

median income among Black and Latino/a/e residents compared to White people (increase in median income from 2013 to 2018: White 20%, Black 7%, Latino/a/e 10%). A greater proportion of people of color in Hampden County rent than own. A Community Chat participant shared that “if you don’t have a green card, it’s hard to rent an apartment.” This report also found that foreclosures continue to occur in far greater numbers in Hampden County than in other western Massachusetts counties.

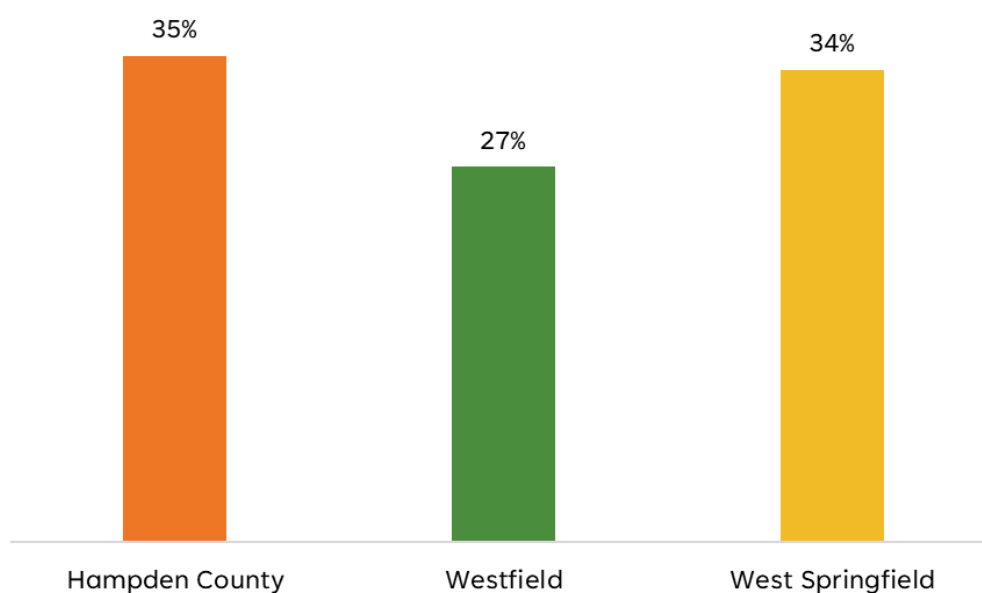
---

“I think housing is just a crisis  
all the way around.”

*Community-based Provider, Focus Group on Access to Basic Needs*

---

**FIGURE 15: Percent of Cost-Burdened Households, Hampden County, and Selected Communities, 2015-2019**



**Source:** U.S. Census Bureau, ACS, 2015-2019

Unaffordable housing correlates with a greater-than-average prevalence of homelessness—a situation that has worsened during the past decade. Between 2010 and 2019, homelessness increased three-fold in Hampden County from 843 persons counted in 2010 to 2,443 in 2019. Of those, the majority (2,070) were people in households with adults and children. The U.S. Department of Education reports that 4.2% of public-school students in Hampden County are homeless—a rate 50% higher than that of the state and four times greater than that of neighboring Hampshire County.

---

“My folks are all on either SSDI or SSI. And, you know, now they’re raising rents to like \$1,200 and...they can’t afford it. And we do have some DMH [Department of Mental Health] subsidies, but they’re even difficult now to attach to these apartments because the rate of the apartment is too high to attach our subsidies to, so that’s a whole ‘nother stumbling block. So it’s quite a crisis. It really is quite a crisis.”

*Community-based provider, Focus Group on Access to Basic Needs*

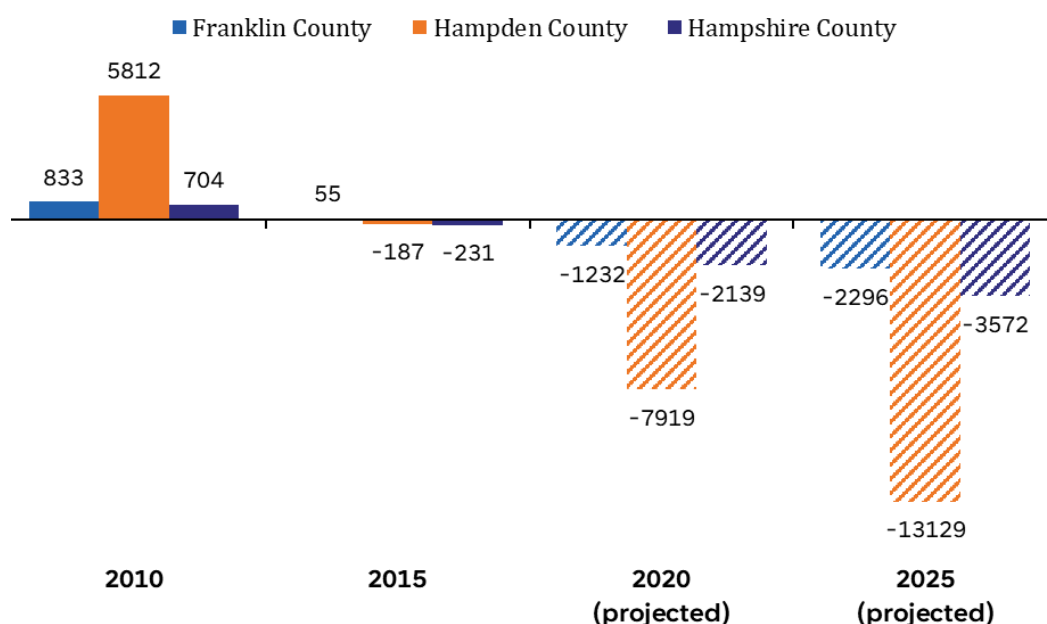
---

A Point of Time count led by the City of Springfield Office of Housing in January 2019 identified 14 unhoused individuals in West Springfield and 47 people in Westfield.<sup>89</sup> Of note, this method is imperfect but provides a sense of how many individuals do not have stable housing. Less than one-third of each city’s unhoused population were in transitional housing; all others were unsheltered, in emergency shelters, or in safe havens.

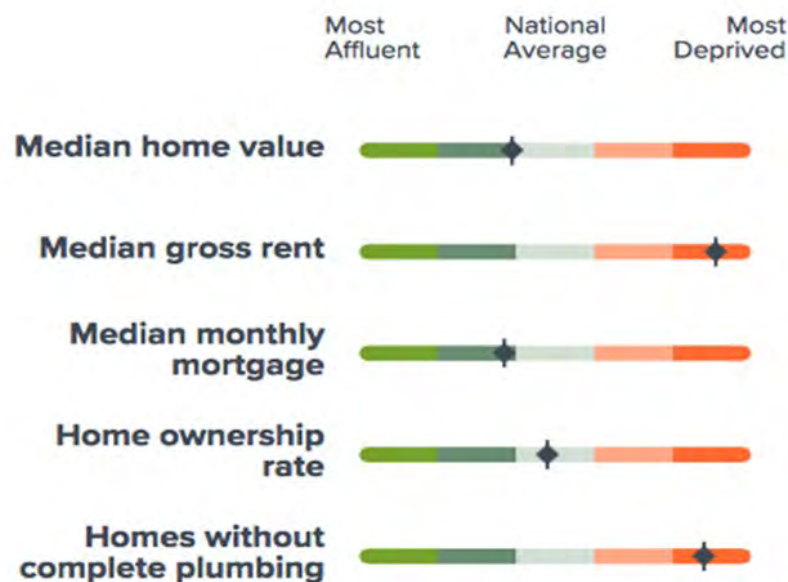
People of color are overrepresented in the Hampden County homeless population, according to the point-in-time estimate. Black individuals constitute 19% of the homeless population but only 8% of the county. Fifty-three percent of unhoused individuals in Hampden County identify as Latino/a/e, whereas Latino/a/e residents make up 26% of the county population. White people are proportionately represented among the homeless (57% compared to 60% of the Hampden County population).

The COVID-19 pandemic has contributed to housing challenges. Most directly, the pandemic has correlated with a general increase in housing prices that has moved homeownership—a common vehicle for wealth-generation—out of reach for many. In 2021, home prices in Hampden County rose almost 14%. Supply was constrained by reluctance to sell during the pandemic and higher home construction costs, and demand grew as the option to work remotely allowed people to live farther from their employer. The UMass Donahue Institute projects a housing gap of over 13,000 units in Hampden County by 2025 (Figure 16).<sup>90</sup> In addition, the pandemic led to a sharp rise in unemployment and has destabilized many people's finances, affecting their ability to make rent and mortgage payments (Figure 7). As seen in Figure 17, rent prices are higher than the national average and there are more homes in the communities served by Baystate Noble than the country without complete plumbing, although it is only 0.1% of occupied units.

**FIGURE 16: Projected Housing Unit Gap by County, 2010-2025**



**Source:** Graph created with data from UMass Donahue Institute Housing's Greater Springfield Housing Analysis, based on ACS one-year housing unit estimates (2010-2018) and five-year population estimates (2014-2018). Shaded areas are projections.

**FIGURE 17: Housing Data for the Communities Served by Baystate Noble**

**Source:** Indicators Comprising the Area Deprivation Index for Census Block Groups (Broadstreet 2021)

Half of the CCIS respondents from communities served by Baystate Noble, and 42% of rural area respondents, were worried about paying one or more of their upcoming expenses when the survey was administered early in the pandemic. This worry was more common among respondents of color (63%), and especially for Latino/a/e residents (67%). This concern was also common among younger adults (25 to 34 years), LGBTQIA+ respondents, those with a disability, those who speak a language other than English at home, respondents with a household income less than \$75,000 a year, and respondents with less than a bachelor's degree. Almost 34% of Noble area respondents worried specifically about paying their housing-related and/or utility expenses, as did 28% of rural respondents.

In addition, as noted in previous CHNAs, the housing stock in Hampden County is relatively older. Older housing combined with limited resources for maintenance can lead to problems (such as mold, pest/rodent exposure, exposure to lead paint, asbestos, and lead pipes) that affect asthma, other respiratory illnesses, and child development.<sup>91</sup> An estimated 38% of housing in Hampden County was built before 1949.<sup>92</sup> Several communities are also among high-risk communities for childhood lead poisoning, including Westfield.

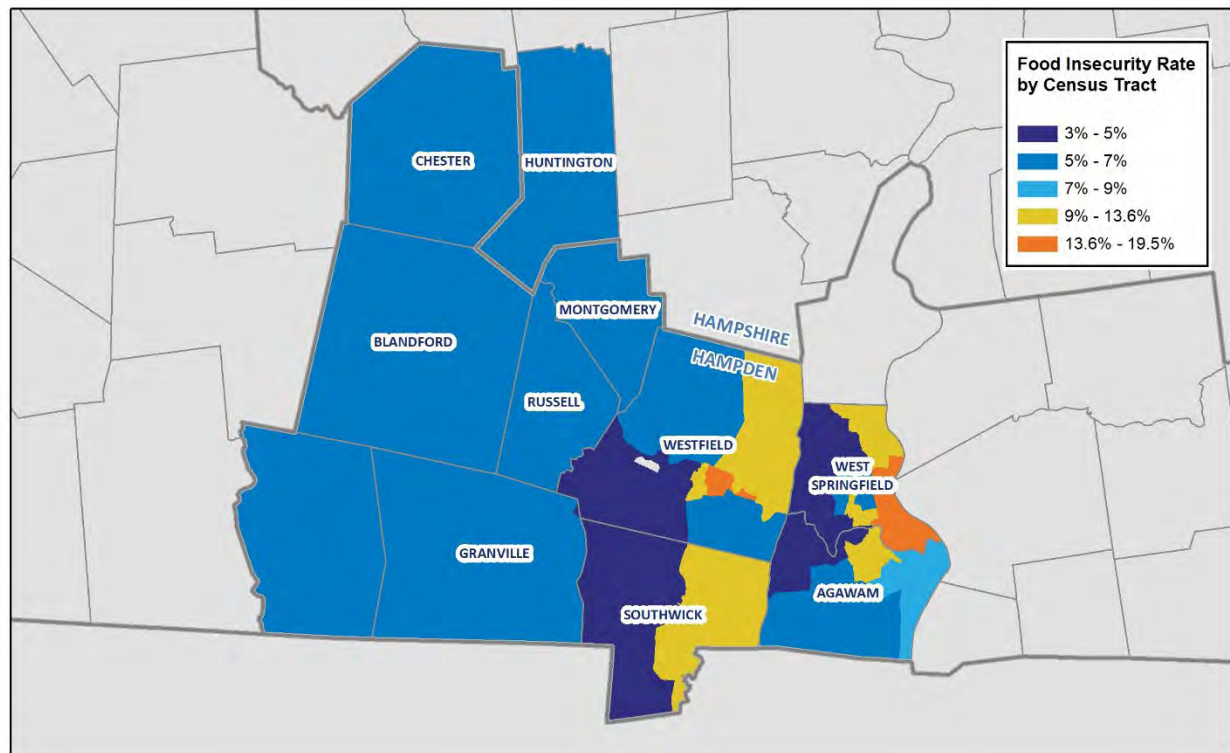
### *Food Access and Security*

---

Access to healthy, nutritious food continues to be a prioritized need in Hampden County and across the region. Eating nutritious food promotes overall health and helps manage many chronic health conditions. However, not all individuals and communities have equal access to healthy food. Food insecurity or being without reliable access to sufficient affordable and nutritious food, continues to impact many in the Noble communities served by Baystate Noble. The highest rates of food insecurity appear in parts of Westfield and Springfield with rates between 13.6% and 19.5% (Figure 18). Older adults in the communities served by Baystate Noble reported frustrations with food prices and they use sales, gardening and baking, canning, and meals provided at the local senior center to make it more affordable. A key informant serving residents with limited income shared that their clients benefitted from local farm donations.

Although the rate of fast-food establishments per capita has fallen between 2013 and 2019, parts of the Noble communities served by Baystate Noble, particularly sections of West Springfield and Westfield, are still considered food deserts by the USDA.<sup>93</sup> These are areas where grocery stores and other options to purchase healthy foods are far away and difficult to access for people who either do not own a vehicle or where public transportation is limited.

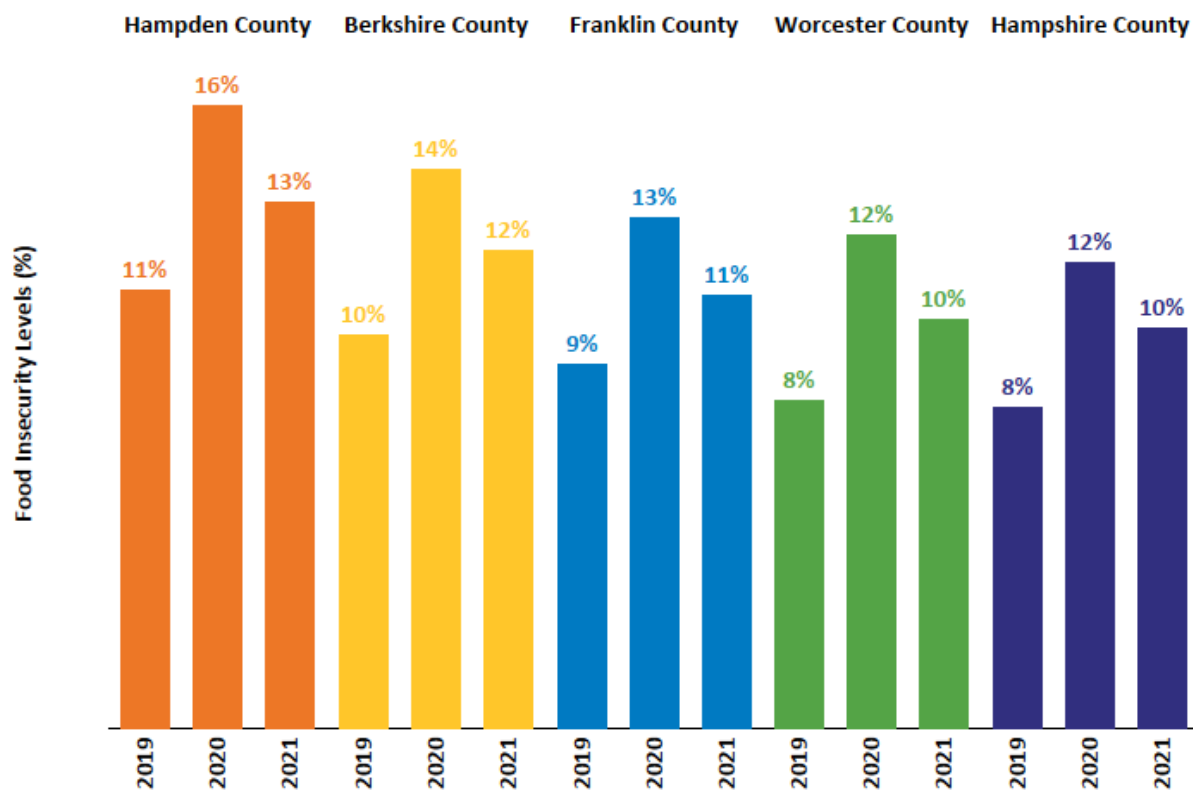
People with limited incomes and people of color are more likely to live in food deserts for several reasons. In part, this is because historical planning decisions, such as redlining and urban renewal, created highways that split cities, separated White areas from Black areas, and led to disinvestment in communities of color.<sup>94</sup> Food costs may be higher for nutritious foods in these neighborhoods.<sup>95</sup> Additionally, marketing of fast food, junk food, sugary drinks, tobacco, and alcohol more often targets communities of color.<sup>96</sup>

**FIGURE 18: Food Insecurity in Communities Served by Baystate Noble (2019)**

**Source:** Gundersen, C., Strayer, M., Dewey, A., Hake, M., & Engelhard, E. (2021). *Map the Meal Gap 2021: An Analysis of County and Congressional District Food Insecurity and County Food Cost in the United States in 2019*. Feeding America. <https://map.feedingamerica.org/>

State data on consumption of fruits and vegetables and obesity rates show that rural areas of the county have had healthier behaviors than the county. Newly accessible rural data for rural clusters allow us to better understand health in rural areas. Though not as current as other data sources for this report, they provide an understanding of health among our rural residents.

- Previous data (2011-2015) from the state show that Hampden County residents consumed fruits and vegetables at a lower rate than the state's population did.
- However, people living in rural clusters within Hampden County (North Quabbin, Central Pioneer Valley, and the Hilltowns) consumed fruits and vegetables at a rate like or greater than the state's general population.
- Previous data (2011-2014) from the state show that the prevalence of obesity was higher in Hampden County (28.8%) than the state (23.6%). The rural clusters within Hampden County did not exhibit a similar elevated prevalence of obesity.<sup>97</sup>

**FIGURE 19: Food Insecurity by County, 2019–2021**

**Source:** Gundersen, C., Strayer, M., Dewey, A., Hake, M., & Engelhard, E. (2021). *Map the Meal Gap 2021: An Analysis of County and Congressional District Food Insecurity and County Food Cost in the United States in 2019*. Feeding America.

<https://map.feedingamerica.org/>

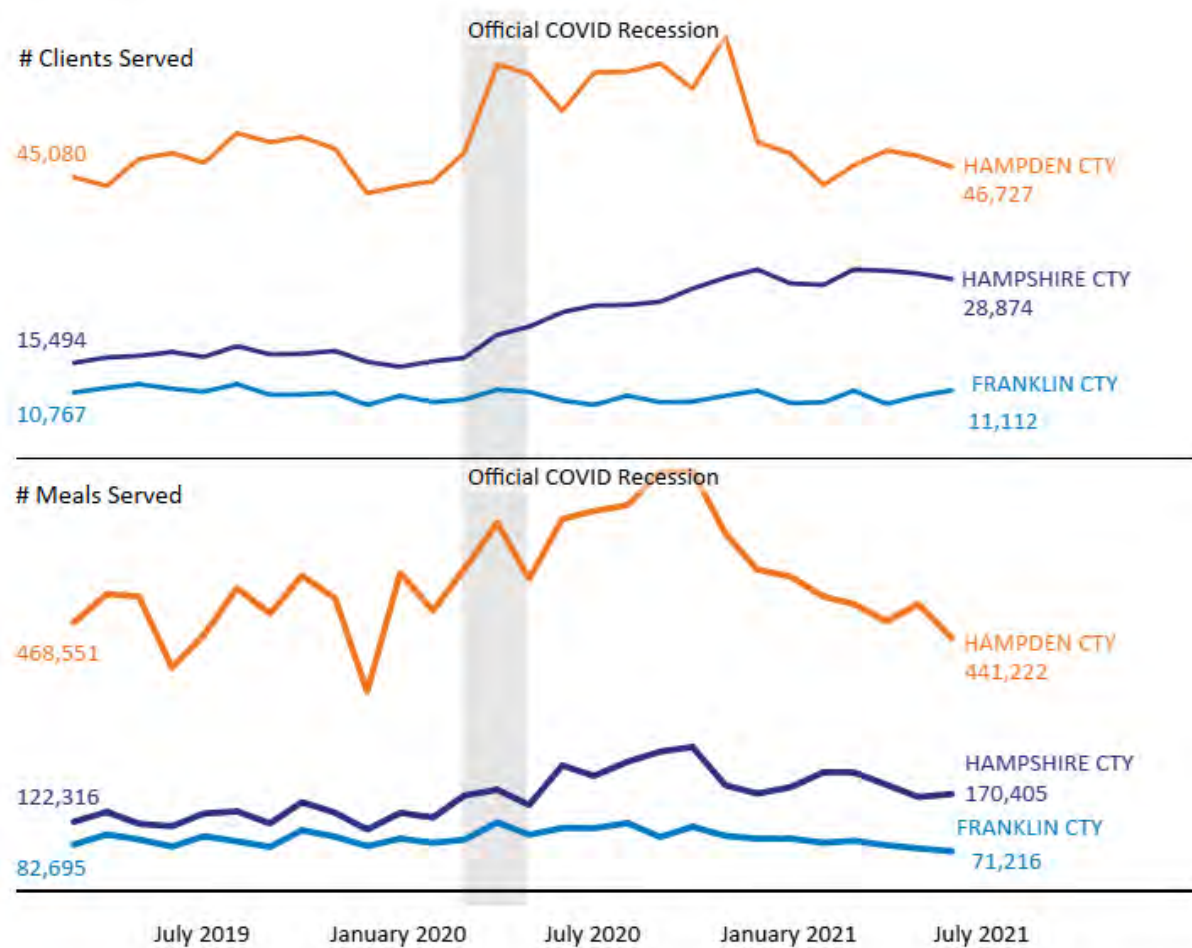
Food insecurity rates had declined slightly since the last CHNA, but during the COVID-19 pandemic, the problem got worse. Food insecurity grew in 2020, reflecting the financial hardships faced by families throughout central and western Massachusetts. Between 2019 and 2020, Feeding America, a national non-profit organization, estimates that food insecurity increased by 40% in Franklin County, 42% in Hampden and Berkshire counties, 45% in Hampshire County, and 50% in Worcester County. In 2020, one in seven Hampden County residents were classified as food insecure.<sup>98</sup> By 2021, that figure had fallen, but was still higher than the pre-pandemic level (Figure 19).

CCIS data illustrate the disparate impacts of COVID-19 on food access. In Fall 2020, one in three Noble communities served by Baystate Noble respondents were worried about getting food for themselves and their family. A greater proportion of respondents of color reported worrying about getting food compared to White respondents (40%, 27%

respectively). This concern was also higher among respondents with household incomes below \$35,000 per year (45%).

The Food Bank of Western Massachusetts played a key role distributing food during the COVID-19 pandemic, with significant increases in both the number of people served, and the number of meals served. Across the three counties of the Pioneer Valley, tens of thousands of families have relied on food from food banks to meet their food needs during the COVID-19 pandemic<sup>99</sup>. The Food Bank of Western Massachusetts distributes meals in several cities and towns in the Pioneer Valley. Since March 2020, each month they have provided on average 877,000 meals to 91,000 clients, peaking at 1.1 million meals provided in October 2020 (Figure 20).

**FIGURE 20: Food Bank of Western Massachusetts, Clients and Meals Served, 2019-2021**



**Source:** Food Bank of Western Massachusetts

The Supplemental Nutrition Assistance Program (SNAP) allows people with limited incomes to apply for an Electronic Benefits Transfer (EBT) card to purchase food. Though SNAP is a useful program, a basic needs focus group participant shared that the allotted amount of money is no longer sufficient for many, due to rising food costs. Further, undocumented immigrants and Temporary Protected Status holders are excluded from SNAP.

### **Transportation**

Transportation is important for many facets of life, including going to work, going to the doctor, getting groceries, and engaging in social activities. People who do not have access to transportation may have a tough time meeting these basic needs. Since the 2013 CHNA, transportation has continued to be identified as one of the largest barriers to medical care.

As identified in the previous CHNA, unequal access to appropriate transportation options exacerbates racial and ethnic health disparities. Communities of color and those with limited incomes have less access to transportation options compared to communities that are majority White and higher income.<sup>100</sup> Eight percent of homes in the Noble communities served by Baystate Noble do not have a motor vehicle.<sup>101</sup> Public transportation plays a significant role in filling transportation needs for many of these households. The Pioneer Valley Transit Authority (PVTa), the region's public transportation administrator, reports that 62% of their ridership is non-White.<sup>102</sup> This means people of color are more likely to be affected by the underfunding of public transportation, as well as changes to service schedules and fare rates. For the communities served by Baystate Noble, the PVTa primarily connects the communities of West Springfield, Westfield, and Feeding Hills to the Greater Springfield area. However, there are limited public transportation options available that connect communities within the communities served by Baystate Noble.

The COVID-19 pandemic has undoubtedly exacerbated problems of access to transportation. According to a report by the Bureau of Labor Statistics, the price of used cars increased by 40.5% in the 12 months between January 2021 and January 2022. Fuel costs have increased by 46.5% over the same period.<sup>103</sup> As a result reliable transportation has become less affordable for many. In 2020, PVTa ridership declined.<sup>104</sup>

### *Resources to Help Meet Basic Needs*

---

In addition to the Food Bank and its network of food pantries, the expansion of SNAP and Healthy Incentives Program (HIP), which enables access to CSA<sup>105</sup> shares and farmers markets, have provided more options for affordable healthy foods while simultaneously helping farmers increase their sustainability.

- Baystate Health's Better Together grants program has funded The Food Bank of Western Massachusetts to collaborate with Westfield Food Pantry (WFP) in its Food Insecurity Screening and Referral Initiative (FISRI). FISRI is a partnership approach between community health centers, The Food Bank, social service organizations and the state MassHealth Flexible Services program. Through this initiative, health centers screen patients for food insecurity and refer those found food insecure to Food Access Referral Coordinators (FARCs). FARCs then coordinate the delivery of food and wraparound assistance services. Such services include transportation, education, housing, childcare, and more. While this model is effective for those who visit health centers, not all those in need interact with health care providers. As a result, the Food Bank and WFP are expanding the current model by establishing a FARC at WFP. By expanding the referral model into pantry services, the project will evaluate the efficacy of expanding access points for the food insecure to receive one-on-one wraparound support services case management.
- Many CSAs and farmers markets have already or are attempting to expand into the fall and winter months. Food advocates mentioned the Department of Transitional Assistance (DTA) finder for HIP as user friendly and helpful to find what else is available for community members and what is in walking distance.
- Two online databases to look for resources related to basic needs are:
- Three online databases to look for resources related to basic needs are:
  - **413 Cares**—The Food Bank of Western Massachusetts is a featured partner. <https://www.413cares.org>
  - **Look4Help** - [www.look4help.org](http://www.look4help.org)
  - **Find Help** – A free service to search and connect to support. Financial assistance, food pantries, medical care, and a multitude of other free or reduced-cost help can be found: [www.findhelp.org](http://www.findhelp.org)

- *An Act Relative to Work and Family Mobility*: new legislation will allow Massachusetts residents to apply for a standard state driver's license starting July 2023, regardless of immigration status, thereby increasing transportation access for undocumented residents.

## 6d. Other Prioritized Health Needs

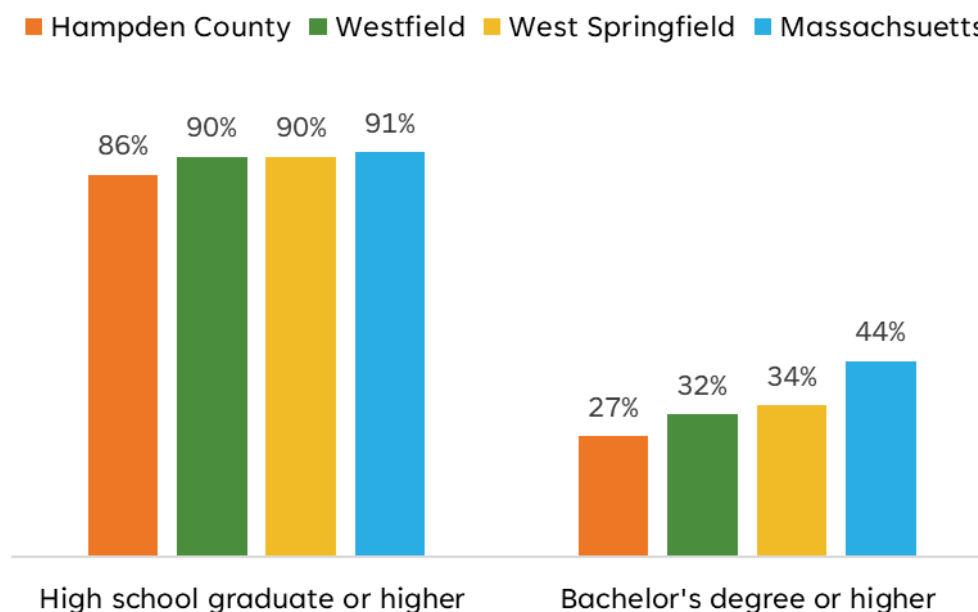
### *Social and Economic Determinants that Influence Health*

---

#### **Educational Attainment**

Educational attainment is a building block for health as it contributes to employment opportunities, sufficient resources to meet basic needs, health literacy, and access to physically safe jobs. Levels of education are strongly correlated with employment status, the ability to earn a livable wage, and many health outcomes.<sup>106</sup> Rural residents, on average, tend to be less wealthy and have lower educational attainment than urban and suburban residents.<sup>107</sup> Because public school funding is so tightly linked to property taxes and student enrollment, rural districts may end up underfunded. Declining populations of school age children combined with high operating and transportation costs have forced many rural school districts to consider cost cutting measures.<sup>108</sup> These may include scaling back education enrichment, closing schools, or merging with other districts. Communities of color have long faced systemic barriers to education. Historically, Jim Crow laws racially segregated school systems, and schools for Black children were neglected and under-resourced, which has documented impacts on health inequities.<sup>109</sup> Inequitable funding for public schools and residential segregation perpetuates educational disparities today. Overall, 91% of people in the Noble communities served by Baystate Noble graduated high school which mirrors the state rate.<sup>110</sup> Figure 21 shows that a smaller proportion of residents in Westfield (32%) and West Springfield (34%) has a bachelor's degree compared to the state overall (44%).

**FIGURE 21: Educational Attainment, Hampden County, and Selected Communities, 2015-2019**



*Source: U.S. Census Bureau, ACS, 2015-2019.*

### Need for Financial Health

Financial health is a measure of how one's financial and economic resources can support their physical, mental, and social well-being.<sup>111</sup> Financial resources that impact health include amount of savings, money set aside for retirement, proportion of income spent on daily living, among others. Financial health describes how well a person's finances support their ability to be healthy every day and in the future. This section includes three indicators: savings, homeownership, and financial literacy. Unfortunately, there is not adequate local data available, so we use national, statewide, and when possible local data.

**Saving money** can help with financial security and can provide a safety net in case of an emergency. In 2019, the median amount of savings in the U.S. was \$5,300, down from \$7,000 in 2016.<sup>112</sup> The median is often used to describe savings because it is a more accurate approximation of what most Americans have saved, as the average (mean) is heavily skewed by high-income outliers. Rural communities tend to have higher rates of concentrated poverty than more densely populated regions,<sup>113</sup> suggesting that individuals may have more difficulty saving money for emergencies if daily expenses drain their

income. Black and Latino populations have average savings account balances of \$1,500 and \$2,000, respectively. Both of which are lower than that of White populations (\$8,100).<sup>114</sup>

**Homeownership** for many, is the primary way to build wealth and has the potential to be more stable than renting.<sup>115</sup> In the communities served by Baystate Noble, 70% of people own their home and 30% rent.<sup>116</sup> The median gross rent is \$953 per month.<sup>117</sup> Historically, redlining lending practices, racial discrimination related to mortgage acquisition in the GI bill, and higher incidence of predatory lending in communities of color have denied Black and Latino/a/e communities the ability to create stability and generational wealth via home ownership.<sup>118,119</sup>

**Financial literacy** is having the skills and knowledge to manage personal finances so that a person can fulfill their goals.<sup>120</sup> It includes the knowledge to understand financial choices and the ability to make informed decisions and to take effective actions, such as planning, spending wisely, saving for retirement, paying for a child's education, and managing challenges associated with life events such as a job loss. For example, individuals need to understand how to balance income and expenses, comprehend personal income taxes, and understand the concept of budgeting to make wise decisions with money.<sup>121</sup>

- Average consumer debt in Massachusetts was \$115,671 in 2020, higher than any other state in New England.
- Massachusetts families had on average a credit card balance of \$6,213 in 2019.<sup>122</sup>
- Massachusetts had over 2,600 bankruptcy filings in 2019.<sup>123</sup>

A 2021 report from the State Treasurer's Office<sup>124</sup> found, of the districts for which they have data:

- 73% do not require schools to teach any form of personal financial literacy (PFL),
- 60% do not offer PFL electives, and
- less than one-third offer PFL instruction in elementary or middle schools.

Since the last CHNA, the governor of Massachusetts signed Senate bill 2374 into law in 2019, adding financial literacy standards in K–12 education.<sup>125</sup>

---

## MAKING THE CASE TO DROP THE USE SOCIAL DETERMINANTS OF HEALTH (SDOH)

Acting to address social influences on physiological, psychological, and behavioral health requires a complete understanding of complex health-related social influences (socioeconomic environment and well-known psychosocial risk factors) on health. The commercialized term “social determinants of health” oversimplifies complex and intersecting environmental, economic, and social influences, thus it is relatively meaningless. Let’s stick with “social influences of health” and then explain with specific detail what we mean.

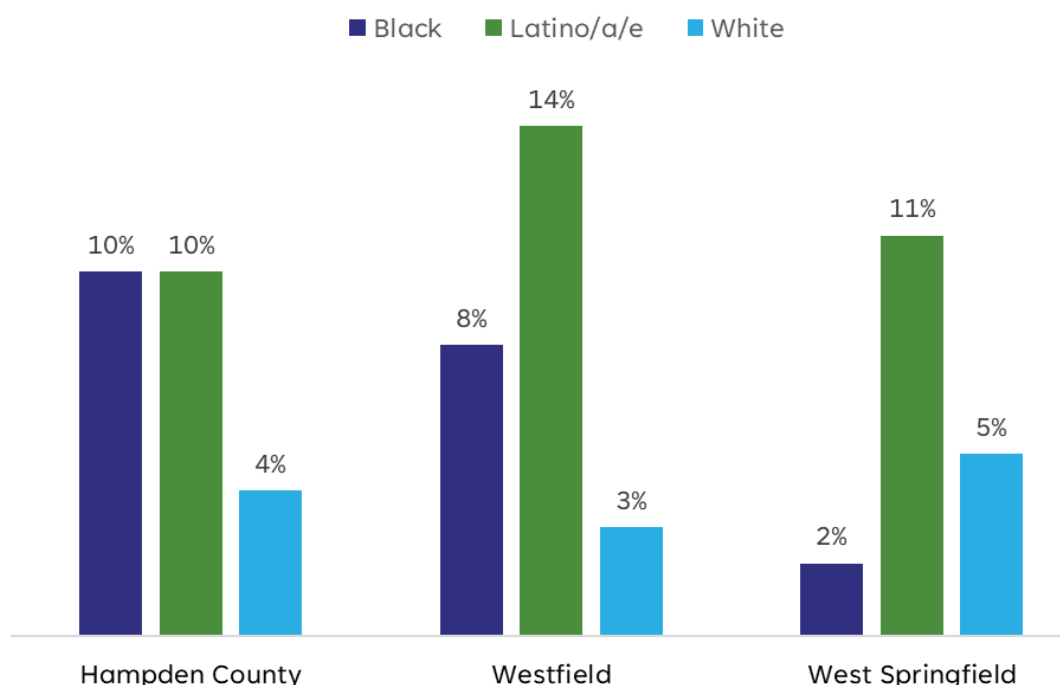
*Frank Robinson, Ph.D., Vice President, Public Health, Baystate Health*

---

### Employment and Income

In the communities served by Baystate Noble, many residents struggle with a lack of resources to meet basic needs. Parts of Hampden County have high rates of poverty and low levels of income. The connections between poor health and poverty, low levels of income, and access to fewer resources are well established. People with limited incomes are more likely to be negatively impacted by chronic stress associated with challenges in securing necessities that support health, such as housing, food, and access to physical activity.

- As of December 2021, the unemployment rate in Hampden County was 5%, compared to less than 4% in Massachusetts overall.<sup>126</sup>
- The pre-pandemic unemployment rate for White populations in Hampden County was 4%, compared to almost 10% for Latino/a/e and Black populations (see Figure 22).<sup>127</sup>
- The median household income for White populations was greater than that of Black or Latino/a/e residents in Westfield and Springfield (see Figure 23).

**FIGURE 22: Unemployment Rates by Race/Ethnicity, Hampden County, and Selected Communities, 2015-2019**

*Source: U.S. Census Bureau, ACS, 2015-2019.*

Another important consideration when looking at income data is the concept of a living wage, or what it costs to sustain oneself and one's household. Based on the Massachusetts Institute of Technology (MIT) Living Wage Calculator,<sup>128</sup> a single parent with one child in Hampden County would need to earn \$31.30 an hour, or \$65,096 a year, to meet living expenses. Median income for Black and Latino/a/e households is far below this level. For comparison, the minimum wage is \$12.75 per hour, and the poverty-level wage is \$8.29 per hour.

**FIGURE 23: Median Household Income by Race/Ethnicity of Householder, Hampden County, and Selected Communities, 2015-2019**



Source: U.S. Census Bureau, ACS, 2015-2019

## Violence and Trauma

Interpersonal and collective violence affects health directly, via death and injury, as well as indirectly through the trauma that affects mental health and healthy relationships.<sup>129</sup> Interpersonal violence includes sexual and intimate partner violence, childhood physical and sexual abuse and neglect, and elder abuse and neglect. Collective violence and trauma, such as crime, police brutality, and gun violence, affect the health of communities. Having a safe community free of violence and danger affects whether residents feel safe deciding where and when they will go outside of their homes.

COVID-19 had repercussions for residents dealing with any kind of violence. During the pandemic, being able to leave one's home and spend time outdoors was a welcome opportunity for some families, but a risk for those in communities with high levels of violence. Also, the pandemic affected those at risk of intimate partner violence, elder abuse, and child abuse, by forcing residents to stay indoors with potentially dangerous household members. Based on a review of 12 U.S. studies, domestic violence increased by 8.1% after pandemic related lockdowns.<sup>130</sup> In Hampden County, the annual rate between

2014 and 2016 for violent crimes, which includes homicide, rape, robbery, and aggravated assault, was more than 55% higher than the statewide rate, at 585.30 compared to 374.40 per 100,000.<sup>131</sup> In the communities served by Baystate Noble, there are 510 violent crimes per 100,000 people compared to 388 per 100,000 statewide.<sup>132</sup>

### Environmental Exposures and Climate Crisis

Air pollution is associated with asthma, cardiovascular disease, and other illnesses, impacting the health of Hampden County residents. Many cities in Hampden County are in a valley into which air pollution travels from other sources and settles. Exposure to near roadway air pollution has a particularly detrimental impact on health with the highway and heavily trafficked roads running through or adjacent to neighborhoods. Asthma is discussed in more detail below under Chronic Conditions, and it remains a major prioritized health need in the communities served by Baystate Noble.

Exposure to lead is a well-known health risk, connected to outcomes as varied as decreased academic achievement and IQ, and reduced growth in children, as well as decreased kidney function, increased blood pressure, and hypertension in adults.<sup>133</sup> With families spending more time indoors due to the ongoing pandemic, they may be at an increased risk for lead exposure.

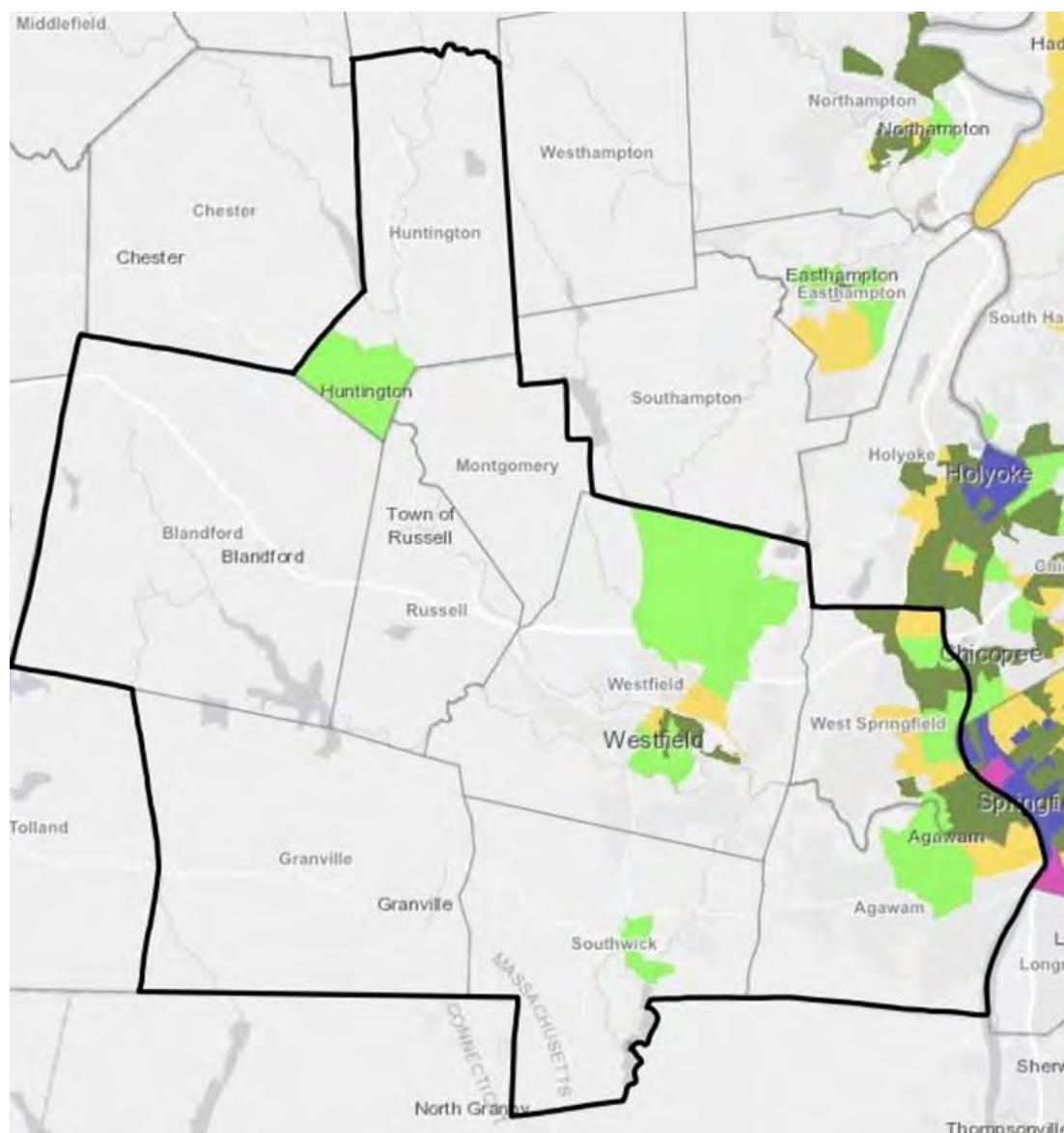
- In 2020, 2.6% of screened children (9 to 47 months) in Westfield had elevated blood lead levels ( $\geq 5$   $\mu\text{g/dL}$ ), double that of the state (1.3%).
- 0.9% of children in Westfield had blood lead levels considered to be lead poisoning ( $\geq 10$   $\mu\text{g/dL}$ ), over triple the Massachusetts value of 0.28%.<sup>134</sup>

Other environmental hazards in homes include asbestos, carbon monoxide, fire, mold and mildew, pests such as roaches and rodents, radon, and tobacco smoke.<sup>135</sup> Residents with low incomes and limited access to good-quality, affordable housing may be at greater risk of exposure to these potentially harmful housing conditions.

In addition, parts of the communities served by Baystate Noble are designated environmental justice communities. West Springfield, Westfield, Huntington, Southwick, and Agawam have block groups with environmental justice designations (Figure 24). Environmental justice communities are those identified as having underserved populations that often experience disproportionate exposure to environmental hazards. They are at greater risk of exposure because it has been easier for polluting industries to site their installations in communities with disenfranchised populations. The state of

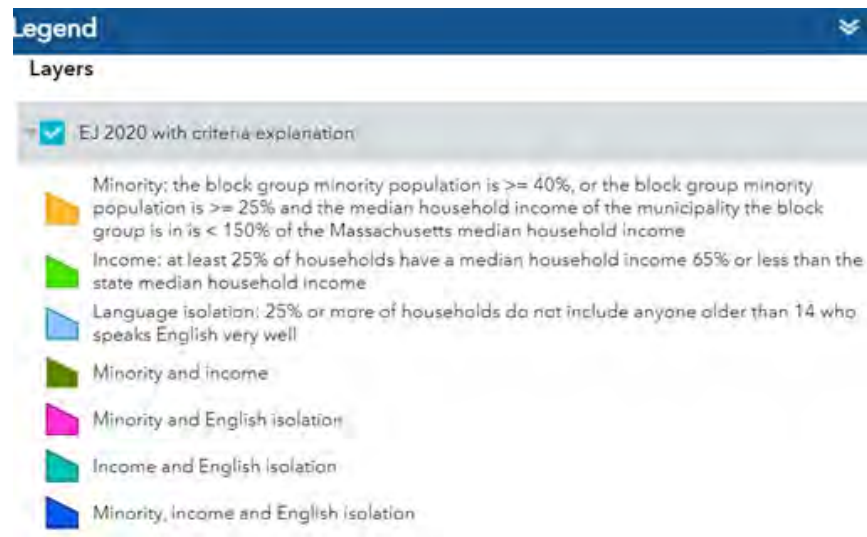
Massachusetts' Executive Office of Energy and Environmental Affairs established an Environmental Justice policy that aims to reduce potential added environmental burdens on Environmental Justice Communities in Massachusetts, specifically focusing on neighborhoods that have a large percentage of limited-income, people of color, or non-English-speaking populations.<sup>136</sup>

**FIGURE 24: Massachusetts Environmental Justice Populations, 2020**



**Source:** MA Executive Office of Energy and Environmental Affairs, *Environmental Justice Populations in Massachusetts, 2020*

**Note:** outline reflects bounds of the communities served by Baystate Noble



The climate change crisis is already having impacts, including rising temperatures, increased precipitation and flooding, and extreme weather events that will negatively affect the health of many residents in the communities served by Baystate Noble, including those with asthma, COPD, stroke, hypertension, diabetes, obesity, and depression. Limited-income populations, communities of color, older adults, people with disabilities, and immigrants have also been identified as subpopulations who may disproportionately experience negative impacts of natural disasters and climate change.<sup>137</sup>

Increased heat represents the greatest threat to public health brought on by climate change. Between 1996 and 2005, West Springfield averaged 7.63 days per year that were above 90 degrees. By 2030, the Massachusetts Department of Public Health projects West Springfield will have 18.48 above 90-degree days each year, a sharp increase. Within 20 years, which estimate rises to 26.68 days per year.<sup>138</sup> As days with extreme heat become more commonplace, hospitalizations due to heat stroke may increase. Limited-income residents will be most affected as they may not be able to afford air conditioning. The state also anticipates a rise in illness and death due to cardiovascular disease and renal failure because of increased heat.

Air quality will also suffer. Longer, more extreme, and more frequent periods of extreme heat will beget increases in pollen production, ozone, and particulate matter. These conditions will exacerbate the region's already notable incidence of asthma (see "Health Outcomes" section below) as well as other respiratory conditions.

Along with increased heat, increased precipitation will contribute to declining public health through its effect on the natural environment. Between 1996 and 2005, Agawam experienced an average of 5.76 days annually of rainfall exceeding one inch. By 2050, that amount is projected to increase to 6.95 days on average.<sup>139</sup> Though not as dramatic as the expected increase in temperature, increased precipitation is a foreboding prospect for the region. A hotter and wetter climate will make the region more hospitable to disease-bearing pests, such as ticks and mosquitos. Greater rainfall exposes residents to not only greater risk of property damage and loss of value due to floods but environmental hazards that accompany water damage, such as mold and contamination.

### *Barriers to Accessing Quality Health Care*

---

Please refer to Section 6c. Deeper Dive: Access to and Availability of Providers, and Other Care Barriers.

### *Health Outcomes*

---

#### **Chronic Health Conditions**

A chronic health condition is one that persists over time and typically can be controlled but not cured. Chronic health conditions continue to remain an area of prioritized health need for communities served by Baystate Noble. Residents continue to experience high rates of chronic health conditions and associated morbidity, particularly for obesity, diabetes, cardiovascular disease, cancer, and asthma.

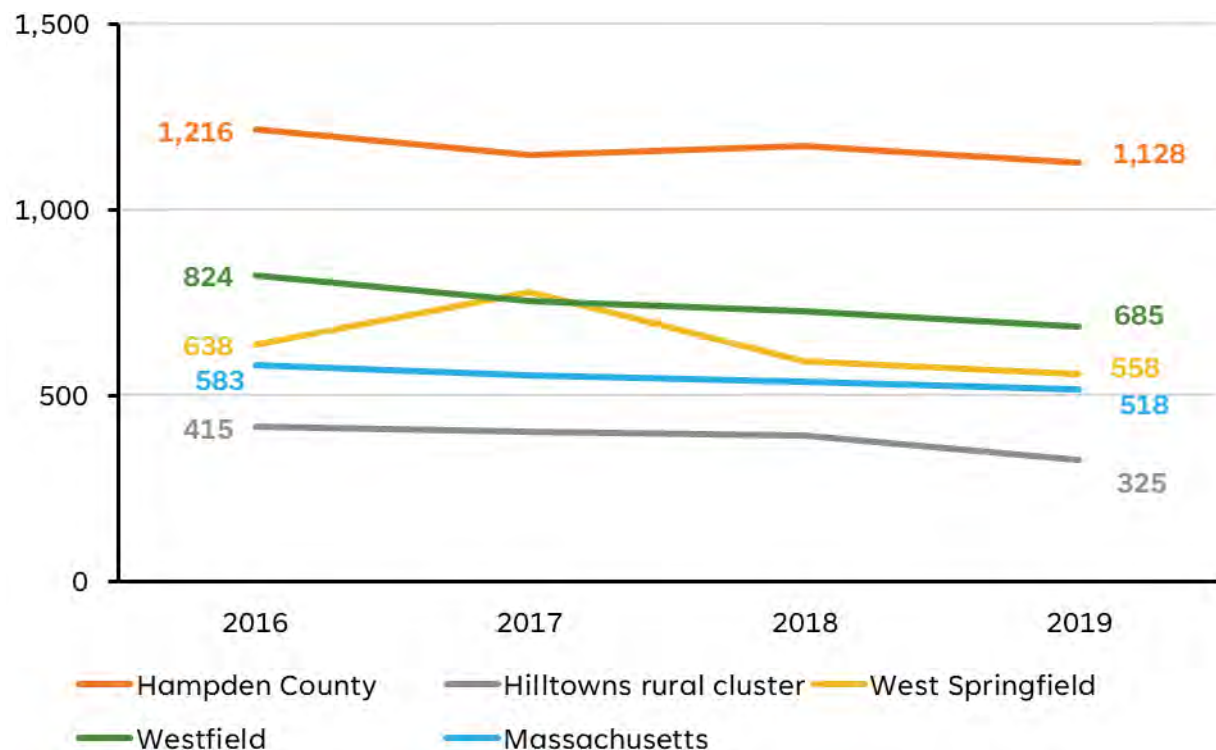
As with other health needs described in this CHNA, there are disparities for many chronic diseases by rural versus urban, race, ethnicity, and for those in poverty. Living in a rural area, systemic racism, and endemic poverty affect access to high-quality health care, stress levels, exposure to environmental toxins, access to healthy foods, and opportunities to exercise – all factors that influence chronic disease and how well it can be managed. Lower educational attainment across the communities served by Baystate Noble relative to other communities may result in lower levels of health literacy, thereby affecting one's ability to manage complex conditions.

**Asthma:** Westfield and West Springfield have 11% prevalence rates of asthma.<sup>140</sup> Hampden County residents continue to be impacted by asthma with ED visit rates more than two times that of the state in 2019 (1,128 versus 518 per 100,000, respectively and

hospitalization rates over 70% greater (145 versus 84 per 100,000 respectively).<sup>141</sup> In the Hilltowns rural cluster, West Springfield, and Westfield, we see that asthma hospitalizations were on the rise from 2016 to 2019 (Figure 25). Within Hampden County, there were significant differences in admission rates for asthma between races. In 2019, the most recent year in the data set, Black residents of Hampden County were admitted to the ED for asthma at a rate double that of White residents. Black hospital admission rates for asthma rose since the last CHNA, whereas they declined or held steady for other racial groups. The state did not provide 2019 data on Latino/a/e admission rates, but in the last CHNA, Latino/a/e rates for ED visits were double Black rates (2617 per 100,000 versus 1310). The disparities were even more extreme for Latino/a/e pediatric ED visits.<sup>142</sup>

**FIGURE 25: Asthma Emergency Department Visit Rates, Hampden County, and Selected Communities, 2016-2019**

*Age Adjusted per 100,000*



**Source:** MDPH Hospital Admissions, State Tables, 2016-2019.

**COPD:** Chronic Obstructive Pulmonary Disease (COPD) is chronic obstruction of lung airflow that interferes with normal breathing and is not fully reversible. More familiar

terms such as chronic bronchitis and emphysema are no longer used but are included within COPD. Between 2016 and 2019, the average age-adjusted COPD hospital admission rate in Hampden County was 216.7 per 100,000 compared to 94.4 in the Hilltowns rural cluster.<sup>143</sup>

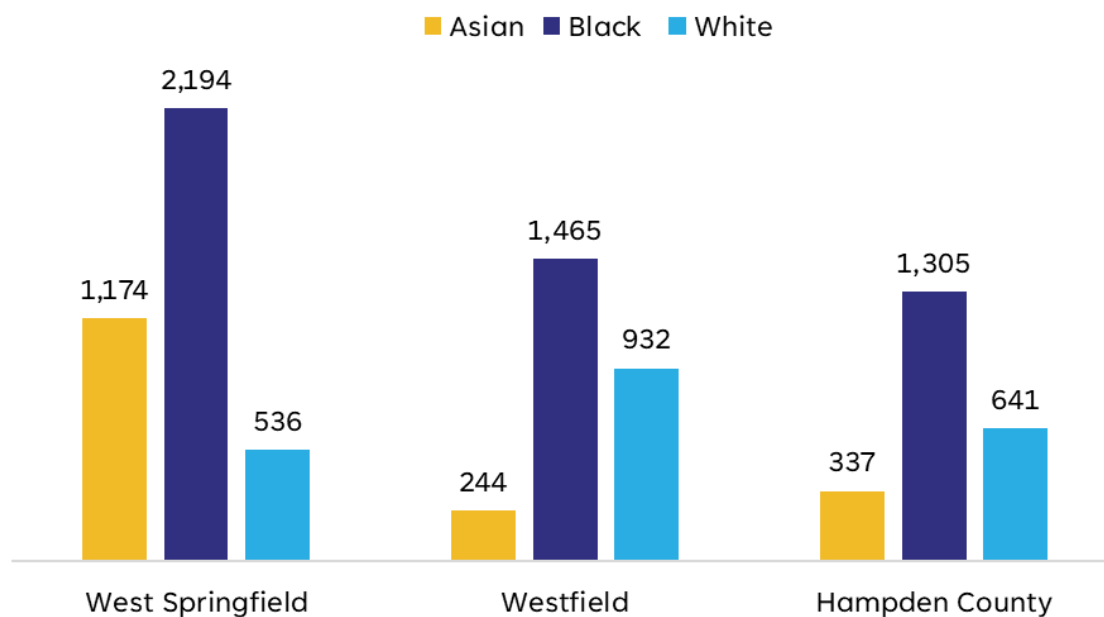
**Obesity:** Obesity is a national epidemic and contributes to chronic illnesses such as cancer, heart disease, and diabetes. Obesity can impact overall feelings of wellness and mental health status. A healthy diet and physical activity play a key role in achieving and maintaining a healthy weight. The percentage of adults who have obesity in Westfield is 26%, and 25% in West Springfield. Hampden County rates have remained similar since the last CHNA, at 31% in Hampden County compared to 25% statewide.<sup>144</sup>

**Cardiovascular disease:** cardiovascular disease (CVD) includes diseases that affect the heart and blood vessels, including coronary heart disease, angina (chest pain), hypertension, heart attack (myocardial infarction), and stroke. In Westfield and West Springfield, 6% of their populations have coronary heart disease.<sup>145</sup>

- As of 2018, about one in five (21%) of Medicare fee-for-service beneficiaries in Hampden County has ischemic heart disease (24% statewide).<sup>146</sup> And over half (56%) of Medicare fee-for-service beneficiaries in Hampden County had high blood pressure, the same rate as statewide.<sup>147</sup>
- As shown in Figure 26, the age-adjusted heart disease emergency department rate for Black and Asian populations in West Springfield, and Black populations in Westfield, was markedly higher than for White populations. (Rates for Latino/a/e populations were not provided.)
- Between 2016 and 2019, the average age-adjusted cardiovascular disease hospital admissions rate for the Hilltowns rural cluster was 805.6 per 100,000, compared to the state average of 1,178.
- The average age-adjusted stroke hospital admissions rate between 2016 and 2019 was 159.7 per 100,000 in the Hilltowns rural cluster and 188.9 in the Quaboag Valley rural cluster, compared to 193.1 per 100,000 at the state level (see Figure 27).

**FIGURE 26: Heart Disease Emergency Department Visits by Race, Hampden County, and Selected Communities, 2016-2019**

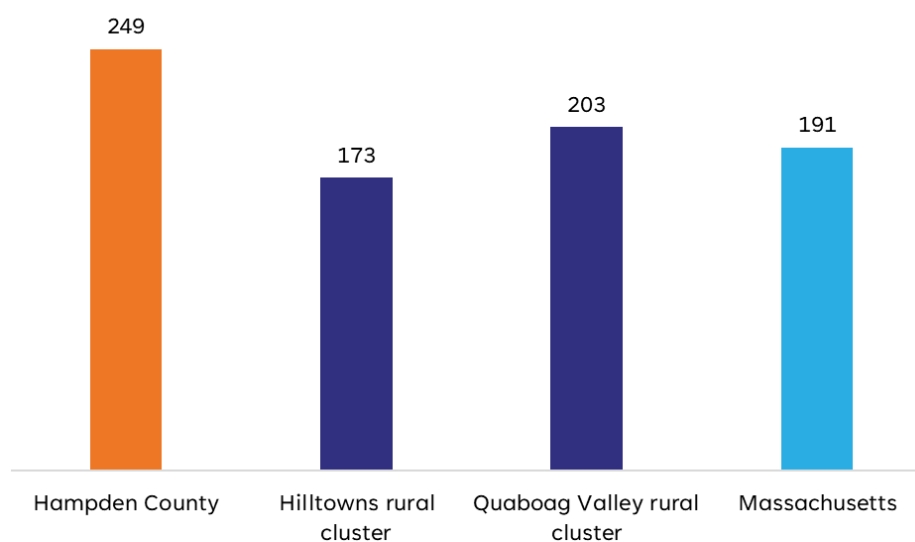
*Age Adjusted Per 100,000*



*Source: MDPH, Hospital Admissions, State Tables, 2016-2019.*

**FIGURE 27: Stroke Hospitalization Admission Rates, Hampden County, and Rural Clusters, 2019**

*Age Adjusted per 100,000*



*Source: MDPH, Hospital Admissions, State Tables, 2016-2019.*

**Cancer:** Cancer was the leading cause of death for Massachusetts residents in 2019, with the highest rates seen in White residents at 144 per 100,000 and the lowest seen in Asian residents at 91 per 100,000.<sup>148</sup> The prevalence of cancer (excluding skin cancer) among adults aged 18 and older was 8% in Westfield and West Springfield and 9% in Agawam.<sup>149</sup> Advancing age is the most important risk factor for cancer, and between 2010 and 2019, the segment of the population 65 and older in Hampden County increased 23%.<sup>150</sup>

**Diabetes:** An estimated 10% of residents in the communities served by Baystate Noble have diabetes (9% statewide; 10% nationwide).<sup>151,152</sup> Eight percent of both Westfield and West Springfield residents have diabetes as well.<sup>153</sup> While these rates are lower than the state, they remain cause for concern given the potential health impacts of diabetes. Most of the diabetes is Type 2 diabetes, which is one of the leading causes of death and disability in the U.S. and a strong risk factor for cardiovascular disease. We see inequities in who is experiencing the highest rates of serious illness and complications from diabetes, with greater hospitalization rates among Black patients compared to White patients.<sup>154</sup>

### Other Health Outcomes

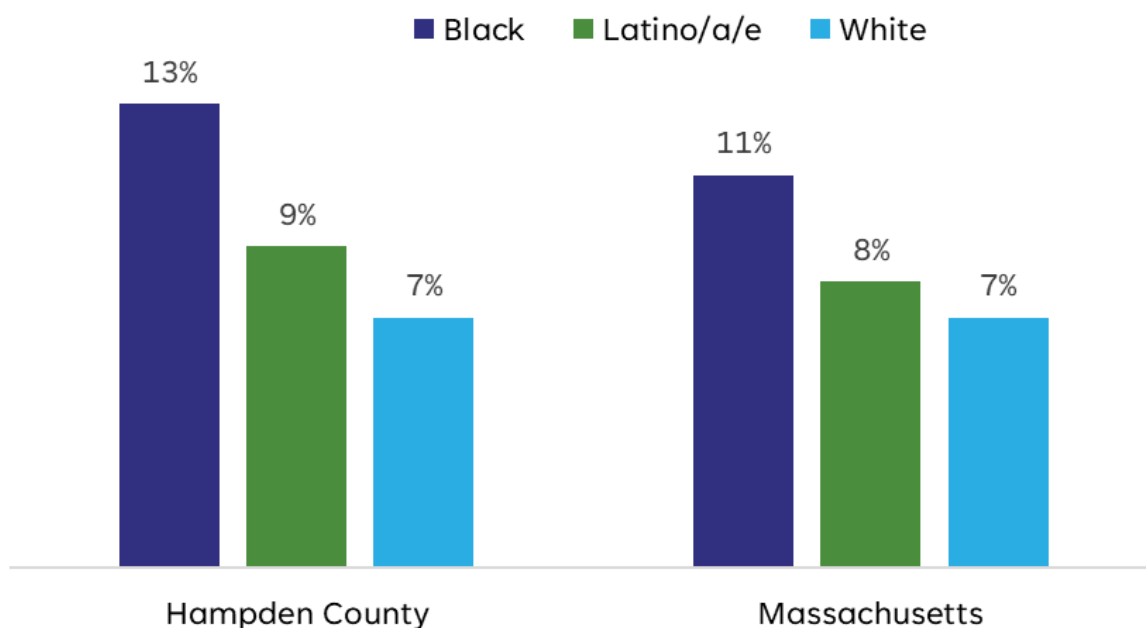
**Infant and Perinatal Health:** Infant and perinatal health risk factors continue to affect Hampden County residents, causing poor maternal and infant outcomes. Preterm birth (<37 weeks gestation) and low birth weight (5.5 pounds or less) are among the leading causes of infant mortality and morbidity in the U.S. and can lead to health complications throughout the life span.<sup>155</sup> Early entry to prenatal care and adequate prenatal care are crucial components of health care for pregnant women that directly reduce poor birth outcomes, including preterm birth, low birth weight, and infant mortality (infant death before age 1).<sup>156</sup> Smoking during pregnancy is a risk factor that increases the risk for pregnancy complications and affects fetal development.<sup>157</sup>

- The percentage of low-birth-weight births in Hampden County is just over 8% and comparable to statewide, with Black (13%) and Latino/a/e (10%) women experiencing inequities.<sup>158</sup> (See Figure 28)
- The infant mortality rate in the communities served by Baystate Noble between 2012 and 2018 was 5 per 1,000 births, higher than the statewide rate of 3.8 per 1,000.<sup>159,160</sup>

One of the starkest health inequities in the U.S. today is related to maternal death and infant death. Black women are up to four times more likely than their White counterparts to die from a pregnancy-related cause.<sup>161</sup>

**Sexual Health:** While great strides have been made to reduce teen birth rates in Hampden County, sexual health remains a prioritized need due to high rates of unsafe sexual behavior. The communities served by Baystate Noble has more cases of gonorrhea (152 versus 115)<sup>162</sup> and chlamydia (480 versus 426)<sup>163</sup> per 100,000 people than the statewide rates. The prevalence of HIV/AIDS in the communities served by Baystate Noble is 362 per 100,000, which is slightly higher than the statewide rate of 345.<sup>164</sup>

**FIGURE 28: Low Birth Weight, Percent by Race/Ethnicity, Hampden County, and Massachusetts, 2014–2020**



*Source:* University of Wisconsin Population Health Institute, County Health Rankings. 2014–2020. Source geography: County

**Alzheimer’s Disease and Dementia:** Alzheimer’s disease is the most common form of dementia and accounts for 60% to ~80% of dementia cases. More than 6 million Americans are living with Alzheimer’s, and between 2000 and 2019, deaths from Alzheimer’s increased by 145%.<sup>165</sup> COVID-19 has also influenced Alzheimer’s, as preliminary reports from the CDC indicate that there were approximately 16% more deaths in 2020 from

Alzheimer's and other forms of dementia as compared to the five-year average before 2020.<sup>166</sup> People with dementia, including Alzheimer's, are found to be at elevated risk for infection and death from COVID-19, due to living in nursing homes, where the virus initially spread quickly in many parts of the country.<sup>167</sup>

- In the communities served by Baystate Noble, four in 100,000 residents visited the ED for Alzheimer's-related concerns and nine in 100,000 were hospitalized.<sup>168</sup>
- An estimated 11% of Medicare fee-for-service beneficiaries in Hampden County have Alzheimer's disease, which is comparable to the statewide rate.<sup>169</sup>

Of the total population in Hampden County, 17% are 65 years and older. Between 2010 and 2019, this population has grown by 23% and is expected to continue to increase as the population ages.<sup>170</sup>



Photo Credit: Stanley Park

Armbrook Village Alzheimer's Support Group Cookout  
Photo Credit: Beth CardilloIt Takes A Village Baby Tub  
Photo Credit: Mollie Hartford (ITAV)Armbrook Village  
Photo Credit: Beth CardilloBaystate Noble's Dr. Sunny Shukla ready to throw  
out the first pitch at Westfield Starfires Game  
Photo Credit: Sunny Shukla

# 7. Priority Populations

## 7. Priority Populations

The priority populations identified through the 2019 CHNA continue to be priority populations for the 2022 CHNA because of disparities in social determinants of health, access to care, and/or high rates of health conditions.

Available data indicate that children and youth, older adults, Latino/a-es, and Black people experience disproportionately high rates of some health conditions when compared to that of the general population in Hampden County. Children experienced high rates of asthma and obesity. Teens experienced higher rates of depression and lower rates of adequate prenatal care when pregnant. Older adults had higher rates of hypertension and asthma. Latino/a/es and Black people experienced higher rates of hospitalizations due to asthma, stroke, CVD, diabetes, cancer, and also experienced poor birth outcomes and lower rates of prenatal care.

With regard to mental health and substance use disorder, data indicate increased risk for youth for depression, substance use, and suicide. In particular, girls have higher rates of some types of substance use and LGBTQIA+ youth have particularly high rates of depression and suicide. Older adults are at risk for substance use disorder. The data show that in Hampden County, Latino/a/es in particular have much higher rates of mental health hospitalizations and substance use emergency department visits. Others at risk include women, who have higher rates of mental health hospitalization, people reentering society after jail who are at high risk for overdose, and people with dual diagnoses. People experiencing homelessness have high rates of severe mental illness and substance use disorder.

When considering those with disproportionate access to the social determinants of health, the Latino/a/es and Black population experience a host of inequities, including that of poverty, unemployment, income, educational attainment, interpersonal and institutional racism, affordable and safe housing, and access to transportation and healthy food. Youth were identified as at risk with regard to childhood poverty and interpersonal violence, and older adults experience needs in affordable housing, income, and social isolation. People with lower incomes experience poverty, unemployment, income concerns, lack of access to affordable and safe housing as well as poor housing conditions, and lack of access to transportation and healthy food. People with disabilities tend to have higher rates of poverty and lower levels of education, and in Hampden County, people living with a disability have more than double the rate of poverty as those

with no disability. Women earn less than men and have high rates of experiencing interpersonal violence and trauma. People who have been involved in the criminal legal system have barriers to housing and employment, and experience stigma and trauma. People with mental health and substance use disorders experience stigma and homelessness at higher rates. Community Forum participants encouraged inclusion of immigrants and refugees, who face challenges to behavioral, cultural, and structural determinants of health.

### *Geographic Areas of Concern*

---

West Springfield, Westfield, Southwick, and Agawam had consistently higher rates for the majority of health conditions identified as prioritized health needs. These communities also disproportionately experience numerous economic and social challenges which contribute to the health inequities existing in these communities.

# 8. Actions Taken by Baystate Noble

## 8. Actions Taken by Baystate Noble

The CHNA conducted in 2019 identified significant categories of health needs within the communities served by Baystate Noble. Those needs were then prioritized based on the magnitude and severity of impact of the identified need, the populations impacted, and the rates of those needs compared to referent (generally the state) statistics.

Additionally, Baystate Noble's resources and overall alignment with the health system's mission, goals, and strategic priorities were taken into consideration. It was determined that the hospital could effectively focus limited resources on select prioritized health needs. The full Strategic Implementation Plan (SIP) for 2020-2022 can be found here: <https://www.baystatehealth.org/about-us/community-programs/community-benefits/community-health-needs-assessment>. For the purposes of the SIP, four focus areas and goals were prioritized, including mental health and substance use, lack of resources to meet basic needs, built environment, and interpersonal and institutional racism.

In 2020, the year immediately following the completion of the 2019 CHNA and development of the 2022-2025 SIP, our world was turned upside down by the COVID-19 pandemic. Baystate Noble's CBAC pivoted to virtual meetings and continued to meet monthly and oversee the awarding of grant funding to select partners through the Better Together Grant Program request for proposal processes (in 2021 and 2022) to further address health needs identified in the 2019 CHNA. The section below provided additional details about the various initiatives undertaken and investments made by Baystate Noble to address the priorities identified in the previous CHNA.

### *Mental Health and Substance Abuse*

---

- **Opioid Earmark Grants:** In 2020, Baystate Noble received a \$100,000 opioid earmark grant. The hospital convened an Opioid Task Force (OTF) to guide funding allocation. \$40,000 was invested in several internal initiatives. A youth support was supported in local schools to provide support for students who lost a family member to the opioid epidemic. The Baystate Health Addiction Consult Team (ACT) received an investment in iPads to improve their telehealth capacity, a significant step toward full program implementation. This was supplemented by increased capacity building through providing training for hospital employees on topics related to SUD. The funding allowed staff members to be reimbursed for training. Lastly, Baystate Noble contracted Tapestry Health to create and

distribute more than 1,500 harm reduction kits. These were distributed in both the Emergency Department and in mobile care settings. In addition to these efforts, the remaining funds were invested in the community, guided by the Baystate Noble CBAC. Funding provided to the Coalition for Outreach, Recovery, and Education (CORE) of Greater Westfield allowed for increased backbone support and a networking event for recovery coaches. The Mental Health Association (MHA) received funding to support its Telewell initiative to expand community awareness and enrollment in behavioral telehealth programs. Finally, funding allocated to the Greater Westfield Committee for the Homeless was used to purchase a van to provide transportation from the shelter to behavioral health visits.

The following year, Baystate Noble received another \$100,000 opioid earmark grant. The OTF invested about a third in the hospital and the remainder in the community, guided by the Baystate Noble CBAC. Internally, funding from this grant was used to launch the Words Matter campaign, a social media campaign, and a pledge to stop using stigmatizing language related to those with SUD. There are currently 900 employees signed onto the pledge. A harm reduction training was created through a collaboration between the Baystate Noble OTF and the teaching staff at the hospital. The education program was supplemented with on-site Narcan training, harm reduction kits, and educational materials. External funding awards went to the CORE of Greater Westfield, Tapestry Health, and the West Springfield Department of Health (WSDH). CORE used the funding to design a Drug Addiction and Recovery Team (DART) data dashboard, as well as training for mentors and other organizations who use it. At Tapestry Health, funding was used to create a series of short videos and a documentary about the impact and harm of OUD. Funding at WSDH was used to support its DART team that follows up with individuals who have recently overdosed and encourages them to get treatment. The WSDH also partnered with the Council on Aging's Meal on Wheels to educate people and deliver medication disposal pouches.

- **CORE of Greater Westfield and Mental Health Association (MHA) (Better Together Grantees)** was awarded a three-year, \$84,500 grant to support its Substance Use Recovery Coach Initiative. The Recovery Coach Initiative provides recovery coaches to work with DART teams operated by the Westfield Police, assisting community members who suffer from an overdose. Follow-up for those who overdose is scheduled by CORE within 48-72 hours. After one month, there is another follow-up by a team comprising a police officer, a nurse clinician, and a harm reduction specialist. A recovery coach will be added to this team. The goal is to get the

individual into treatment, and the shared-life experience of the recovery coach can help overcome barriers that prevent that from happening. Coaches will also meet with the individual throughout the process if they are willing. These meetings will happen via telehealth, which limits the need for transportation. This is an ongoing program, but there have been a couple of significant successes in the first year of implementation. Successes include hiring an additional recovery coach and launching the DART information Database, a wealth of information that will assist in providing timely and appropriate services.

- **Baystate Behavioral Health Hospital (opening 2023):** Baystate Health and Kindred Behavioral Health are partnering to build and operationalize a new state-of-the-art behavioral health hospital to meet the communities increased need for specialized behavioral health services and to address the dire shortage of beds in the region. The 150-bed freestanding facility, to be called Baystate Behavioral Health Hospital, will be in Holyoke, Massachusetts, and will feature 120 semi-private rooms and thirty private rooms for the Commonwealth of Massachusetts Department of Mental Health. The new hospital will increase patient access to Baystate Health's specialty inpatient behavioral healthcare for adults, including geriatric patients, as well as adolescents and children, by more than 50%. The 23,230-square-foot, four-story facility is designed specifically for behavioral health services to foster a better healing environment for patients and will feature a wide range of programs to meet patients' varying treatment needs. The hospital will feature large activity and therapy rooms, a gym for therapy services, multiple courtyards, and outdoor recreation spaces where patients can interact with each other and their family members. The \$72 million project is estimated to take 16 months to complete with an expected opening in August 2023.

### *Lack of Resources to Meet Basic Needs*

---

- **Food Bank of Western Massachusetts and Westfield Food Pantry (Better Together Grantees)** received a three-year \$84,500 grant to support the Food Insecurity Screening and Referral Initiative (FIRSI). With the funding and new partnership, the organizations hope that FIRSI will:
  - Assess barriers that are preventing people in need from accessing programs.
  - Reach populations that would otherwise be neglected.
  - Improve outcomes for people who utilize the new nonclinical access point.

- Reduce healthcare costs for those who suffer from food insecurity and in the health system generally.
- Design and test an approach that can be replicated, folded into to current system, and implemented on a state or region-wide scale.
- Build a more holistic healthcare system by increasing access points beyond traditional healthcare settings. Increased access will increase health equity in the area.

This is a relatively new program, but there have been several successes. These include hiring a Food Assistance Referral Coordinator and transitioning to the 413 Cares platform. The 413 Cares platform is a cross-agency effort that allows for service delivery to be tracked in one place.

- **It takes a Village (ITAV)** received a \$5,000 community benefit grant in FY 20 and 21. ITAV is an organization that works to increase support and decrease social isolation for families with new children. This includes free baby items and support groups for new and expecting parents. ITAV provides home service visits for families for the first three months of a new child's life for free. The contribution was an in-kind donation. In FY 19, BAYSTATE NOBLE donated 7,776 diapers and 240 packs of wipes. In FY 21, the Baystate Noble donated 5,872 diapers, 560 packs of wipes, and 280 bottles of baby wipes.
- **Baystate Noble Employee School Supply and Holiday Toy Drives:** Traditionally, Baystate Employees donate school supplies to local schools in a community served by the hospital. Due to the pandemic, the drive had to be canceled. Instead, the hospital leveraged its purchasing power to donate \$25,000 worth of school supplies. Beyond school supplies, more than \$2,000 in gift cards were donated to beneficiary schools. The following year, the school supply drive was able to be held as it traditionally was, with Baystate Noble team members donating school supplies to be donated to an area school. Abner Gibbs Elementary School was chosen as the beneficiary school. In addition to the school supply drive, Baystate Noble team members also donate toys for an Annual Holiday Drive. Unfortunately, during the pandemic and statewide shutdown, it had to be canceled in 2020. In 2021, Baystate Noble staff designed a plan for the toy drive that allowed it to happen despite the ongoing pandemic. Team members mailed or delivered newly bought donations to be distributed. The donated toys were distributed to children in the Greater Westfield by the BHN.

### *Built Environment*

---

- **Town of Blandford (Better Together Grantee):** received a \$25,000 to support the Solving the Digital Divide for the Elderly Populations Initiative. The program aims to address the loneliness and “digital divide” among elderly residents in the rural town using a humility lens. One component of this effort is a town-wide initiative with Whip City Fiber to connect 99% of households to high-speed internet. Another goal of the initiative is to address barriers that prevent Blandford’s elderly residents from accessing the internet. These barriers include not knowing how to upgrade from DLS service, not having a computer, and not knowing how to use one. While this is an ongoing program, successes include hiring an Outreach Coordinator and reaching out to 50 elderly individuals to discuss their interest in signing up for both broadband and digital support.
- **Alliance for Digital Equity:** the issue of the “digital divide” is a significant barrier to equitable access to services, medical or otherwise. In the Summer of 2020, there was broad community engagement on the “digital divide” led by Baystate Health’s Vice President for Community Health, Frank Robinson. Discussions were centered on solving problems preventing digital equity, which occurs when everyone has access to the internet. In the fall of 2020, the Digital Alliance was formed, comprising 30 people representing various community elements and organizations working to actualize solutions that began in the discussion series. This is an ongoing project, and more information about their current activities can be found at [www.AllianceForDigitalEquity.com](http://www.AllianceForDigitalEquity.com).
- **Baystate Noble Hospital Financial Counseling:** To ensure that as many people who need care get it, Baystate Noble offers financial counseling to community members who have concerned about the cost of their care. Financial services provided include assistance with health insurance applications, navigating the health system, ensuring all healthcare needs are met, and determining eligibility for financial aid. Counselors are a link between clients and community resources, assisting people in finding a primary care physician, providing information about behavioral health services, and assisting with insurance issues at pharmacies. All counselors are Certified Application Counselors, a state-run program that trains participants to help the community apply for state and federal healthcare assistance. This program requires all counselors to be recertified yearly and take annual training.

- **Public Health Nurse:** In 2019 BHN funded a public health nurse to provide services at the Westfield Senior Center on Tuesdays and Thursdays from 9 am to 12 pm. The nurse provides access to blood pressure checks, medication reviews, and health education. There is no charge for seniors who utilize this service. This program has been suspended due to the pandemic.
- **Moving, Improving, and Gaining Health Together at the Y or MIGHTY:** a yearlong behavior modification program that targets obesity in people aged 5-21 by providing group physical activity sessions and sessions teaching participants about nutrition. There are 14 two-hour sessions held yearly and complemented by a battery of services centered around teaching participants skills to live a healthy lifestyle. These extra services include free swimming lessons, cooking classes, and behavioral health consults. Participants and their families get a six-month membership for free. After completing the program, participants are eligible to attend monthly maintenance groups to continue their journey. In 2021, the program helped 18 children and their families.
- **Hampden County Health Improvement Plan (HCHIP):** Baystate continues to provide backbone support to the HCHIP. The organization has five focus areas: health equity; behavioral health; primary care, wellness, and prevention; healthy eating, and active living. HCHIP was awarded the Massachusetts Community Health and Healthy Aging Fund Grant. It has successfully implemented many programs with community partners that benefit the community. Tapestry Health engaged in Narcan training and outreach. Tapestry health developed and generated interest in four naloxoboxes in Hampden County as a part of these efforts. This effort was supplemented by Harm reduction training and outreach designed to reach 100 people. Additionally, HCHIP successfully advocated for the “Family First’ bill, an effort led by MOAR, another HCHIP member. This bill expanded telehealth access to SUD and mental health services. This effort was supplemented by successfully implementing a “Breaking the Stigma’ campaign via local radio and 413 cares to raise awareness about SUD and resources to treat it. HCHIP also helps to facilitate youth mentoring in the community. In November of 2021, it held a Youth Mentoring Summit that connected participants with more than 50 potential mentors. This effort was augmented by the creation of mentoring resources posted on 413Cares and in-person programs.

In 2021, HCHIP used \$10,000 of funding from Baystate to distribute as mini grants to several community organizations, including Estoy Aquí LLC, Suicide Prevention

and Social Justice Education, Let's Move Holyoke, Farmers Market Coach, University of Massachusetts Amherst, and STRIVE Youth Participatory Action Research. While many of these are ongoing programs, there are several successes in the distribution of these grants. Estoy Aquí provides bilingual suicide prevention training to community members who work with youth. Program participants included barbers, hairdressers, doulas, etc. More than 45 community members have been trained so far. This program is also featured in a documentary called Mosaic. Let's Move Hampden County 5120 group hired a bilingual farmers market coach who provides dual services through orienting people with the Holyoke farmer's market and providing information about the Healthy Initiatives Program, which provides free fresh produce to SNAP/EBT participants. The group has leveraged this to get funding to keep the farmer's market open during the winter. The group also secured a grant from Feeding America to implement this area in other communities. Beyond the mini-grants, HCHIP. The mini grant awarded to STRIVE provided funding for the Youth Participatory Action Research Project. In its first year, 14 participants were able to share their perspectives of the world through various mediums, including some of the pictures in this report.

### *Institutional and Interpersonal Discrimination*

---

- HCHIP also works to fight discrimination in the community by continuing to hold discussions and reflect on race, discrimination, white dominant culture, and inequity. In 21, two trainings led by facilitator Mo Barbosa, "Race, Racism, and Racial Equity" and "Achieving Equity through Policy, Systems, and Environment Change," were held. The trainings were held for members free of charge.

### *Other Needs Identified in the CHNA*

---

- **Population-based Urban and Rural Community Health Program (PURCH):** A track at the University of Massachusetts Medical School. The program aims to train medical students using a population health lens and is informed by a community-based experience. In 2021, there were 15 graduates, with nine remaining in Massachusetts. The demographic breakdown based on how students identified is 11 White, one Black, one Chinese, and one graduate who chose not to self-identify. In 2022 there were 27 graduates, with 18 staying in MA and two continuing at Baystate. The demographic breakdown is 21 white students, two identified as Asian, two identified as Chinese, one identified as Indian, and one

identified as other. In 2021, the PURCH give back program was developed in response to students recognizing there is often a shortage of resources at community-based organizations. The program partners with Baystate Health's Office of Government and Community Relations (OGCR), which allows students to provide financial support to community-based organizations and initiatives through earmarked Baystate Health community benefit funding. PURCH students collaborate with community-based organizations and may identify a need, whether it is emerging, current, or urgent. Once a need has been identified, students can write and submit a proposal for funding that addresses the organizational or programmatic need and how it would address a social determinant of health. The first Give Back Program Grant recipient was an initiative called "Rainbow Kitchen." The program aims to provide a new LGBTQIA+ residential living facility with healthy cooking classes in partnership with Tapestry Health.



# 9. Resources

## 9. Resources



# 413CARES

**Connecting YOU with Resources in the 413**  
*Many Resources Are FREE*



**Resources Available**

  
Food and Nutrition

  
Housing

  
Behavioral Health & Recovery

  
Early Education

  
Healthcare

  
And More!

**GO TO**

413Cares.org



**Baystate Health**  
ADVANCING CARE. ENHANCING LIVES.



Brought to you by  
**PUBLIC HEALTH INSTITUTE  
OF WESTERN MASSACHUSETTS**  
PARINEROS - OR HEALTH LOUITY

  
SCAN ME

## LOOK4HELP






FIND LOCAL RESOURCES

www.

look4help.org

Serving Franklin and Hampshire Counties and the North Quabbin Region



- Housing
- Food
- Transportation
- Money
- Mental Health
- Addiction & Recovery
- ...and more



COMMUNITY ACTION  
PIONEER VALLEY

Access • Opportunity • Community

Baystate Health | ADVANCING CARE. ENHANCING LIVES.

## Community Resources

*The following list of community resources is not comprehensive. To learn more about local community resources please visit [www.413Cares.org](http://www.413Cares.org) and [www.look4help.org](http://www.look4help.org).*

---

### Armbrook Village

Armbrook Village provides residential housing for older adults in Westfield to enjoy an independent lifestyle with gracious accommodations, amenities, programs, and services that support their well-being, essential to maintaining good health and an enriching life.

[www.seniorlivingresidences.com/communities/westfield-armbrook-village](http://www.seniorlivingresidences.com/communities/westfield-armbrook-village)

---

### Ascentria Care Alliance

Strengthen communities by empowering people to respond to life's challenges. Services include child and family services, in-home care, language bank, mental health and disability services, services for new Americans, and older adults.

[www.ascentria.org](http://www.ascentria.org)

---

### Behavioral Health Network (BHN) The Carson Center

Offers services to address addiction, crisis services, family services, developmental services, mental health services, and domestic violence.

[www.bhninc.org](http://www.bhninc.org)

---

### Boys & Girls Club of Greater Westfield

Inspires and enables all young people, especially those who need us most, to reach their full potential as productive, caring, and responsible citizens.

[www.bgcwestfield.org](http://www.bgcwestfield.org)

---

### Brown Bag: Food for Elders Program

The Food Bank of Western Massachusetts provides a free bag of healthy groceries to eligible older adults once a month at local senior centers and community organizations.

[www.foodbankwma.org/get-help/brown-bag-food-for-elders](http://www.foodbankwma.org/get-help/brown-bag-food-for-elders)

---

### Caring Health Center (CHC)

CHC ensures that patients receive comprehensive care that addresses their cultural, economic, and language needs. Behavioral health specialists deliver services to address emotional and other issues. Provides nutrition education, group physical exercise, and other services to support healthy and productive lives among patients.

[www.caringhealth.org](http://www.caringhealth.org)

---

### Center for Human Development (CHD)

As one of the largest social service organizations in western Massachusetts, CHD delivers a broad array of critical services with proven effectiveness, integrity, and compassion.

[www.chd.org](http://www.chd.org)

---

### Community Legal Aid

Provides free civil legal services to low-income and elderly residents.

[www.communitylegal.org](http://www.communitylegal.org)

---

### Domas, Inc.

Revitalizes the downtown city district of Westfield by developing more affordable housing in the heart of the City of Westfield.

[www.domusinc.org](http://www.domusinc.org)

---

### Food Bank of Western Massachusetts

Our mission is to feed our neighbors in need and lead the community to end hunger.

<https://www.foodbankwma.org>

---

### Gándara Center

Gándara Center promotes the well-being of Hispanics, African Americans and other culturally diverse populations through innovative, culturally competent behavioral health, prevention, and educational services.

[www.gandaracenter.org](http://www.gandaracenter.org)

---

### Governor's Center

Provides post-acute services, rehabilitative services, skilled nursing, short- and long-term care through physical, occupational, and speech therapists; registered and licensed practical nurses; and certified nursing assistants. This is complemented by social services, activities, nutritional services, housekeeping, and laundry services.

[www.governorcenter.com](http://www.governorcenter.com)

---

### Hampshire & Hampden Drug Addiction Recovery Teams (DART)

The DART officer program is a collaborative effort with Hampshire County HOPE; members are patrol officers who volunteer to be part of this program in addition to their regular patrol duties; DART officers review log activities and identify people who have engaged in high-risk behavior as a result of narcotics addiction, work to meet with the person and offer resources, and may even transport a person to a local treatment facility.

[www.hampshirehope.org/dart/about](http://www.hampshirehope.org/dart/about)

---

### Head Start (Westfield Area)

Committed to providing limited-income families and their children with a Beacon of Hope and source of support for a brighter future, by providing high-quality comprehensive child development services to enrolled children and empowering families to achieve stability in their home environment.

[www.headstartprograms.org](http://www.headstartprograms.org)

---

### Healthy Hampshire

Focuses on reducing rates of chronic disease in its partner communities by effecting changes to policies and systems that encourage physical activity, healthy food access, improved patient care, and linkages between health care systems and community-level prevention activities.

[www.healthyhampshire.org](http://www.healthyhampshire.org)

---

### Highland Valley Elder Services (HVES)

Serves older adults and their families through collaboration, education, advocacy, and a range of programs designed to support them where they live.

[www.highlandvalley.org](http://www.highlandvalley.org)

---

### Hilltown Community Health Center (HCHC)

Creates access to high-quality integrated health care and promotes well-being for individuals, families, and our communities. Services include medical and dental care, behavioral health care, community programs, health education programs, insurance navigation, social services, family supports, and more.

[www.hchcweb.org](http://www.hchcweb.org)

---

### Jewish Family Services (JFS)

Provides behavioral health programs and new American programs, as well as supports for older adults.

[www.jfswm.org](http://www.jfswm.org)

---

### Mental Health Association (MHA)

MHA (Mental Health Association) helps people live their best life. We provide access to therapies for emotional health and wellness; services for substance use recovery, developmental disabilities and acquired brain injury; services for housing and residential programming, and more. With respect, integrity and compassion, MHA provides each individual served through person-driven programming to foster independence, community engagement, wellness, and recovery.

[www.mhainc.org](http://www.mhainc.org)

---

### Multicultural resource Center of Massachusetts (MRC)

The mission of the MRC is to promote well-being of the community through providing assistance to immigrants and refugees with integration into the American society while preserving their cultural heritage.

[www.mrcmasshelp.org](http://www.mrcmasshelp.org)

---

### Pioneer Valley Asthma Coalition

Community partnership that works to improve the quality of life for individuals, families, and communities affected by asthma.

[www.pvasthmacoalition.org](http://www.pvasthmacoalition.org)

---

### Samaritan Inn

A comprehensive program that teaches self-sufficiency and life skills to meet the needs of individuals and families experiencing homelessness, as well as provides beds for individuals and families in need.

[www.homelessshelterdirectory.org](http://www.homelessshelterdirectory.org)

---

### Tapestry Health

Provides sexual and reproductive health services, LGBTQIA+ and transgender health services, HIV health and prevention, family nutrition services, syringe access and disposal, overdose prevention, and community trainings.

[www.tapestryhealth.org](http://www.tapestryhealth.org)

---

### Tapestry Health: Harm Reduction

We believe access to compassionate, accurate, high-quality healthcare should be available to everyone. Tapestry provides safe spaces in all four counties of Western Mass where anyone can receive the care they need without fear of judgement or stigma.

All of Tapestry's Harm Reduction services are free, confidential, and available on a walk-in basis. All services are confidential. We do not report to police or immigration.

[www.tapestryhealth.org/harm-reduction](http://www.tapestryhealth.org/harm-reduction)

---

### Thom Child & Family Services

Offers an array of services to families, children, and other professionals, including early intervention, pregnancy support, and regional consultation.

[www.thomchild.org](http://www.thomchild.org)

---

### United Way of Pioneer Valley

Mobilizes people and resources to strengthen our communities. THRIVE program offers free services that help users overcome financial difficulties.

[www.uwpv.org](http://www.uwpv.org)

---

### Valley Eye Radio (VER)

Broadcasts local news and information to reading impaired listeners throughout the Pioneer Valley.

[www.valleyeyeradio.org](http://www.valleyeyeradio.org)

---

### Valley Opportunity Council (VOC)

Dedicated to eliminating poverty by providing the opportunity for our low- and moderate-income neighbors, families, and friends in the Greater Hampden County area to achieve greater independence and a higher quality of life.

[www.valleyopp.com](http://www.valleyopp.com)

---

### Viability - Forum House

Provides adults who have been socially and vocationally disabled by mental illness the opportunity to gain confidence and self-esteem, learn vocational skills, and obtain employment.

[www.viability.org/forum-house](http://www.viability.org/forum-house)

---

### Warrior's Art Room

The Warrior's Art Room is a 501(c) 3 non-profit organization whose mission is to provide veterans and their immediate family with a place to create art, materials to create art, and with instruction as needed.

[www.warriorsartroom.org](http://www.warriorsartroom.org)

---

### Way Finders

Confronts homelessness head-on in communities throughout western Massachusetts, including Hampden and Hampshire counties; targeted services help people experiencing homelessness with housing, real estate, employment support, and community services.

[www.wayfindersma.org](http://www.wayfindersma.org)

---

### Westfield Food Pantry

Provides groceries to Westfield residents in need.

[www.westfieldfoodpantry.org](http://www.westfieldfoodpantry.org)

---

### Westfield Senior Center / Council on Aging

The Westfield Council on Aging offers a wide range of services and programs to older adults. Our goal is to facilitate access to services available in Westfield by helping and making information readily available.

[www.cityofwestfield.org](http://www.cityofwestfield.org)

---

### Westfield State University (WSU)

Westfield State University is a public institution offering accessible quality undergraduate and graduate programs in the liberal arts, sciences, and professional studies. Our welcoming community focuses on student engagement and success. We contribute to the economic, social, and cultural growth of the northeast region by developing the knowledge, skills, and character essential for students to become responsible leaders and engaged citizens.

[www.westfield.ma.edu](http://www.westfield.ma.edu)

---

### YMCA of Greater Westfield

Offers recreation and physical health classes for youth through adults, including nutrition and diet.

[www.westfieldymca.org](http://www.westfieldymca.org)

## Hospital Resources

*The following list of hospital resources is not comprehensive. To inquire about additional hospital resources please visit [www.baystatehealth.org](http://www.baystatehealth.org).*

---

### Baystate Behavioral Health

Continuum of high-quality inpatient and outpatient care, information, support groups, and education. Child and adolescent psychiatric care, services for families, adult psychiatric care, and geriatric psychiatric care.

[www.baystatehealth.org/services/behavioral-health](http://www.baystatehealth.org/services/behavioral-health)

---

### Baystate Family Advocacy Center (FAC)

Our team provides culturally sensitive, comprehensive assessment of treatment needs, advocacy, and coordination of services for children and families after a forensic interview, a child abuse medical assessment, or a call on the intake hotline. We also provide evidence-based, trauma-focused individual and family therapy as well as group therapy for children and non-offending caregivers.

[www.baystatehealth.org/services/pediatrics/family-support-services/family-advocacy-center](http://www.baystatehealth.org/services/pediatrics/family-support-services/family-advocacy-center)

---

### Baystate Wellness on Wheels (WoW) Bus

Wellness on Wheels is a program of Baystate Health, supported by funding from TD Bank's Ready Commitment. Baystate Medical Center operate the WOW Bus. Wellness on Wheels—the WOW Bus—will travel to neighborhoods in the Springfield area providing low-cost or free screenings, health education, and counseling to people where they live and work. Our community-centered approach means our services and programs remain 'by the people, for the people'.

[www.baystatehealth.org/wowbus](http://www.baystatehealth.org/wowbus)

---

### Community Health Link (CHL)

A leading community-based provider of health care services in Central Massachusetts, including services for mental health, substance abuse, rehabilitation, and unhoused individuals and families.

[www.communityhealthlink.org/chl](http://www.communityhealthlink.org/chl)

---

### Comprehensive Adult Weight Management Program

Proven methods for weight management tailored to individuals' unique health needs and lifestyle.

[www.baystatehealth.org/services/weight-management](http://www.baystatehealth.org/services/weight-management)

---

### Diabetes Education Center

Complete range of services for evaluation, treatment, and management of diabetes and other endocrine disorders; education, information, classes, and support groups.

[www.baystatehealth.org/services/diabetes-endocrinology](http://www.baystatehealth.org/services/diabetes-endocrinology)

---

### Diabetes Self-Management Program

Help adult patients and their families learn to manage their diabetes and live full and productive lives.

[www.baystatehealth.org/services/diabetes-endocrinology](http://www.baystatehealth.org/services/diabetes-endocrinology)

---

### Heart and Vascular Care Services

Comprehensive diagnostics and treatment options for coronary artery disease, heart rhythm disorders (arrhythmias), heart failure, cardiac surgeries for adults and children, and cardiology clinical trials.

[www.baystatehealth.org/services/heart-vascular](http://www.baystatehealth.org/services/heart-vascular)

---

### Patient Family Advisory Council

Baystate Health Patient and Family Advisory Council is made up of a diverse group of patients, family members, and community members who represent the “collective voice of our patients and families”

[www.baystatehealth.org/about-us/community-programs/health-initiatives/patient-family-advisory-council](http://www.baystatehealth.org/about-us/community-programs/health-initiatives/patient-family-advisory-council)

---

### Physical Therapy Services

Information, resources, coaching and education, stretching, core strengthening, walking, and strength training to improve or restore physical function and fitness levels.

[www.baystatehealth.org/services/rehabilitation](http://www.baystatehealth.org/services/rehabilitation)

---

### Population-based Urban and Rural Community Health (PURCH)

The PURCH track in the UMass Chan Medical School – Baystate is a unique educational experience where students can focus on health care issues common to urban and rural under-served populations—and come to understand the complex interwoven social and environmental factors that affect them.

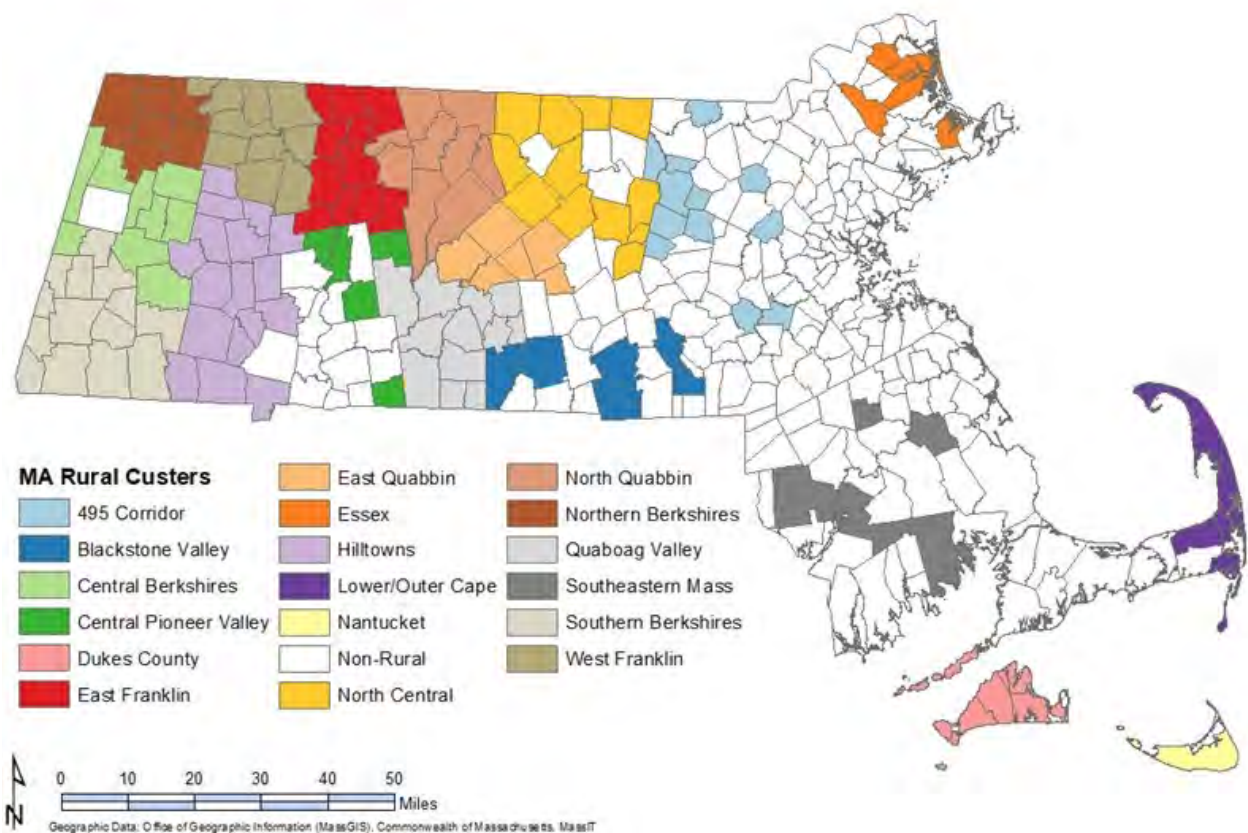
[www.baystatehealth.org/education-research/education/umms-baystate-campus/purch](http://www.baystatehealth.org/education-research/education/umms-baystate-campus/purch)

# 10. Appendices

# 10. Appendices

## Appendix 1: Additional Demographics

**FIGURE 29: Massachusetts Rural Clusters Map**



**Source:** Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, MassIT

**TABLE 3: Population Estimates, Communities Served by Baystate Noble**

Community Served by Baystate Noble	2019 Population Estimate
Hampden County	
Agawam*	28,696
Blandford	1,105
Brimfield	3,658
Chester	1,470
Granville	1,691
Russell**	1,470
Southwick	9,720
Tolland	530
Montgomery	798
Westfield	41,449
West Springfield	28,609
Hampshire County	
Huntington	2,058
<b>Total Population in the Communities Served by Baystate Noble</b>	<b>117,596</b>

\*Only the Feeding Hills section of Agawam is part of communities served by Baystate Noble

\*\*The village of Woronoco is in the eastern part of Russell and is part of communities served by Baystate Noble

**Source:** U.S. Census, ACS 2019 5-Year Estimates Data Profiles, specifically table DP05, Demographic and Housing Estimates

**TABLE 4: Sociodemographic Characteristics of Communities Served by Baystate Noble, 2016-2020**

2020 ACS Demographic Information	Massachusetts	Hampden County	Communities Served by Baystate Noble	Westfield	West Springfield
<b>Age</b>					
Median age (years)	40	39	42	39	37
Persons under 18 years, percent	20%	21%	19%	19%	21%
Persons 18-64, percent	63%	62%	64%	63%	64%
Persons 65 years and over, percent	17%	17%	17%	18%	15%
<b>Race and ethnicity</b>					
Latino/a/e or Hispanic	12%	26%	8%	10%	11%
Non-Latino/a/e or Hispanic					
White	71%	62%	90%	84%	78%
Black or African American	7%	8%	2%	1%	2%
American Indian and Alaska Native	0.1%	0.1%	0.2%	0.1%	0.4%
Asian	7%	2%	3%	3%	5%
Native Hawaiian and other Pacific Islander	0.0%	0.0%	0.1%	0.0%	0.0%

2020 ACS Demographic Information	Massachusetts	Hampden County	Communities Served by Baystate Noble	Westfield	West Springfield
Some other race	0.8%	0.2%	2%	0.2%	0.1%
Two or more races	3%	3%	3%	1%	3%
<b>Language spoken at home (population over 5)</b>					
Language other than English spoken at home	24%	26%	15%	16%	22%
<b>Educational attainment (population over 25)</b>					
Less than high school graduate	9%	14%	9%	11%	11%
High school graduate (includes equivalency)	24%	30%	29%	28%	27%
Some college or associate degree	23%	28%	29%	29%	30%
Bachelor's degree or higher	45%	27%	33%	32%	32%
<b>Income</b>					
Median household income (in 2020 dollars)	\$84,385	\$57,623	\$85,255	\$74,456	\$54,516

**Source:** U.S. Census, ACS 2016-2020 and 2020 Census Redistricting Data

## Appendix 2. Community Members and Partners Engaged in the 2022 CHNA Process

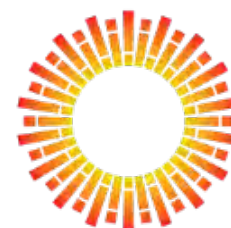
### *About the Consultant Team*

---

#### Lead Consultant

**Public Health Institute of Western Massachusetts' (PHIWM)** mission is to build measurably healthier communities with equitable opportunities and resources for all through civic leadership, collaborative partnerships, and policy advocacy. Our core services are research, assessment, evaluation, and convening. Our range of expertise enables us to work in partnership with residents and regional stakeholders to identify opportunities and put into action interventions and policy changes to build on community assets while simultaneously increasing community capacity.

[www.publichealthwm.org](http://www.publichealthwm.org)



**PUBLIC HEALTH INSTITUTE  
OF WESTERN MASSACHUSETTS**  
PARTNERS FOR HEALTH EQUITY

#### Consultants

Community Health Solutions (CHS), a department of the **Collaborative for Educational Services (CES)**, provides technical assistance to organizations including schools, coalitions, health agencies, human service, and government agencies. CHS offers expertise and guidance in addressing public health issues using evidence-based strategies and a commitment to primary prevention. CHS believes local and regional health challenges can be met through primary prevention, health promotion, policy and system changes, and social justice practices. CHS cultivates skills and brings resources to assist with assessment, data collection, evaluation, strategic planning, and training. [www.collaborative.org](http://www.collaborative.org)



*Collaborative for  
Educational Services*

**Franklin Regional Council of Governments (FRCOG)** is a voluntary membership organization of the 26 towns of Franklin County, Massachusetts. FRCOG serves the 725 square mile region with regional and local planning for land use, transportation, emergency response, economic development, and health improvement. FRCOG serves as the host for many public health projects including a community health improvement plan network, emergency preparedness and homeland security coalitions, two local substance use prevention coalitions, and a regional health district serving 15 towns. FRCOG also provides shared local municipal government services on a regional basis, including inspections, accounting, and purchasing. To ensure the future health and well-being of our region, FRCOG staff are also active in advocacy. [www.frcog.org](http://www.frcog.org)



**Pioneer Valley Planning Commission (PVPC)** is the regional planning agency for the Pioneer Valley region (Hampden and Hampshire Counties), responsible for increasing communication, cooperation, and coordination among all levels of government as well as the private business and civic sectors to benefit the region and to improve quality of life. Evaluating our region – from the condition of our roads to the health of our children – clarifies the strengths and needs of our community and where we can best focus planning and implementation efforts. PVPC conducts data analysis and writing to assist municipalities and other community leaders develop shared strategy to achieve their goals for the region. [www.pvpc.org](http://www.pvpc.org)



### *Regional Advisory Council*

**TABLE 5: Regional Advisory Council**

\*Coalition of Western Massachusetts Hospitals/Insurer member

Name (Last, First)	Title	Organization	Organization Serves Broad Interests of Community	Organization Serves Low Income, Minority, & Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
<b>Anderson, Kathleen</b>	Director of Community Benefits	Holyoke Hospital	X	X	
<b>Audley, Jen</b>	Project Coordinator - Community Health Improvement Plan (CHIP)	Franklin Regional Council of Governments (FRCOG)	X	X	X
<b>Borgatti, Monica</b>	Chief Operating Officer	Women's Fund of Western Massachusetts	X	X	
<b>Bruno, Kathleen*, and Smith, Shelly</b>	Health Management Program Manager	Health New England	X	X	
<b>Cairn, Sue</b>	Director of Healthy Families and Communities	Collaborative for Educational Services	X	X	
<b>Cardillo, Beth</b>	Executive Director	Arm Brook Village	X	X	
<b>Comerford, Jo</b>	Senator	Massachusetts State Senate	X	X	
<b>Dewberry, Beatrice</b>	Community Building & Engagement Manager	Way Finders	X	X	

Name (Last, First)	Title	Organization	Organization Serves Broad Interests of Community	Organization Serves Low Income, Minority, & Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
<b>Doster, Amanda</b>	Regional Projects Coordinator	Franklin Regional Council of Governments	X	X	
<b>Dukes, Cheryl L</b>	Director of Healthcare Outreach and Community Engagement	Baystate Franklin CBAC /UMass College of Nursing; BAYSTATE FRANKLIN CBAC	X	X	
<b>Evans, Brenda</b>	Community Liaison	University of Massachusetts, Amherst	X	X	
<b>Fallon, Sean</b>	Massachusetts Regional Director	Community Health and Well Being, Trinity Health of New England/Mercy Medical Center	X	X	
<b>Fludd, Walt</b>	Executive Director Samaritan Inn	Greater Westfield Committee	X	X	
<b>Frutkin, Jim</b>	Senior Vice President Business IFU	ServiceNet; Western Massachusetts Veterans Outreach	X	X	
<b>Gale, Roberta*</b>	Vice President, Community Health	Berkshire Health Systems	X	X	
<b>Garozzo, Sal</b>	Executive Director	United Cerebral Palsy Association of Western Massachusetts	X	X	
<b>Naunheim, Geoff</b>	Director of Community Investment	United Way of the Franklin & Hampshire Region	X	X	

Name (Last, First)	Title	Organization	Organization Serves Broad Interests of Community	Organization Serves Low Income, Minority, & Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
<b>Golden, Annamarie*</b>	Director, Community Relations	Baystate Health	X	X	
<b>Rosario, Brittney*</b>	Community Benefits Specialist	Baystate Health	X	X	
<b>Gonzalez, Chrismery</b>	Coordinator Program Lead, Office of Problem Gambling Prevention	Office of Racial Equity, Springfield Department of Health, and Human Services City of Springfield, Department of Health, and Human Services	X	X	X
<b>Gorton, George*</b>	Director of Research, Planning & Business Development	Shriners Hospital for Children - Springfield	X	X	
<b>Gramarossa, Gail</b>	Program Director	Town of Ware, Drug Free Communities Project	X	X	
<b>Harness, Jeff*</b>	Director, Community Health, and Government Relations	Cooley Dickinson Health Care	X	X	
<b>Harris, Aumani</b>	Community Engagement Facilitator	The Healing Communities Study, Boston Medical Center			
<b>Bidwell, John</b>	Executive Director	United Way of the Franklin & Hampshire Region	X	X	

Name (Last, First)	Title	Organization	Organization Serves Broad Interests of Community	Organization Serves Low Income, Minority, & Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
<b>Jones, Kimothy</b>	Project Manager SDoH (Public Health)	Baystate Health	X	X	
<b>Kent, Marian</b>	Strategic Grant Writer	Baystate Strategic Planning Team	X	X	
<b>King, Mary</b>	CFCE Coordinator/Family Center Director	Montague Catholic Social Ministries	X	X	
<b>Kinsman, Jennifer</b>	Director of Community Impact	United Way of Pioneer Valley	X	X	
<b>Lake, Eliza</b>	Chief Executive Director	Hilltown Community Health Center	X	X	
<b>Lamas, Kelly</b>	Project Coordinator	Baystate Springfield Educational Partnership	X	X	
<b>Lee, Jennifer</b>	Systems Advocate (former)	Stavros Center for Independent Living	X	X	
<b>Liu, Chung</b>	Senior Technical Manager	Massachusetts Municipal Wholesale Elec.	X		
<b>Lopez, Luz</b>	Executive Director	MetroCare of Springfield	X	X	
<b>Lytton, Kate</b>	Director of Research and Evaluation	Collaborative for Educational Services (CES)	X	X	
<b>Millman, Laurie</b>	Executive Director	Center for New Americans	X	X	

Name (Last, First)	Title	Organization	Organization Serves Broad Interests of Community	Organization Serves Low Income, Minority, & Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
<b>Mulkerin, Angela</b>	Service Director and Paramedic	Hilltown Community Health Center	X	X	
<b>Owens, Christo</b>	Resident			X	
<b>Robinson, Frank*</b>	Vice President, Public Health	Baystate Health	X	X	
<b>Rodriguez, Rafael</b>	Holyoke Coalition Coordinator	Western Massachusetts Training Consortium	X	X	
<b>Rozie, Cherelle, Mary Stuart, and Sean Fallon</b>	Regional Manager of Community Benefit	Trinity Health Of New England	X	X	
<b>Rufino, Tiffany and Latonia Naylor</b>	Regional Director	Parent Villages	X	X	
<b>Scott, Lamont</b>	Mentor	Men of Color Health Alliance	X	X	
<b>Steed, Ebony</b>	Advisor	Young Women's Advisory Council of Western Massachusetts	X	X	
<b>Tetreault, Janna</b>	Assistant Director, Community Services Department	Community Action Pioneer Valley	X	X	
<b>Toto, Sheila</b>	Senior Program Officer	Community Foundation of Western Massachusetts	X	X	

Name (Last, First)	Title	Organization	Organization Serves Broad Interests of Community	Organization Serves Low Income, Minority, & Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
Vrabel, Jennifer*	Executive Director of Communications, Planning, and Development	Berkshire Health Systems	X	X	
Walker, Phoebe	Director of Community Services	Franklin Regional Council of Governments	X	X	X

## Appendix 3. Glossary of Terms

**Ableism**—intentional or unintentional bias, oppression of, discrimination of, and social prejudice against people with disabilities and those perceived to have disabilities. Ableism creates barriers to equity in education, employment, health care, access to public and private spaces, etc. It is rooted in the belief that typical abilities are superior and people with disabilities need “fixing.”

**Built Environment**—man-made structures, features, and facilities viewed collectively as an environment in which people live, work, pray, and play. The built environment includes not only the structures but the planning process wherein decisions are made.

**Community**—can be defined in many ways, but for the purposes of the CHNA we are defining it as anyone that is not part of the Western Massachusetts Coalition of Hospitals/Insurer, which could be community organizations, community representatives, local businesses, public health departments, community health centers, and other community representatives.

**Community Benefits (hospitals)**—services, initiatives, and activities provided by Non-profit hospitals that address the cause and impact of health-related needs and work to improve health in the communities they serve.

**Community Health Needs Assessment (CHNA) and Implementation Plan**—an assessment of the needs in a defined community. A CHNA and a hospital implementation plan is required by the Internal Revenue Service for non-profit hospitals/insurers to maintain their non-profit status. The implementation plan uses the results of the CHNA to prioritize investments and services of the hospital or insurer’s community benefits strategy.

**Community Health Improvement Plan (CHIP)**—long-term, systematic county-wide plans to improve population health. Hospitals likely participate, but the CHIPs are not defined by communities served by the hospital and typically engage a broad network of stakeholders. CHIPs prioritize strategies to improve health and collaborate with organizations and individuals in counties to move strategies forward.

**Cultural Humility**—an approach to engagement across differences that acknowledges systems of oppression and embodies the following key practices: (1) a lifelong commitment to self-evaluation and self-critique, (2) a desire to fix power imbalances

where none ought to exist, and (3) aspiring to develop partnerships with people and groups who advocate for others on a systemic level.

### Data Collection

**Age-adjusted**—Age-adjusted rates are used in data analysis when comparing rates between geographic locations, because differing age distributions can affect the rates and result in misleading comparisons.

**Quantitative data**—information about quantities; information that can be measured and written down with numbers (eg, height, rates of physical activity, number of people incarcerated). You can apply arithmetic or statistical manipulation to the numbers.

**Qualitative data**—information about qualities; information that cannot usually be measured (eg, softness of your skin, perception of safety); examples include themed focus group and key informant interview data.

**Primary data**—collected by the researcher her/himself for a specific purpose (eg, surveys, focus groups, interviews that are completed for the CHNA).

**Secondary data**—data that has been collected by someone else for some other purpose but is being used by the researcher for another purpose (eg, rates of disease compiled by the Massachusetts Dept. of Public Health).

**Determination of Need (DoN) application**—proposals by hospitals for substantial capital expenditures, changes in services, changes in licensure, and transfer of ownership by hospitals must be reviewed and approved by the MDPH. The goal of the DoN process is to promote population health and increased public health value by guiding hospitals to focus on the social determinants of health with a proportion of funds allocated for the proposed changes.

**Digital Equity**—digital equity occurs when all individuals and communities have access to affordable and reliable broadband or Wi-Fi, access to affordable digital technology, and have the digital literacy needed for full participation in our society. Digital equity is necessary for community participation, employment, education, and access to services.

**Disability**—a physical, cognitive, developmental, or mental condition that interferes with, impairs, or limits a person’s ability to do certain tasks or engage in daily interactions. Disabilities can be visible, invisible, something a person is born with, something a person acquired, temporary, or permanent.

**Ethnicity**—shared cultural practices, perspectives, and distinctions that set apart one group of people from another; a shared cultural heritage.

**Food insecure**—lacking reliable access to sufficient quantity of affordable, nutritious food.

**Health**—a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (WHO).

**Health equity**—when everyone has the opportunity to attain their full health potential, and no one is disadvantaged from achieving this potential because of their social position or other socially determined circumstance. The highest standards of health should be within reach of all, without distinction of race, religion, political belief, economic or social condition (WHO). Health equity is concerned with creating better opportunities for health and gives special attention to the needs of those at the greatest risk for poor health.

**Hospital Community/ies Served** - includes the cities and towns in the HSA, plus additional geographic areas, or considers target populations or other specialized functions. For each Baystate Health CHNA cycle the most recent HAS for the hospital is provided by the Strategy Department. The hospital’s Community Benefits Advisory Council (CBAC) then review the HSA. Community stakeholders serving on the CBAC offer additional geographies, target populations, or specialized functions that should also be considered for the hospital community/ies served for the purpose of the CHNA. For the 2022 CHNA the hospital uses the term “community/ies served”.

**Hospital Service Area or “HSA”** - the local health care markets for a hospital. HSA is determined through the collection of zip codes whose residents receive most of their hospitalizations from the hospitals in that area. Data is based on case mix data (including inpatient discharges, emergency department visits, and observation stays) provided through the Center for Health Information and Analysis (CHIA).

**Housing insecurity**—the lack of security about housing that is the result of high housing costs relative to income, poor housing quality, unstable neighborhoods, overcrowding,

and/or homelessness. A common measure of housing insecurity is paying more than 30% of income toward rent or mortgage.

**Indigenous** —people who identify as Alaska Native, Native American, American Indian and/or a specific tribal affiliation.

**Inequities**—unfair, avoidable, or remediable differences in access, treatment, or outcomes among groups of people, whether those groups are defined socially, economically, demographically, geographically or by other dimensions (eg, sex, gender, ethnicity, disability, or sexual orientation).

**Intersectionality**—an approach advanced by women of color arguing that classifications such as gender, race, class, and others cannot be examined in isolation from one another; they interact and intersect in individuals' lives, in society, in social systems, and are mutually constitutive.

**Interpersonal violence**—interpersonal violence includes sexual and intimate partner violence, childhood physical and sexual abuse and neglect, and elder abuse and neglect.

**Intimate Partner Violence**—IPV or domestic violence refers to abuse or aggression occurring in a romantic, familial, or close relationship.

**Investment/Disinvestment**—investment refers to a set of strategies and instruments that target some communities for positive social outcomes and improvement to the built environment. Disinvestment describes the absence of investment in some communities over a long period of time.

**LGBTQIA+**—inclusive of lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual, agender, nonbinary, gender-nonconforming and all other people who identify within this community.

**Limited income**—having a relatively low or fixed income, not by choice, which may not be sufficient to meet all basic needs and to thrive.

**People who experience homelessness or are unhoused**—people who do not have permanent housing.

**Race**—a socially created construct, in which differences and similarities in biological traits among groups of people are deemed by society to be socially significant, meaning that people treat other people differently because of them, eg, differences in eye color have not been treated as socially significant but differences in skin color have.

**Asian**—people who identify as being of Asian or South Asian descent as well as Pacific Islanders.

**Black**—used instead of African American in this report in reference to the many cultures with darker skin, noting that not all people who identify as Black descend from Africa.

**Latino/a/e**—refers to the many cultures who identify as Latin or Spanish-speaking. Latino/a/e is a gender-neutral term, a nonbinary alternative to Latino/a. We chose to use Latino/a/e instead of Hispanic or Latino/a, noting that there is a current discussion on how people identify.

**People of Color or Communities of Color**—refers collectively to individuals and groups that do not identify as White or Indigenous.

**White**—refers to people who identify as White, Caucasian, or European American, and who also do not identify as Hispanic, Latino/a, or Latino/a/e.

**Social determinants of health**—the social, economic, and physical conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power, and resources at global, national, and local levels. (WHO)

**Social justice**—justice in terms of the distribution of wealth, opportunities, and privileges within a society.

**Structural poverty**—the concept of poverty as structural means that poverty is not primarily the fault of individuals or the result of their actions, but rather is an outcome of our economic system and how it is structured.

**Substance Use Disorder (SUD)**—refers to the recurrent use of drugs or alcohol that result in health and social problems, disability, and inability to meet responsibilities at work, home, or school.

**Systemic or Structural Racism**—the normalization and legitimization of policies and practices that exist throughout a whole society or organization, and that result in and support unfair advantage to some people and unfair or harmful treatment of others based on race.

**Transgender**—refers to anyone whose gender identity does not align with their assigned sex and gender at birth.

**Unconscious/Implicit Bias**—refers to the process of associating stereotypes or attitudes toward categories of people without conscious awareness.

## Appendix 4. Community Input Received

For this CHNA, the consultant team and other partners solicited extensive community input as described below. In addition, the Regional Advisory Council (RAC) provided input at monthly RAC meetings. (The members of the RAC are listed in Appendix 2) This input informed the identification and prioritization of significant health needs. For example, a panel of youth mental health experts presented to the RAC at its monthly meeting, which resulted in the elevation of this prioritized need as a regional focus area for the Coalition of Western Massachusetts Hospitals/Insurer.

### *4a. Community Input on the previous CHNA*

---

To solicit written input on our prior CHNA and Strategic Implementation Plan, both documents are available on our hospital system's website:

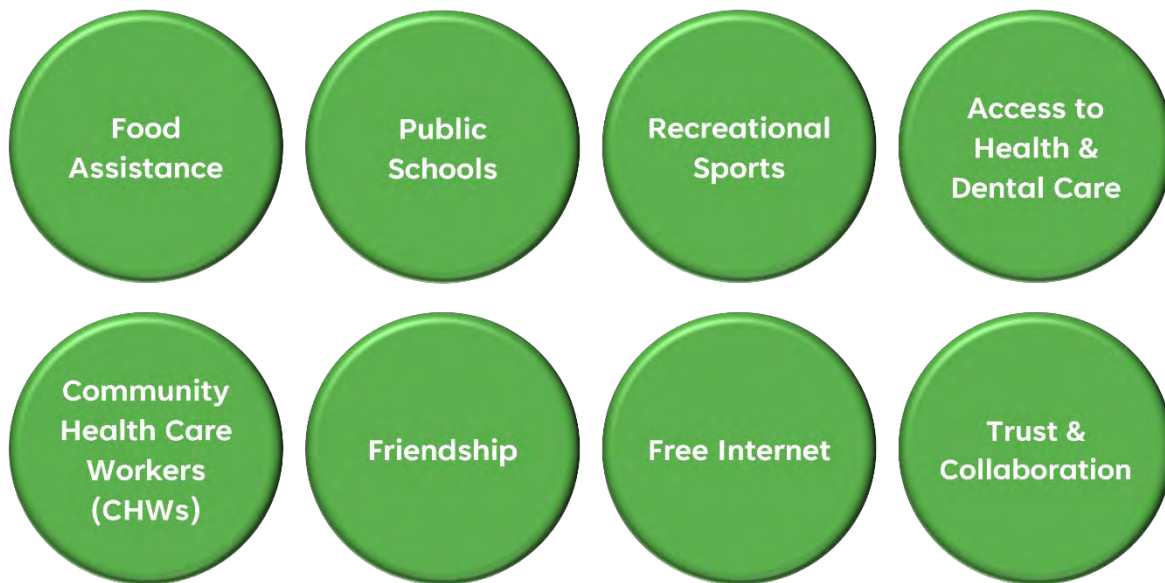
[www.baystatehealth.org/about-us/community-programs/community-benefits/community-health-needs-assessment](http://www.baystatehealth.org/about-us/community-programs/community-benefits/community-health-needs-assessment)

They are posted for easy access, and we include contact information for questions or comments. The links on our website also include an overview of Community Benefits as well as our annual filing with the Massachusetts Office of the Attorney General. We have verified and confirmed that we have not received any written comments since posting the last CHNA and Strategic Implementation Plan.

### *4b. Community Chats*

---

Community Chats are an integral part of the CHNA. They are a safe space for community members to come together and discuss important health issues in their community. Community Chats range from 30 to 60 minutes and are welcome to any and all members of the community. Participants in these chats include faith-based community members, older community members, representatives from various youth-serving organizations, members of community-based coalitions, state representative, health care workers, and non-profit organization members. The goal of these Chats is for people to get a better understanding of the CHNA, why it is done, and to highlight and reflect on the communities' assets and emerging health concerns. The Chats were held over several months during Fall of 2021. During the Chats, a facilitator asked reflective questions on all aspects of community health. Such aspects included culture, social connectedness, access to health care, education, and barriers to needs and care. Feedback received during the Chats was summarized and integrated into the findings of the CHNA to help inform prioritized health needs.

**FIGURE 30: What Helps You Live a Happy, Healthy & Productive Life?****FIGURE 31: Emerging Issues**

#### *4c. Community Chats Summary*

---

**Community Assets:** Across the board, residents express that even for assets that their communities have, access is not the same for everyone.

**Access to Basic Needs:** Generally, as one resident shared, “a lot of people are struggling to get their basic needs met.” COVID-19 significantly impacted access to, and the quality of, services by disrupting the networks people built to support one another. This continues to be a pressing issue.

**Housing:** Across Western Massachusetts, residents repeatedly expressed concern about the affordability, quality, accessibility, and safety of housing. The Massachusetts eviction moratorium ending may cause housing instability to increase, especially as this resident feels that housing laws favor landlords. A community member from Springfield worries about affordable housing for individuals with dementia, noting that systemic racism plays a role in this. Residents in the Franklin County/North Quabbin area noted a need for increased shelter for people without stable housing from the fall through the spring as well as supportive housing for people in recovery and existing incarceration facilities. For individuals with stable housing, there is a need for readily available funds to repair homes, as it feels like existing support has too many strings attached. Aging housing units are concerning, especially as individuals’ express hesitation to get their homes inspected for fear of mandatory reporting of problems and ultimately landing in a shelter.

**Transportation:** Residents in the Springfield area note that public transportation is an asset for their community though, for others across Western Massachusetts, it is still an area for improvement. People in Hampshire County shared that the need is much more apparent in the summer months when students are not in school. Community members flagged rural areas with low population density as needing improved options, so people do not have to rely on owning or borrowing private cars. Older people are also in need of wider options for transportation. One resident from Amherst said that “buses don’t respect the hours...I wait a long time for a bus (sometimes 2 hours),” highlighting frustration with unreliable bus schedules. Another participant from Springfield said, “Chronic health conditions impact our ability to transport ourselves.”

**Food:** Regionally, food came up quite a bit in conversation, both as an asset and a need, especially as inflation makes food increasingly unaffordable for individuals and families in Western Massachusetts. There was a sense that the COVID-19 pandemic forced increased

coordination and infrastructure, as in Springfield where mobile food banks increase access in areas that are otherwise food deserts. Individuals in the Franklin County/North Quabbin area felt that there was affordable food in their communities. Residents across Springfield said that food pantries, soup kitchens, farm shares and SNAP are all helpful resources, especially when individuals are having a tough time financially. Community members from Springfield also expressed pride in the strong agricultural system saying, “We are the states’ breadbasket because we produce a lot of food.”

This said, food access is not seen as an asset across all communities uniformly. Concerns about food insecurity were raised, especially from Springfield residents. Healthy food is available, but not nearly enough; residents expressed a desire for more healthy options rather than fast food. In Amherst, people shared that healthy food is more expensive and that serves as a barrier.

**Health Care Delivery Issues:** Health care delivery shifted significantly due to the COVID-19 pandemic and communities felt the impacts. Residents expressed appreciation for the hospital systems in the area, particularly for the emergency care access in Hampden, Hampshire, and Worcester counties. People in Hampden and Franklin counties also saw increased telehealth access as an asset to their communities, especially for those with disabilities. On the flip side, chat participants across Western Massachusetts were concerned about significant technology divides due to access or technical skill. Further, it was noted that online appointments can be tougher for children who have no desire to sit in front of a screen or people without private spaces in which they could take their appointments.

Community members emphasized the need for more providers generally, while individuals from the Pioneer Valley highlighted the lack of diverse providers including Black and brown, trans-competent, size-inclusive, and language-diverse medical professionals. Franklin residents shared the need for providers who are responsive to non-citizens, people in Amherst see a need for more specialists, and chat participants from Hampden County are worried about providers leaving the workforce and the need for geriatric specialists. An additional need that arose from conversation included additional mental health providers, as there seems to be a shortage and concern about increased demand coming out of the pandemic.

Affordability appears to be a barrier to care, as residents share those copays are often unaffordable and low, or no copays would be significantly better. Members in the Pioneer Valley expressed a desire for more providers who take MassHealth; others said the

process of transitioning insurance is uncoordinated and particularly challenging. People in Springfield are concerned about long waiting times and the lack of after-hours/weekend availability. Across the region, community members rely heavily on the services from hospital systems and would like to see improved care coordination that provides wraparound services including vision care.

**Mental Health and Substance Use:** Chat participants in the region, anywhere from urban Springfield to rural Franklin County, expressed concern about the levels of social isolation, anxiety, increased stress, and mental health challenges—especially in youth populations. The COVID-19 pandemic presented an upheaval of “normal” life, exacerbating existing mental health concerns and creating new issues. Residents have seen progress in the recognition of connections between trauma and mental health concerns as well as increased general attention toward the mental health of communities. Western Massachusetts residents speak highly of the formal and informal support systems that exist including, but not limited to, barbershops and hair salons, faith groups, and Alcoholics Anonymous (AA) or Narcotics Anonymous (NA). Residents of the Pioneer Valley noticed increased support for SUDs and progress in addiction/recovery was seen by those in the area prior to the pandemic. Preventing SUDs, supporting individuals with SUDs, and further educating youth about addiction all remain concerns across Western Massachusetts.

**Violence and Trauma:** Quaboag Hills residents brought about concerns about domestic violence dramatically increasing during the past few years, exacerbated by the pandemic. This mirrors concerning trends nationally. Individuals also noticed efforts to increase support for individuals affected by domestic violence.

**Access to Physical Activity:** Outdoor spaces, especially parks, bike paths, and other green spaces, are perceived to be significant assets to Western Massachusetts. Sidewalks also allow community members to safely travel and exercise outdoors, especially for individuals who are not in close proximity to fields and other spaces dedicated to exercise or recreation. Though recognized as an asset, other residents see room to improve recreational opportunities; one member commented on the need for child-friendly spaces, so they are not engaging in other activities such as riding their bikes unsafely.

**Issues Affecting Older Adults:** Residents in Western Massachusetts expressed concern for the older adults in their communities, especially since the COVID-19 pandemic exacerbated many existing issues. Social isolation is at a high, leaving people feeling alone and disconnected from communities and services that bring a sense of normalcy to

their lives. One older chat participant mentioned that mental health issues worsened due to the adjustment to remote life and social distancing. Another individual spoke about homebound individuals feeling stuck. Contact tracers were speaking with people who needed resources but there was no good way to facilitate the disbursement of those resources. The pandemic also heightened the need for medical and housing support and highlighted how impactful food insecurity is, especially in the older population. Though many are experiencing significant challenges, it was noted that the weekend meal service in Springfield has been a strong asset.

**Issues Affecting Black and Latino/a/e Communities:** In many Community Chats, members spoke about the impacts of the COVID-19 pandemic on Black and Latino/a/e communities. The public health crisis led to news headlines highlighting the health disparities and it forced people to pay attention. As one resident said, “COVID-19 put the biggest mirror on the fact that racism and systemic oppression still exists.” Across the region, residents noticed more conversations about disparities and the impact and manifestations of white supremacy, additional racial equity training, and an increased recognition of how important social determinants of health are in creating inequity. Chat participants have also seen progress via increased resources for BIPOC clinicians.

Pioneer Valley residents raised concern about punitive responses such as incarceration or the Department of Children and Family serving as barriers to fellow residents. The childcare burdens over the pandemic also placed a significant burden on mothers of color, according to residents. To quote one individual, “I feel that all issues are rooted at the intersection of racism that created these systems that uphold white supremacy characteristics creating those inequities.”

**TABLE 6: Community Chats Held for 2022 CHNA**

Organization	Population	Location	Number of Participants
<b>Franklin County</b>			
Community Action Pioneer Valley (CAPV) Youth Staff	CAPV Youth Staff	Greenfield	6
Just Roots Farm and Community Supported Agriculture (CSA)	Professional Staff	Greenfield	4
Franklin County/North Quabbin Community Health Improvement Planning	Community Members	Greenfield	20
Stone Soup Cafe	Older Adults	Greenfield	N/A
<b>Hampden County</b>			
Age-Friendly Coalition	Coalition members	Springfield	8
Alzheimer's Support group/Armbrook Village	Caregiver Support Group	Westfield	N/A
Baystate Community Faculty - UMass Medical School (UMMS)-Baystate	Baystate faculty	Springfield	8
Baystate Mason Square Neighborhood Health Center	Community Advisory Board	Springfield	7
Community Benefits Advisory Council Baystate Medical Center	Community Leaders	Springfield	15

Organization	Population	Location	Number of Participants
Baystate Noble Community Benefits Advisory Council	Community Leaders	Westfield	11
Food Bank of Western Massachusetts	Professional Staff at Food Bank	Hatfield	N/A
Springfield Healthy Homes / Pioneer Valley Asthma Coalition	Community Advocates	Springfield	21
Springfield Youth Health Survey	Planning Team	Springfield	N/A
Youth Mental Health Coalition	Representatives from Various Youth Serving Organizations	Springfield	N/A
Visionary Club of Greater Springfield	Serving blind and visually impaired residents	Chicopee	20
<b>Hampshire County</b>			
Baystate Wing Hospital's weekly Compass Huddle	Baystate Health Eastern Region's Managers	Palmer	25
Community Benefits Advisory Council Baystate Wing	Community Leaders	Ware	15
Quaboag Hills Community Coalition	Social Service Providers and Community Members from the communities served by Baystate Wing	Ware	14
Quaboag Hills Substance Use Alliance	Service Providers, Schools, Law Enforcement, Community Members, Faith Leaders	Ware	15

Organization	Population	Location	Number of Participants
<b>Western Massachusetts</b>			
Health New England	Behavioral Health, Care Management, and Quality departments	Western Massachusetts	9
Health New England	Health New England Associates	Western Massachusetts	17
Regional Advisory Council (RAC)	Community Representatives, Organization Representatives, Coalition Members	Western Massachusetts	20

#### *4d. Survey of Public Health Officials*

The consultant team conducted an anonymous survey of public health officials and agents in the four counties of western Massachusetts during fall 2021. A summary of Hampden County results, general western Massachusetts themes, and a table on the most pressing issues are provided below.

#### **Summary of Hampden County Results**

- Of 17 respondents, 9 were health directors or agents; 10 have been working in Public Health in the region for 5+ years.
- Mostly white women (10 of those who identified); only one respondent identified as non-white (mixed race).
- Most did a variety of COVID-related work, including contact tracing, mask enforcement, communications, vax clinics, and more.
- In an open-ended question, participants noted need for improved communication and information (9), although specifics vary:
  - Culturally and linguistically appropriate information is insufficient.
  - Access to broadband is a concern.
  - Also mentioned were mental health and substance abuse services (4) and access to fresh food (3).

- The three most urgent needs from the checklist included:
  - mental health/substance abuse (7)
  - transportation in general (6), lack of transportation to medical services (5)
  - limited availability of providers (6)
  - health literacy (6)
  - resources/access to digital technology (5)
  - basic needs (5).
- Mental health and communication appear in both questions (open response and prompted) as major issues.
- Special populations in need of care
  - Elderly (7)
  - Russian (4)
    - A few specifically noted a tendency among Russian speaking population to distrust government, avoid vaccine, not believe government sources.
  - Black/Latino populations (2)
  - Low income (2)
- Assets
  - COAs (5)
  - First responders, municipal departments
  - Informal groups; neighbors helping neighbors; church groups
  - Local agencies and organizations, including Holyoke Community College, Holyoke Health Center, Behavioral Health Network.
- General feeling that there is little contact or collaboration between hospitals and insurers and local public health systems. Hospitals should listen more to local groups, work with them better, be more transparent.

### General Themes among Four Counties

- Enforcing mask mandates and communicating with the public were largest roles for public health workers in Hampshire and Berkshire counties. Hampden and Franklin Counties participants were more likely to take on more varied roles in COVID work (contact tracing, communications, mask enforcements, clinics, and more).
- Transportation and support for older adults were two themes that appeared in all four counties.

- There is also general concern over limited income families and people. This is a big umbrella that includes homelessness, lack of affordable housing, limited access to healthy foods, and so on.
- Communication is another theme- better communication between state and local officials; between local officials and the public; across cultures and languages; and between hospitals and local public health workers; additionally, a lack of high-speed internet is a problem across the board. Franklin County respondents noted the need for a centralized response across the county and more local access to news and information (as opposed to news from Boston/Springfield/Albany).
- COAs and senior centers have been key players in improving public health. This was a resounding sentiment across all counties.
- Other key players include local nonprofits, churches, and social service groups. People stepping up, volunteering time and resources, and checking on neighbors were also crucial.
- Berkshire County has better communication and collaboration between local public health workers and hospitals, but still has room for improvement. Respondents in other counties mostly said there was no collaboration.

**TABLE 7: Community and Health Issues Identified as Most Pressing**

<b>MOST PRESSING ISSUES (prompted)</b>	<b>REGION (n=69)</b>	<b>Berkshire (n=15)</b>	<b>Franklin (n=22)</b>	<b>Hampden (n=17)</b>	<b>Hampshire (n=14)</b>
<b>Community Level Factors:</b>					
Limited availability of providers	43%	33%	73%	35%	21%
Transportation general	42%	47%	45%	35%	36%
Safe and affordable housing	36%	60%	45%	24%	14%
Access to digital technology	26%	27%	27%	29%	14%
Lack of resources to meet basic needs	25%	13%	18%	29%	43%
<b>Health Conditions and Behaviors:</b>					
Mental health and substance use	36%	33%	27%	41%	43%
Chronic conditions	22%	33%	23%	24%	7%

**TABLE 8: Most pressing issues (open response)**

*\*Communication issues are about covid, vaccines, etc.*

REGIONAL SUMMARY (n=69)	Berkshire (n=15)	Franklin (n=22)	Hampden (n=17)	Hampshire (n=14)
Communication and health information (including digital access issues, culturally appropriate). Transportation. Basic needs/food access. Access to mental health services.	Health Information and Communication (including reliability, dissemination, and digital access).	Isolation, particularly among elderly. Transportation. Communication (including reliability, dissemination, and digital access).	Communication and access to information (Including culturally and linguistically appropriate, and digital access). Mental health services. Basic needs.	Transportation. Basic needs. Communication.

#### 4e. Focus Groups

##### Focus Group Report: Basic Needs

Primary Hospital: Baystate Noble Hospital, Baystate Medical Center

Topic of Focus Group: Access to Basic Needs for Older Adults -- Westfield Senior Center

Date of Focus Group: June 2, 2022

Facilitator: Lisa Ranghelli

Note Taker: Alisa Ainbinder

##### Executive Summary

- A. Participant Demographics:
  - a. Six participants – five women and one man
  - b. All were older adults over 65 and as high as 94
  - c. All participants were White
- B. Areas of Consensus:
  - a. Health care is often unaffordable

- i. Having to spread appointments apart to make sure they can afford food as well as co-pays and any other medical expenses
  - ii. Even on MassHealth, care is unaffordable
  - iii. Medic alert buttons are expensive, especially ones that work outside the confines of a home
  - iv. Emergency care is expensive even if the person is not admitted
- b. Trouble reaching a person at the doctor's office
  - i. One participant drives to office to ensure she can speak to someone
  - ii. Experiences on the phone listening to music endlessly until you hang up
  - iii. If someone answers, feeling like people do not understand what they need
  - iv. The "talking machines" and automated systems to direct patients are confusing
- c. Billing is sent in bits and pieces; this makes it tough to keep track
- d. Participants do not have or use credit and debit cards, which can be a barrier in a medical setting if cash and checks are not accepted
  - i. One participant shared story of being turned away from Urgent Care, but son paid with a card
- e. Transportation is lacking
  - i. Someone at the senior center drives others around and there are volunteer groups who help, but the need is still there
  - ii. Gas is expensive so it is a consideration when needing to go somewhere
- f. Desire for companionship
  - i. Senior center helps to provide a space to socialize with others
  - ii. Missing dogs and the associated companionship
- g. Participants are frugal to live affordably and leave money for medical care
  - i. Using sales at the grocery store, keeping old cars and appliances, cooking, and baking from scratch



## Key Issues

Question	Synthesis of Responses
<p><b>1. What are the top basic needs for you and people similar to you?</b></p>	<ul style="list-style-type: none"> <li>• Copay costs               <ul style="list-style-type: none"> <li>○ \$40-60 for specialists, \$20 for physical therapy</li> <li>○ Respondents cannot eat if they have too many appointments in a week they have to pay for</li> </ul> </li> <li>• Payment/Billing               <ul style="list-style-type: none"> <li>○ Noble sends bits and pieces of bills</li> <li>○ Do not have credit or debit cards; went to urgent care and because of COVID, they were not taking cash or checks. Would have been turned away and forced to go to emergency department (ED) if son had not been able to pay for it. In ED, they take insurance and will bill you, but they hear they should not go to the ED.</li> <li>○ Another story of going to urgent care feeling unwell but had to walk home despite having the money for it (but no cards).</li> </ul> </li> <li>• Transportation               <ul style="list-style-type: none"> <li>○ Right now, one of the members of the focus group does a lot of driving of other people around. They also have volunteers/companion programs to help you.</li> <li>○ Would be nice to have a van to take them to doctor's appointments or to the store but must consider insuring it, driving, maintenance.</li> <li>○ But Southwick can manage and has a van.</li> </ul> </li> <li>• Community               <ul style="list-style-type: none"> <li>○ Not easy being older and feeling clumsy; want a dog for companionship</li> <li>○ Pre-pandemic times: older adults go to the center to talk and converse and enjoyed it; people could socialize and make friends</li> </ul> </li> </ul>
<p><b>2. Given the trouble with medical bill affordability, how do you get by?</b></p>	<ul style="list-style-type: none"> <li>• Look for sales</li> <li>• Plant a garden and do not go anywhere</li> <li>• Know that food prices will skyrocket</li> <li>• Keep old cars, the TV is 40 years old, washing machine is 45 years old</li> <li>• Go to meat department for yellow ticket items (marked down)</li> <li>• Go to senior center twice a week for meals</li> <li>• Make everything themselves and bake, including bread</li> </ul>

Question	Synthesis of Responses
3. If you could wave a magic wand, what would you change?	<ul style="list-style-type: none"> <li>• Doctor's office would answer the phone</li> <li>• Would separate out doctors who do gerontology because they understand the population's needs and afflictions. Some of the doctors are impatient and if older adults are not outspoken, they are left behind</li> <li>• Food prices would decrease, emergency room prices would go down <ul style="list-style-type: none"> <li>○ Conversation about how expensive allergy shots and insulin are</li> </ul> </li> <li>• Doctors would make home visits</li> </ul>

### Focus Group Report: Basic Needs

Primary Hospital: Baystate Noble Hospital, Baystate Medical Center

Topic of Focus Group: Access to Basic Needs, perspective of community-based "Connectors"

Date of Focus Group: 5/12/22 and 5/16/22

Facilitator: Lisa Ranghelli

Note Taker: Alisa Ainbinder

### Participants:

- Johanna Farrell, The Food Bank of Western Massachusetts
- Maureen Perreault, Behavioral Health Network
- Chris Puffer, Hilltown Community Health Center
- Gabriel Quaglia, Tapestry Health
- Gricelides Saex, Baystate Health
- Aileen Santana, Greater Springfield Senior Services

### Executive Summary

#### E. Areas of Consensus:

##### a. Lack of comprehensive support center for people who are unhoused

- i. Place to send and receive mail, shower, wash clothes, perhaps case management support—which increases employment opportunity

##### b. Identification documents (such as license or birth certificate)

- i. Identification documents needed to get into suboxone clinic but cost-prohibitive

**c. Lack of social support**

- i. Families less involved with older adults during pandemic; less eyes means fewer opportunities to identify needs
  - 1. Using meal delivery as a way to informally conduct wellness checks for folks who decline additional services during pandemic especially
  - 2. Keeping eye out for people who don't show up to appointments or returning calls when it's out of character
- ii. Concerns about isolation and grief

**d. Housing**

- i. Cost barriers: people outpriced, utilities unaffordable
- ii. With rent increasing, tougher to attach Department of Mental Health subsidies to effectively cap rent for folks to make it more affordable
- iii. Seeing many unhoused referrals (concerns about secondary health issues in unhoused folks with substance use disorder [SUD] and the danger of cold temperatures)
  - 1. Potentially due to instability in their lives, benefits may have lapsed, may have been evicted or housing situation untenable
- iv. Many are living paycheck to paycheck; even if technically housed, they have very limited income
- v. Housing comes with stipulations of sobriety. Need more housing programs that don't have requirements banning use of drug/alcohol/substances

**e. Food**

- i. Many unaware of support such as food pantries; lack of prepared meals in evening
- ii. Nowhere for unhoused folks to store or prepare food
- iii. Inflation impact (food stamps don't cover what they need now)

**f. Transportation**

- i. Cost barriers for public transportation, especially for older adults
  - 1. Gas prices are so high it may be unaffordable to ask a family member for a ride and to reimburse for gas
- ii. Transportation disruption is a big problem for people with SUD
  - 1. If on methadone, they need to go every day
- iii. Inaccessible for people who are not presently able-bodied because there may not be anywhere to sit while waiting for the bus

**g. Difficulties with case management**

- i. Especially for unhoused people or folks with SUD, expecting them to navigate systems is often unrealistically difficult
  - 1. They're expected to conform to expectations, and they are being penalized for anything possible
- ii. Case managers overwhelmed by volume of need
- iii. Services may have requirements such as specific insurance, age cap, etc.

**h. Language support and literacy**

- i. Some transportation scheduling services don't have anyone who speaks Spanish, so people report using Google Translate to make do
- ii. Medical appointments turned down or cancelled because provider cites lack of translation lines available
- iii. Expectations may not be realistic, such as expecting patients to read and write

**i. Emotional support**

- i. Seems like people may be getting used to isolation, worrisome for people serving elders
- ii. People expressing suicidal ideation or sharing that they relapsed to community-facing folks even though they aren't mental health clinicians because there is existing trust
- iii. People feel dehumanized or not seen as equal humans; avoid seeking services, even if necessary

**j. Technology support**

- i. So much online, people who don't or can't use technology are left out. Elderly folks especially left behind

**F. Key Recommendations:**

- a. Services have flex hours, not just available 9-5
- b. Better health care, and more understanding that different communities have varying needs
- c. Address housing and identification issues holistically instead of tweaking here and there. Systems intersect to create layered barriers.
- d. Start over and rebuild new city; reforming approaches lacks creativity. Would invite different segments of community to do visioning about what is most impactful rather than throwing money at things without clear visions. Bring voices together and envision better version of society for our children and us. Greener version

- e. Mental health support – specifically allowing people who need to utilize a psychiatric unit to stay for a longer period of time
- f. Discharge planning post-hospital stay is weak. In need of improved coordination to support folks better
- g. Additional funds to be used for the random, unexpected pieces needed when engaging in case management; refers to funding the “gray area”

**G. Quotes:**

- a. “You have to get really lucky. Like you can get a free ID sometimes, maybe, but usually not.”
- b. “People don’t realize there’s things they can do to fight the eviction. Or that there might be prevented eviction prevention services. And so they’re just ending up homeless sometimes for the first time and they don’t know that there’s some things that could have happened to prevent that.”
- c. “Actually, we have a patient today. He’s been missing for the last I will say three weeks we didn’t know why he was missing his appointments, no shows, nothing later, and then we just find out his car broke...”
- d. “It’s [public transit] expensive for older adults, because each ride...or you could arrange if you’re spending \$3 to go if it’s within the same city, and \$3 to come back, or \$3.50 or \$4 depending which city you’re going to for any errand or anything like that. So I won’t call it free transportation.”
- e. “They [unhoused folks, sometimes with SUD] get frustrated and discouraged and they stop so it’s sometimes a lot. They get like three steps forward and then two steps back a lot. And kind of a lot of it is expecting them to like fit into a system... and people will kind of help move them along that and keep them motivated and try to penalize them for anything that they can.”
- f. “We’re [case managers] having a really hard time; it’s really difficult. We’re not getting people placed and it’s horrible. And this is a catastrophe.”
- g. “It’s more like ‘I haven’t followed up with my doctor yet, or I haven’t gone to my sister’s yet. I’m just too scared.’ There’s been too many ups and downs with COVID.”
- h. “I think the social opportunities is key especially for my elders who are suffering from depression, isolation from their family members, from friends.”
- i. “What I find is that not only do they [older adults] want to talk, but they need some...they need to just see something different from what they are forced to, to look at every day. You know, aside from their four walls, the same tree...”

- j. “I mean, my folks are all on either SSDI or SSI. And, you know, now they’re raising rents to like \$1,200 and...they can't afford it. And we are we do have some DMH subsidies, but they're even difficult now to attach to these apartments because the rate of the apartment is too high to attach our subsidies to so that’s a whole ‘nother stumbling block. So it's quite a crisis. It really is quite a crisis.”
- k. “Because in what, well, I would imagine [is] most places but Westfield, certainly, the rent increases have been really, really difficult for our folks. So that's, that's huge.”
- l. “I think housing is just a crisis all the way around”
- m. “And when we house folks in our subsidies, we tend to make sure they're on a bus line. Although we provide transportation too, but it's always a good thing for them to be independent if they can.”
- n. “The [inpatient psychiatric] stays are pretty short term and I know that's an insurance issue and I'm not pointing my fingers at any particular unit or hospital. But it's pretty short-term treatment and sometimes it's just not enough and so sometimes it takes more than one hospitalization, whereas had they stayed a little bit longer and they might have stabilized a little bit more and been able to come out and be more successful.”
- o. “In the many, many years that I’ve done this, I’ve not had the amount of substance use issues [that is present now]”

## Key Issues

Question	Synthesis of Responses
<p>1. Top 3 needs in our region that you see your clients or program participants requesting help with?</p>	<ul style="list-style-type: none"> <li>• Employment               <ul style="list-style-type: none"> <li>○ Referrals to jobs, skill building (resume, applying, interviewing)</li> <li>○ Lack of comprehensive “drop-in center” for unhoused folks</li> <li>○ Place to send/receive mail, shower, wash clothes, perhaps case management support—increases employment opportunity</li> </ul> </li> <li>• Identification Documents               <ul style="list-style-type: none"> <li>○ Cost barriers, especially highlighting unhoused folks</li> <li>○ Northampton has grant money (\$2-3k/year) to help offset license/birth certificate costs</li> <li>○ Someone without an ID can’t get housing without birth certificate that’s in another state and he doesn’t have the \$20 needed. Also can’t get in the suboxone clinic without ID.</li> </ul> </li> <li>• Social support               <ul style="list-style-type: none"> <li>○ Families less involved with older adults during pandemic; fewer eyes means less ability to identify needs</li> <li>○ Use meal delivery as a way to informally conduct wellness checks for folks who decline additional services during pandemic especially</li> <li>○ Also folks keeping eye out for people who don’t show up to appointments or returning calls when it’s out of character</li> <li>○ Concerns about isolation and grief</li> </ul> </li> </ul>
<p>2. What are you seeing as barriers to accessing these things? How is this playing out?</p>	<ul style="list-style-type: none"> <li>• Housing (safe, affordable)               <ul style="list-style-type: none"> <li>○ Cost barriers                   <ul style="list-style-type: none"> <li>➤ Folks outpriced, need for affordable utilities</li> <li>➤ One person’s folks are primary on SSDI or SSI and rent increasing to around \$1,200 and they can’t afford it</li> <li>➤ With rent increasing, tougher to attach Department of Mental Health subsidies to effectively cap rent for folks to make it more affordable</li> </ul> </li> <li>○ Folks unaware of services to support when facing eviction</li> <li>○ Many new referrals are unhoused                   <ul style="list-style-type: none"> <li>➤ Seeing lots of secondary health issues in folks unhoused with SUD (endocarditis, infections, MRSA)</li> </ul> </li> </ul> </li> </ul>

Question	Synthesis of Responses
	<ul style="list-style-type: none"> <li>➤ Cold temperatures (seeing frostbite or people will walk around all night and try to find somewhere indoors during day) <ul style="list-style-type: none"> <li>▪ Possibly affecting mental health when not sleeping for days at a time</li> </ul> </li> <li>○ Plenty of people living paycheck to paycheck even if technically housed, really low-income</li> <li>○ Housing comes with stipulations of sobriety. Need more housing programs that don't have drug/alcohol/substance requirements</li> <li>• Food <ul style="list-style-type: none"> <li>○ Unaware of support such as food pantries; lack of prepared meals in evening</li> <li>○ Nowhere for unhoused people to store or prepare food if they get it</li> <li>○ Inflation impact (food stamps aren't covering what they need now)</li> </ul> </li> <li>• Transportation <ul style="list-style-type: none"> <li>○ Cost barriers, trouble navigating (confusion)</li> <li>○ Disruption of transportation is big problem for folks with SUD <ul style="list-style-type: none"> <li>➤ If on methadone, they need to go every day</li> </ul> </li> <li>○ Inaccessible for people who are not presently able-bodied <ul style="list-style-type: none"> <li>➤ Nowhere to sit that's appropriate when waiting for bus</li> </ul> </li> <li>○ Gas prices so high it's unaffordable to ask family member for ride then pay for gas</li> </ul> </li> <li>• Low threshold case management <ul style="list-style-type: none"> <li>○ Especially for unhoused people or folks with SUD, expecting them to navigate systems is often unrealistically difficult</li> <li>○ Case managers are overwhelmed by the volume of need</li> <li>○ Services may require special insurance, age requirement, etc.</li> </ul> </li> <li>• Language support/literacy <ul style="list-style-type: none"> <li>○ One transportation scheduling service doesn't have people who speak Spanish; people cite using Google Translate</li> <li>○ Medical appointment barriers (turned down/cancelled appointments and provider cites lack of translation lines available) <ul style="list-style-type: none"> <li>➤ Few interpreters in person</li> </ul> </li> </ul> </li> </ul>

Question	Synthesis of Responses
	<ul style="list-style-type: none"> <li>○ Organizations' expectations of patients and what they're supposed to do not realistic at times; some people cannot read and/or write</li> <li>• Emotional support/ social opportunities <ul style="list-style-type: none"> <li>○ Seems like people may be getting used to isolation which is worrisome for folks serving elders</li> <li>○ People expressing suicidal ideation or sharing that they relapsed to community-facing folks even though they aren't mental health clinicians because there is existing trust</li> <li>○ People feel dehumanized or not seen as equal humans; avoid seeking services, even if necessary</li> </ul> </li> <li>• Fresh food/produce</li> <li>• Technology support <ul style="list-style-type: none"> <li>○ So much online, people who don't/can't use technology left out. Elderly folks especially left behind.</li> </ul> </li> <li>• Services with flex hours, not just 9 to5</li> </ul>

Question	Synthesis of Responses
<p><b>3. Reflecting back on the top three needs you identified, if you could wave a wand and make a change in how things are done in our region, what would you do? What do you see as a solution or improvement to the ways things are right now?</b></p>	<ul style="list-style-type: none"> <li>• Better health care (more understanding that different communities have different needs) <ul style="list-style-type: none"> <li>○ Discharge planning post-hospital stay is weak. In need of improved coordination to support folks better</li> </ul> </li> <li>• Address housing and identification issues holistically instead of tweaking here and there. Systems intersect to create layered barriers. <ul style="list-style-type: none"> <li>○ Notes the tension and stress experienced by folks in coordination/case management roles</li> </ul> </li> <li>• Start over and rebuild new city; reforming approaches lacks creativity. Would invite different segments of community to do visioning about what is most impactful rather than throwing money at things without clear visions. Bring voices together and envision better version of society for our children and us. Greener version.</li> <li>• Used car engine analogy: want to put time on hold so they can do the necessary maintenance that's needed to run efficiently</li> <li>• Food delivery for quarantined folks</li> <li>• Mental health support – specifically allowing people who need to utilize a psychiatric unit to stay for a longer period of time</li> <li>• Funds to be used for the random, unexpected pieces needed when engaging in case management; refers to funding the “gray area”</li> </ul>

#### 4f. Key Informant Interviews on Youth Mental Health

The consultant team conducted Key Informant Interviews (KIIs) on the prioritized need of Youth Mental Health during winter 2021-2022 and also attended webinars, trainings and events related to this topic. These data gathering opportunities are summarized in the table below, followed by a detailed summary of the KIIs.

**TABLE 9: Respondents Participating in Key Informant Interviews**

Name (Last, First)	Title	Organization	Organization Serves Broad Interests of Community	Organization Serves Low-Income, Minority, & Medically Underserved Populations	State, Local, Tribal, Regional, or Other Health Department Staff
<b>Greater Westfield Area and Baystate Noble Hospital</b>					
<b>Alaina Lyon</b>	Senior Program Manager	Behavioral Health Network	x	x	
<b>Britton Percy</b>	Internist	Baystate Health	x	x	
<b>Carrie Fiordalice</b>	School Social Worker/Adjustment Counselor	Westfield Public Schools	x	x	
<b>David Bjorklund</b>	Assistant Behavioral Health Director	Hilltown Community Health Center, Inc.	x	x	
<b>Jennifer Cox</b>	Director of Behavioral Health	Baystate Health	x	x	
<b>Joeli Hettler</b>	Division Chief, Pediatric Emergency Department	Baystate Medical Center	x	x	
<b>John Fanton</b>	Child Psychiatrist	Baystate Medical Center	x	x	
<b>Sundeep Shukla</b>	Emergency Department Chief	Baystate Noble Hospital	x	x	
<b>Bo Sullivan</b>	CEO	Boys & Girls Club of Greater Westfield	x	x	
<b>Mollie Hartford</b>	Development & Outreach Director	It Takes a Village	x	x	

#### *4g. Summary of Findings from Qualitative Inquiry on Youth Mental Health in Communities Served by Baystate Noble*

---

The essential question driving this study was: What are some critical ways hospitals and health insurers can facilitate community, provider, family, and school collaboration to support young people's mental health?

To address this question, the findings presented below cover four essential sub-questions, as well as other topics that respondents identified.

1. How do youth in diverse communities conceive of “mental health”? Who do they turn to? Who do they trust for guidance?
2. What are the current platforms for community support those hospitals can build on in collaboration with others?
3. What effective models exist in western Massachusetts (such as collaboration between mental health providers and schools or Primary Care)?
4. How can youth be involved in building more effective support systems?

#### *Methods*

---

The thematic summary is based on semi-structured in-depth interviews conducted with 10 key informants working in mental health or youth development roles in the greater Westfield area. Interview questions and the ensuing conversations were informed and adjusted based on the areas of expertise of the respondents.

The roles and self-identified characteristics of the respondents are as follows:

##### **Professional roles**

- 6 mental health providers, clinical program managers, or affiliated providers
- 2 school-based counselors
- 1 coordinator of extracurricular programs for youth
- 1 employee of a youth-supporting social service agency

##### **Identity characteristics:**

- 5 respondents identified as female and 4 identified as male; 1 did not report their gender
- 9 white people; 1 did not report their race
- 0 people of Latino/a/e origin
- Age range: mid 20's - mid 50's

**Services areas covered:**

- Most of the respondents' work is with residents of Hampden County
- 2 respondents' work with residents of the southern Hilltowns, including Hampshire and Hampden counties
- 2 respondents focused specifically on the greater Westfield area

Staff at the Collaborative for Educational Services conducted interviews using Zoom videoconferencing. All of the interviews were individual (one on one conversations). The findings included in this summary are based on interviews facilitated and analyzed by a White, professional, formally educated woman. We provide this information to be transparent and to acknowledge that the identity characteristics of research staff may influence the flow and content of interviews, as well as the analyst's interpretation of findings. To promote respondent comfort and choice, in our initial outreach to key informants, we asked if there were certain characteristics they would like in an interviewer (for example, gender identity, race, ethnicity, or language abilities) and did our best to accommodate requests. Respondents were offered the option of using the video option or switching off cameras, were reminded that they can skip any question or opt out of the interview at any time and were invited to offer their own topics to discuss to better understand issues affecting young people's well-being.

### *Constraints and Limitations of this Study*

---

Due to time constraints and limited initial recommendations for key informants provided by the Coalition, the sample of interviewees represents a fairly narrow population, primarily consisting of mental health providers. The qualitative team initially received the contact information for only four key informants to contact and received a response from one of those informants after multiple contact attempts. After several weeks in data collection, a hospital administrator helped to expand the list of key informants and facilitated contact with unresponsive informants. Given the shortened period, the data collection team did not have adequate time to let the contacts "snowball" (that is, generate further sample based on recommendations from interviewees), a process that likely would have generated a broader base of perspectives.

- About half of the interviewees were specifically and exclusively focused on communities served by Baystate Noble.
- None of the interviewees identified themselves as a race other than White.
- No interviewees represented youth development coalitions.

- Few interviewees represented youth-supporting organizations outside the medical model.
- Few respondents spoke to the lived experience of racism and historical marginalization and the impacts on mental health, well-being, and access.

The limitations of this sample affect the robustness of the findings. They may also suggest an opportunity for Baystate Noble to build more extensive relationships with community and youth serving agencies in the area.

## *Findings*

---

### **1) How do youth and adults in diverse communities conceive of “mental health”? To whom do young people turn? Who do they trust for guidance?**

Interviewees described some specific experiences and challenges youth are facing around mental health, but they were also highly likely to point to systemic challenges and gaps in the system of mental health care that create those challenges. Rather than describe the challenges they see youth facing in their day-to-day lives, they tended to go directly to systemic challenges such as funding, infrastructure challenges, or state regulations. A common feeling of overwhelm, helplessness, and burnout in the face of these **systemic challenges** was clear throughout the interviews. More specificity around these systemic challenges and proposed solutions will be included in subsequent questions within this report.

Words and concepts used to describe the mental health experiences youth are having include:

- Anxiety, hypervigilance, stress, worry
- Depression
- Trauma
- Powerlessness to get out of situations where they are unhappy. For example, one provider described:

*“The ones that are sad aren’t really sad, but they have so little power in the conflict they are having. They say they want to kill themselves because they know they will get to the Emergency Department that way. We see some kids over and over who feel safe with us.... Sometimes they just hate the situation they are in and saying they are suicidal gets them out of that situation.”*

- Stigma—people seeing mental health issues as the fault of the person experiencing them because of bad decision-making, and so on.

Providers overwhelmingly felt that youth mental health and well-being has taken a step backwards in the last two years, and many existing mental health challenges have been amplified by the pandemic, including:

- Difficulty fostering and maintaining social connections and supports, which has led to feelings of isolation, grief, loss, and so on. This reinforces social anxiety.
- Difficulty focusing on school.
- Feeling behind in school and lacking the ability to catch up, which leads to anxiety.
- Conduct disorder: adults see more fights, violence, and challenging of boundaries than pre-pandemic.
- Difficulty enforcing boundaries with previously separate parts of young people's lives being integrated (school, home, extracurriculars, and so on.).
- Substance abuse.

Youth commonly use **social media as a centerpiece for conversations about mental health**—either echoing words and concepts used to describe mental health on social media or sharing experiences with social media to illustrate where their feelings are coming from. Words and concepts youth may use to describe their mental health include:

- Feeling lonely or isolated
- Feeling pressure to figure out things on their own, which may be accompanied by powerlessness
- Feeling unsure of where to turn for resources
- Feeling like they've fallen behind in school
- Feeling pressure to perform at a certain level
- Generalizing what is typical youth behavior, for example, "everyone vapes," "everyone uses cannabis," or "everyone gets in fights with their romantic partners."

### Who or what do youth turn to for support?

Respondents highlighted the various ways that **young people depend on peers** and some adults to maintain a sense of balance and connectedness. As one person commented, “Social connections are huge!” Social media is one significant way for youth to connect to supportive communities, though it can also have negative impacts on youth mental health, lead to social isolation, and decreased physical activity.

*“Technology is not good or bad. It’s neutral.  
It’s a tool and it’s about how you use it.”*

Others discussed the critical role that **adult caregivers and informal mentors play** in supporting youth. Trusted adults might include parents, teachers, coaches, and staff working in targeted programs. Respondents also noted, however, that many youth lack these trusting relationships.

*“I wish they were getting support. I don’t see it a lot. I think they go to friends or parents, though they can be hesitant to admit something to a parent. Teachers—they see them every day. A lot of them don’t know there are resources available to them to sit and talk and they just bottle it up inside. I don’t see support-seeking enough.”*

Some mentioned **specific programs** or noted the value of afterschool programs (such as Boys & Girls Club), sports, extracurricular activities (music, art, etc.) in terms of offering young people safe, structured spaces to explore their interests and the potential for building relationships with caring adults. Some youth get referred formally or informally to social support agencies that help them meet their needs. Other providers see the important role that schools, and churches play for some youth, specifically noting the importance of the church community for Russian and Ukrainian young people. Jobs and employment programs can also provide regular structures and relationships that support young people’s well-being.

*“It depends on the community and how good their services are... It’s hit or miss community by community. If you have some great members of a particular community that are really organized, you can have great services and outreach to young people. There is not a lot of state-level coordination. It’s community and organization based.”*

Of course, many respondents also mentioned the **range of mental health services that youth may turn to for support**. Some discussed the role that pediatricians and other medical providers can play in assessment and appropriate referrals. Others discussed the

importance of stable relationships with mental health providers. Youth and the adults who take care of them tend to turn to the Emergency Department at local hospitals when they don't feel they have other options. This is especially true for parents who no longer feel that they can handle their child's behavioral health issues, children who are in the custody of the Department of Children and Families, and children who have behavioral health crises at school. Once children interact with the Emergency Department, they may be referred to any number of supportive programs depending on the situation they are coming from and their specific needs.

### **What are the youth assets that help them maintain a sense of well-being or cope with mental health challenges?**

The desire to connect with peers is a key asset for many young people. The ability to find and engage in relationships with **like-minded youth**, youth going through similar experiences, either locally or through social media, was identified as critically important.

Respondents also noted that young people are astute, sensitive, and have significant **social-emotional intelligence**. They interpret personal, political, and social experiences with sophisticated perspectives and often language or lenses they learn via social media. They generate understandings that help them to manage the many crises they have faced in their lifetimes.

*"Youth are smart. This generation thinks outside the box... maybe because of what they have lived through for the past two and a half years."*

### **2) What are the current platforms for community support those hospitals can build on in collaboration with others? What are the community assets? What are the gaps or critical needs?**

#### **Community Assets:**

Interviewees identified numerous critical components of the formal support network for young people in the communities served by Baystate Noble. Some providers noted that they believe that **Massachusetts is a more supportive state than others** when it comes to addressing youth mental health, though the resources dedicated to addressing the problem were still seen as inadequate compared to the scale of the problem. Some identified special **local agencies** that support mental health and well-being through direct

mental health services or afterschool activities, such as the Boys & Girls Club, YMCA, and the Behavioral Health Network. Others described the range of **school and community-based activities** as critical parts of the system, including sports teams and other opportunities for physical activity and getting outside, like bike paths and parks. Still others mentioned **supportive school environments** in which some young people feel safe and connected.

We also heard about a **range of physical and mental health services** that are supporting young people in the communities served by Baystate Noble. One unique strength in this area is the **school-based health** center at Gateway Regional High School, which serves to meet basic primary care needs and can provide early identification and counseling for mental health needs. Others mentioned mental health clinics and acute care providers, including:

- The Behavioral Health Network’s 24-hour walk-in center for crisis services (in Springfield).
- Baystate Health’s partial hospitalization program.
- Community Based Home Intervention Services—in-home therapists, therapeutic mentors, and so on.
- Group homes that serve young people in DCF care or as a step down from a psychiatric unit; however, the quality and staff skills may not be adequate for the significant needs of these young people.

**Inpatient psychiatric units** that do exist or are being built in western Massachusetts are seen as an asset especially by hospital staff and direct-care providers. The transition to **telehealth** by mental health providers is seen as an asset by some, but not by all. Interviewees described pros and cons:

*“Telehealth is probably helping in some situations for people who couldn’t get there before, but some people really need the in-person visit.”*

*“Being able to offer telehealth has been amazing.... Opens up lots of possibilities for youth and families.... [It’s] Important for telehealth to remain an option even as things are shifting back to in-person.... [We] can pull people together on patient care teams who couldn’t make it because of travel time.”*

## Gaps and Barriers

While the communities served by Baystate Noble has some of the critical pieces needed to support youth, respondents noted a wide range of gaps in the system and critical barriers to accessing needed supports. These included organizational cultures and practices, socio-economic challenges to accessing care, and inadequate capacity and funding to meet the wide range and depth of issues with which youth are presenting.

One example of an **institutional and systems barrier** is the “stigma” that appears to be embedded within institutions in the system—for example, inpatient facilities deprioritizing the acceptance of patients with complex cases, or certain practitioners refusing to accept patients who are in medical treatment for drug addiction. Further, providers and other youth-serving institutions do not have the time they need to connect with one another and create a strong network of referrals and youth support.

Providers also feel there is a **lack of systemic support needed to maintain capacity, infrastructure, and quality**. Several described “provider burnout” and exhaustion as a major reason that providers are leaving the field, creating a shortage of providers. This can be especially damaging when youth are in the care of a string of providers and have to keep rebuilding relationships. In addition, there is a lack of private space for behavioral health consultations within hospitals, and especially within Emergency Departments (EDs). Another clear capacity issue involves the availability of crisis mental health service assessments. Behavioral Health Network is the state-contracted Emergency Services provider for the western region. Their contract states that they will arrive at the ED within one hour to evaluate youth who are experiencing a mental health crisis. Because of inadequate funding and a lack of providers, interviewees reported that their average response time is 11 hours to arrive at the hospital and to deliver the health assessment that is necessary for behavioral health patients to get discharged from the ED. If the patient is under 18 and has parents with them, they can leave the hospital and get the assessment elsewhere, so this issue disproportionately affects children who are abandoned at the ED or are in the custody of the Department of Children and Families.

Several interviewees described the **provider shortages and a general lack of 24-hour services** for youth in crisis to turn to outside the ED. One provider cited that she believes only 10% of youth who end up in the Emergency Department for mental health crises have a medical reason (physical injury, etc.) to be in the ED. Once youth end up in the ED for mental health crises—especially those who are abandoned by their caregivers at the hospital, those who are in the custody of the Department of Children and Families, and those with special needs—they can have extended stays in the ED because of the lack of

inpatient beds, group homes, and other resources that can support youth experiencing a mental health crisis. Providers consistently acknowledge that the ED is not an acceptable place for youth to spend long periods of time. The following story illustrates this issue and who is most deeply affected by it:

*“The example I like to give is I had a kid last year who threw crayons at his teacher. He was 5. He gets sent to the ED and ...treated like a criminal because of regulatory stuff we have to do. His parents are here... and I tell them he doesn’t need to be in the ED right now. They say school won’t take him back until he sees BHN [Behavioral Health Network]. I tell them...there are other ways to access this assessment besides waiting overnight in the ED. He leaves [after spending] 45 minutes in the ED and goes home.*

*Same day, I had an 8-year-old who was in DCF [Department of Children and Families] custody... Someone had called him black and that made him mad because he’s brown... he hid under a table and... his teacher was trying to make him come out, so he pulled on the cord of a computer and the computer hit the ground... He shows up and gets wanted by security... which is a requirement... so he thinks he’s getting arrested, starts crying, gets scared.*

*He’s just like the kid who threw the crayons... except that he’s in DCF custody... and they won’t take the risk of sending him home because they don’t trust that [the Pediatric ED Director] can be the one who says he’s okay. He spends all night in the ED waiting [19 hours] for BHN... and he’s in the hallway when a dead baby comes in... he sees staff crying, he hears mom yelling at God, gets exposed to all kinds of things that are truly unnecessary.*

*Truly, it’s the same situation, but one has parents who can take care of him and the other is in DCF.”*

There was wide agreement about the acute **shortage of inpatient facilities for youth**. There were many numbers cited for how long youth might have to board in the Emergency Department due to the lack of inpatient facilities, from 3 to 4 weeks and up to 6 months in one example. While providers agreed on the need for expanded inpatient services, partnerships between hospital systems and for-profit healthcare organizations, such as the new Kindred inpatient facility being built in partnership with Baystate Health, are not trusted. Providers question whether care that has a profit motive is really in the best interest of the patient.

Many of the gaps identified related to the **limitations of funding streams and salary structures** for mental health workers. Certain providers, such as school-based health

center providers and community health workers, have their positions funded by grants with specific deliverables, limiting their ability to respond to emergent needs. Some providers are transitioning away from working with insurance because it is too much of a hassle for them or are not accepting MassHealth because it offers lower reimbursement rates. Several interviewees noted that there is inadequate public or private funding available to pay providers what they are worth, which contributes to providers leaving the field or not entering the field in the first place.

*“The most important jobs in the Commonwealth with regard to youth are direct services work. These are \$16—17/hour jobs that no one wants with inconvenient hours on evenings and weekends. Everyone acknowledges the problems, and no one wants to fund the solutions.”*

*“The people who are qualified to do this difficult work with children and families have master’s degrees and licenses. I could never in good conscience tell someone to take that path because they will end up with \$120,000 in loans and no jobs that will pay off those loans. I, myself, am a hospital administrator and I just paid off my loans last year.”*

In addition to the significant gaps in the service infrastructure, interviewees described the barriers that families face in accessing existing services. **Transportation** was one of the chief challenges identified, particularly in the more rural areas of this region. There is a lack of public transportation in the Hilltowns. Rural residents have to drive long distances to receive care. There are significant barriers and costs associated with youth getting drivers’ licenses. It was also noted that the lack of late school buses means that many youth cannot take advantage of afterschool programs in the Westfield public schools.

As noted above, **telehealth** has afforded some easier access to health services. Few, however, see it as a panacea. The pandemic transition to telehealth is seen by some as a barrier, as it adds to the many other interactions moving to the virtual sphere. Some interviewees felt that there is still a shortage of in-person opportunities for youth to connect with supportive adults and one another, and that telehealth does not address this gap.

Finally, many identified **the lack of support for parents**. Some of the issues mentioned include:

- Parents who are struggling with their own mental health or the difficulties of caring for children often face stigma and/or a lack of resources to get help with parenting issues before the issues become acute behavioral health crises.
- Young adults with children struggle to afford the childcare needed to free up time for dealing with their own mental health or that of their children.
- Parents and caregivers, as well as youth, may not have enough time or the right time during the right hours to get the care youth need.
- The process of finding a provider that accepts a particular insurance is complex and hard to navigate. Some parents are successful at it, while others lack the tools and understanding needed to navigate the process.

### **3) What effective collaborative models exist in western Massachusetts or what should be further developed?**

As in other Baystate regions, the Massachusetts Department of Public Health's **Children's Behavioral Health Initiative (CBHI)** was highlighted as a strong base for collaboration and coordination, but systemic limitations in taking advantage of CBHI grants were noted. As described on the CBHI website, the CBHI:

- "Pays for an enhanced continuum of home- and community-based behavioral health services.
- Requires that primary care providers screen for behavioral health conditions at well-child and other office visits.
- Standardizes behavioral health assessment by requiring clinicians to use the Child and Adolescent Needs and Strengths (CANS) assessment tool to document comprehensive initial assessments, and to update the CANS every 90 days to ensure that treatment plans address strengths and needs as they evolve."

Providers offered a nuanced sense of the limitations of CBHI, again relating to funding. For example, one provider explained:

*“CBHI services are amazing, but to get the grant to run those programs, you have to be a large institution, and then you have to shave a lot off of the top of the insurance reimbursement, which means salaries for clinicians stay low, so there is large turnover and no consistency.”*

Interviewees noted several other **clinical and organizational collaborations** that foster essential system and capacity building, as well as coordination of care:

- Collaboration between the Hilltown Community Health Center and the Gateway Regional School District to open the school-based health center at Gateway Regional High School.
- The regional team of the **Massachusetts Child Psychiatry Access Program**. As described on their website:  
*“MCPAP provides quick access to psychiatric consultation and facilitates referrals for accessing ongoing behavioral health care. We encourage and support PCPs integrating behavioral health resources into their practices and work with behavioral health providers as well as primary care providers. MCPAP is available for all children and families, through their primary care providers, regardless of insurance. MCPAP is free to all PCPs.”*
- Collaborations between hospital psychiatric units, the Department of Children and Families, and the Department of Mental Health.
- Collaborations between departments within hospital systems—particularly the way these collaborations are enabled by technology that increases the timeliness of communications.
- The Center for Human Development’s on-call crisis team that group homes can call for intervention during a behavioral health crisis.
- Some aspects of the partnership between Baystate Health and the Kindred inpatient facility under construction were seen as effective, particularly in that it will address the desperate need for increased inpatient capacity.

This study clearly identifies the need for **coordination and collaboration between clinical and community-based youth serving organizations**. Interviewees identified some good examples of this in the communities served by Baystate Noble, including:

- Community coalitions where youth-serving people and organizations can come together and educate one another on the resources available, such as those centered on substance use (WMS4), and those facilitated by the Behavioral Health Network and Gándara.
- Partnerships between afterschool programs and other businesses and organizations offering activities such as yoga, mindfulness, ice skating, museum visits, and so on.
- Hospitals' Patient and Family Advisory Councils educating clinical staff on community needs.

As respondents described collaborative models to build upon, they also identified **collaborations that should be developed or further developed**. These suggestions are aimed at improving access to care and supportive services, enhanced coordination, and communication, and integrating community voice to improve the quality and appropriateness of service design.

Some interviewees identified the need for **enhanced systems of communication and coordination between mental health providers**. Suggestions included:

- Pediatric Emergency Department staff need to be able to assess youth mental health, discharge youth, and refer them to care more expediently (rather than going through the state's Emergency Services Provider, BHN).
- A databank where providers could learn about and connect with one another to improve word-of-mouth referrals, strengthen connections, and increase understanding of the resources available.
- Collaborations between schools or group homes and places where youth who are compromising safety in these settings can go for respite other than the Emergency Department.
- Coordination to increase capacity for specialized services, such as integration of environments tailored to the needs of autistic youth.
  - "A lot of autistic kids get stuck in the hospital because there is nowhere for them to go."
- Easier ways to share documentation between providers.

In addition, providers note the need for improving communication and coordination between clinical staff and families or other caregivers. They specifically suggested:

- A better system for secure dialoguing between care teams and families.
- A centralized call-in number for referrals to ease access to care for families.

One critical area for enhanced collaboration and service delivery models is **bringing together mental health direct-service providers and those working to provide youth programming** and to address the social determinants of health. For example, one respondent described hospitals “pushing in” to community programs to make youth and program staff aware of the mental health resources available to them. Youth and caregivers who are comfortable in community programs are more likely to access mental health services when there is an easy handoff or when the services are co-located in the community service organization.

Some of the areas identified for **enhanced services and coordination directly target community supports for parents, families, and youth and promote well-being.**

Suggestions included:

- Accessible drop-in spaces for children and families to relax and socialize.
- Drop-off daycares at community centers and activity centers, such as the YMCA, for young parents.
- Funding for youth to engage in the activities that help them “be a kid,” for example, athletics, going to Red Sox games, and taking up hobbies.
- Funding for teenagers to get drivers licenses.

#### **4) How can youth be involved in building more effective support systems?**

Interviewees cited the network of youth serving organizations in the greater Westfield area as being particularly strong—especially the YMCA and Boys & Girls Club. One interviewee stated:

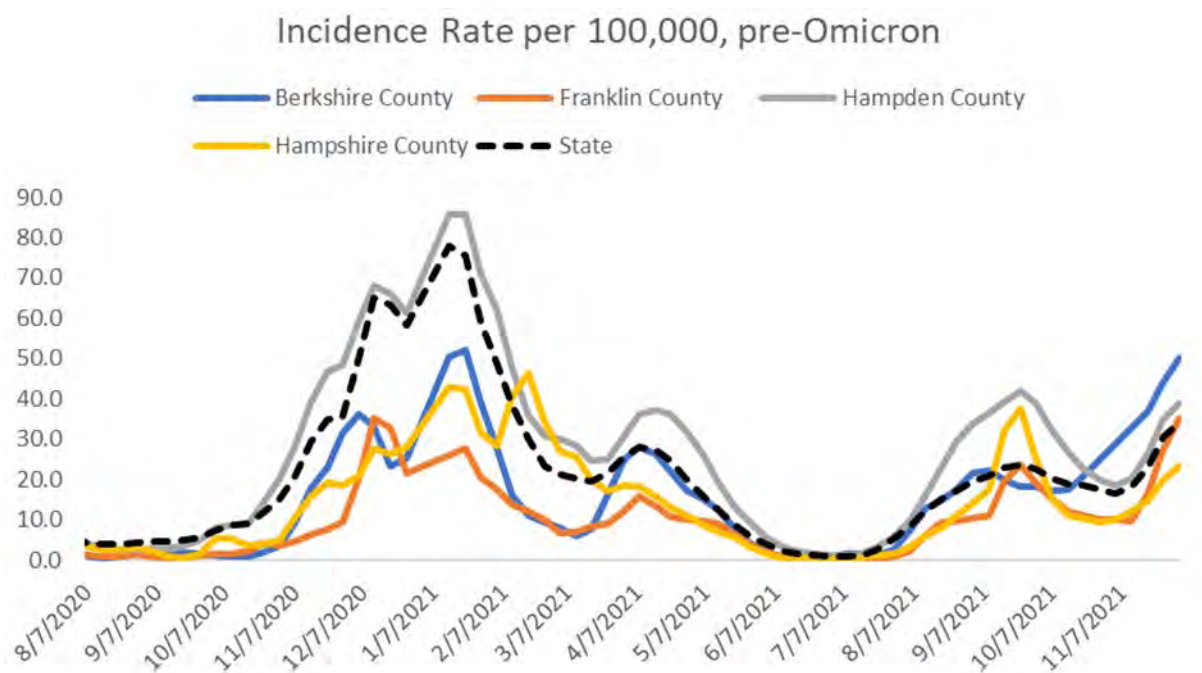
*“The Westfield Boys & Girls Club is a great example of an almost zealot level organization. They are super engaged... and committed to reaching [underrepresented] students. They seem to understand because they have a near religious fervor, but they’re not a religion.... It almost seems like a quasi-state thing, but it’s not. It’s all volunteers.”*

A couple of interviewees mentioned that they could imagine success if hospitals “pushed in” more to youth-serving organizations, such as the Boys & Girls Club or group homes, to let youth and youth service providers know what mental health services are available to them. Many interviewees shared the sentiment of being strongly invested in preventing youth from showing up at the Emergency Department in the first place. By increasing involvement with youth-serving organizations, hospitals could not only get the word out about resources but could also take the opportunity to hear from youth about what would prevent them from ending up in mental health crises. For example, a few interviewees mentioned the need for places for youth to relax, get respite, and just “be a kid.” If hospitals could help foster these spaces both preventatively and for youth who are on the verge of crisis and just need a space to “cool off,” the perception was that this could reduce the number of youths in crisis showing up to and getting stuck in the Emergency Department. By building these relationships with youth-serving staff, young people, and caregivers, clinical staff and administrators could participate in spaces in which young people feel safe and could interact with youth more casually to learn from them about how they experience mental health systems of support and would foster more engaging and responsive interactions.

## Appendix 5. Supplemental Data

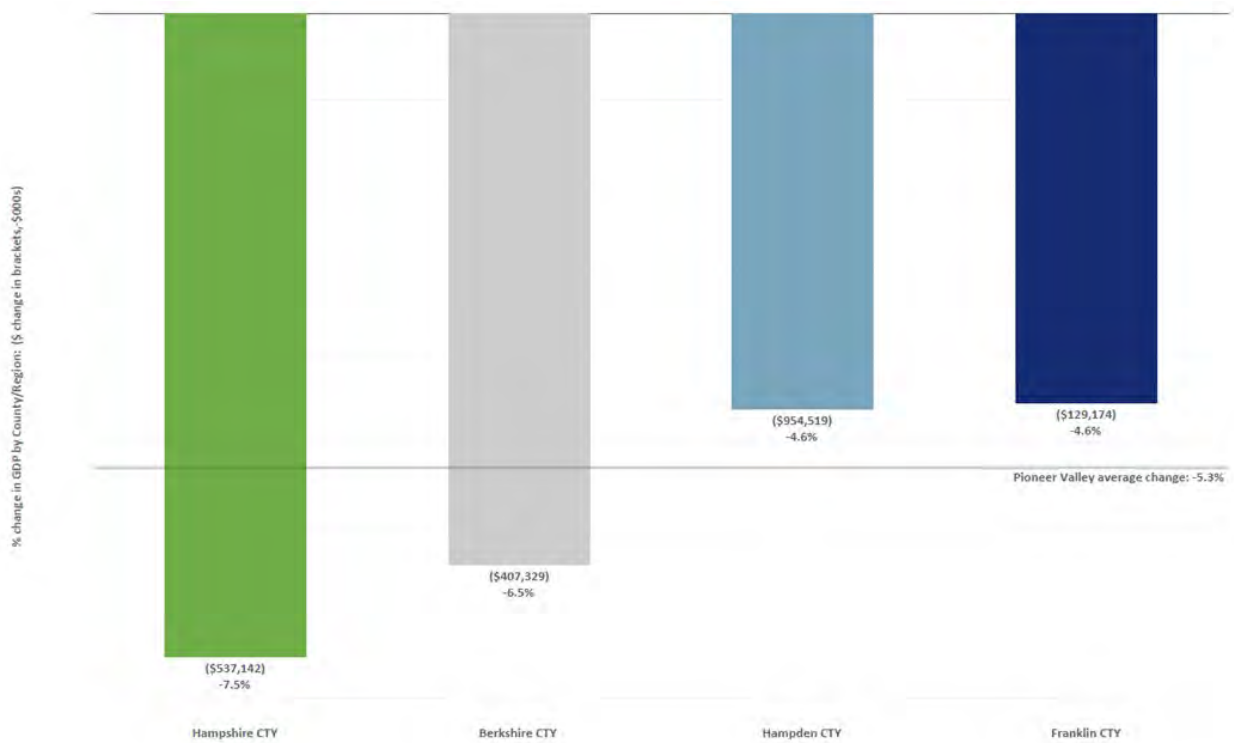
### 5a. COVID-19 Supplemental Data

**FIGURE 32: COVID-19 Incidence Rate in Western Massachusetts by County, pre-Omicron Variant**

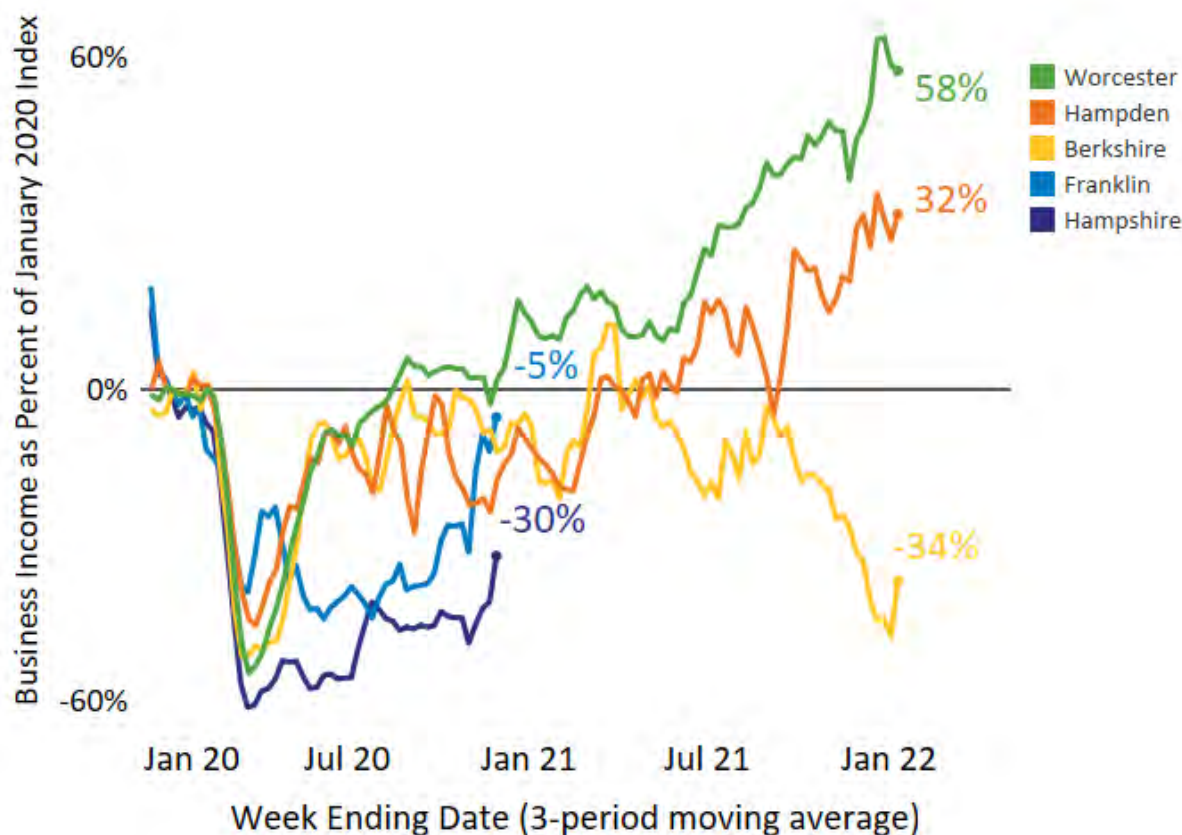


**Source:** Massachusetts Department of Public Health COVID-19 Dashboard

**FIGURE 33: Effects of COVID-19 on Pioneer Valley Gross Domestic Product (GDP), 2020**



**Source:** U.S. Bureau of Economic Analysis, <https://www.bea.gov/data/gdp/gdp-county-metro-and-other-areas>

**FIGURE 34: Small Business Revenues, January 2020 - February 2022**

*Source:* Womply data, from Opportunity Insights, <https://www.tracktherecovery.org/>

### ***5b. COVID-19 Community Impact Survey (CCIS) Data***

In response to the ongoing COVID-19 pandemic, the Massachusetts Department of Public Health conducted the COVID-19 Community Impact Survey to better understand the needs of populations that have been disproportionately impacted by the pandemic, including its social and economic impacts. The survey was conducted in the fall of 2020 and reached over 33,000 adults and 3,000 youth (under 25). There was an intentional effort to reach key populations such as people of color, LGBTQIA+ individuals, people with disabilities, and older adults.

Compared to past surveillance surveys, this survey reached:

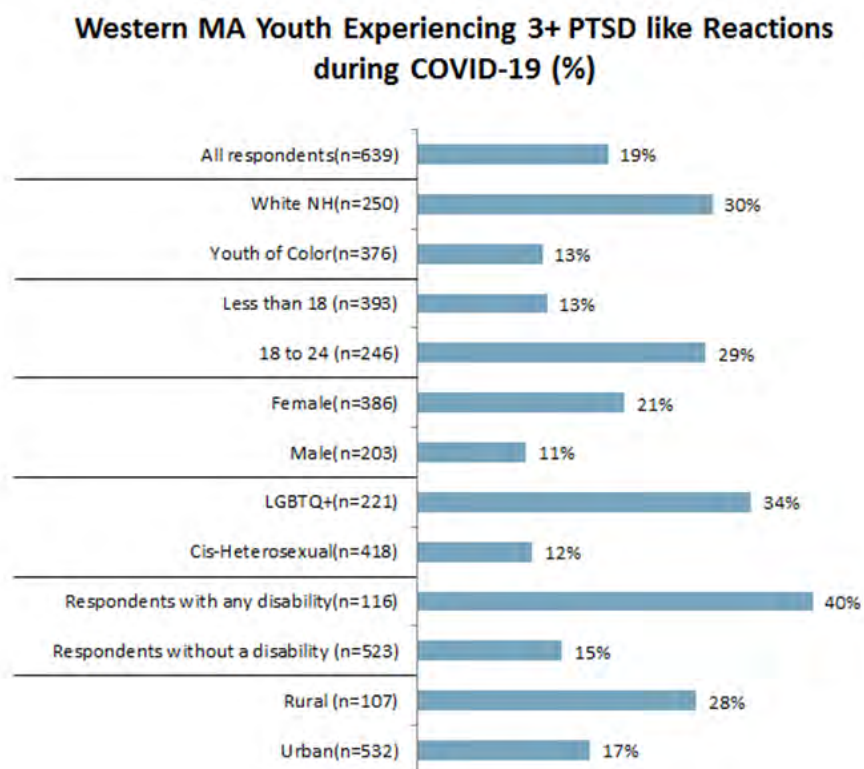
- 10 times as many Alaska Native/Native American individuals
- 10 times as many LGBTQIA+ respondents

- 5 times as many residents who speak languages other than English
- 5 times as many Latino/a/e residents
- 5 times as many Asian residents
- Over twice as many respondents in other populations including the deaf/hard of hearing and Black community

Throughout the report, we highlight relevant findings for Hampden County and western Massachusetts in general to better understand the impacts of the pandemic. All percentages reported are unweighted and statistical significance testing, a chi-square (X2) test of independence for comparisons was used where applicable. Caution should be used when interpreting the results of the COVID-19 Community Impact Survey. It is important to note that these findings are only representative of those who participated in the survey and may not be representative of the experiences of everyone in Hampden County.

### 5c. CCIS Data on Youth Mental Health

**FIGURE 35: Western Massachusetts Youth Experiencing 3 or more PTSD Like Reactions during COVID-19**



*Source: MDPH COVID-19 Community Impact Survey, 2020*

### 5d. Baystate Noble Hospital Patient Data

**TABLE 10: Baystate Noble Admissions**

Diagnosis Upon Arrival	Year(s)	Count	Median Age	Black Median Age	Latine Median Age	Other Median Age	White Median Age	% Under 18	% 65 and over	% Female	% People of Color
<b>Asthma</b>	2019 - 2021	840	60	46	49	53	63	1%	42%	70%	21%
<b>Congestive Heart Failure</b>	2019 - 2021	1,768	79	60	71	82	79	N/A	83%	52%	7%
<b>COPD</b>	2019 - 2021	1,945	72	67	70	79	72	N/A	72%	53%	5%
<b>Diabetes</b>	2019 - 2021	2,743	71	61	62	62	72	0%	65%	49%	13%
<b>Substance Use</b>	2019	454	54	50	45	61	56	0%	27%	39%	15%
	2020	671	54	53	42	52	55	0%	27%	41%	10%
	2021	907	54	40	41	50	56	1%	25%	42%	14%
<b>SUBSTANCE USE</b>	2019 - 2021	2,032	54	46	42	52	56	1%	26%	41%	13%
<b>Behavioral Health*</b>	2019	341	42	51	39	38	44	4%	14%	48%	16%
	2020	362	45	44	41	64	46	2%	20%	43%	13%
	2021	557	49	33	39	44	51	1%	19%	46%	17%
<b>BEHAVIORAL HEALTH*</b>	2019 - 2021	1,260	46	40	39	48	48	2%	18%	45%	15%

*\*Includes only visits where behavioral health is primary diagnosis*

**Source:** Division of Healthcare Quality, Baystate Health

**TABLE 11: Visits to Baystate Noble Emergency Department**

Diagnosis Upon Arrival	Year(s)	Count	Median Age	Black Median Age	Latine Median Age	Other Median Age	White Median Age	% Under 18	% 65 and over	% Female	% People of Color
Asthma	2019 - 2021	2,291	43	34	36	39	46	8%	15%	67%	32%
Congestive Heart Failure	2019 - 2021	690	77	56	66	50	78	N/A	75%	54%	8%
COPD	2019 - 2021	1,499	67	64	65	77	67	N/A	61%	60%	6%
Diabetes	2019 - 2021	3,399	62	56	55	50	64	0%	45%	50%	19%
Substance Use	2019	852	40	34	39	34	41	3%	8%	40%	15%
	2020	1,232	39	35	33	36	39	3%	8%	39%	17%
	2021	1,091	38	31	30	29	40	3%	8%	39%	15%
<b>SUBSTANCE USE</b>	2019 - 2021	3,175	39	34	34	34	40	3%	8%	39%	16%
Behavioral Health*	2019	1,248	39	30	35	41	41	7%	14%	47%	17%
	2020	1,311	39	33	36	41	40	6%	14%	48%	16%
	2021	1,217	36	25	29	24	38	9%	11%	46%	16%
<b>BEHAVIORAL HEALTH*</b>	2019 - 2021	3,776	38	29	34	33	39	7%	13%	47%	16%

\*Includes only visits where behavioral health is primary diagnosis

Source: Division of Healthcare Quality, Baystate Health

# 11. References

# 11. References

- <sup>1</sup> Broadstreet. Decennial Census. 2010.
- <sup>2</sup> U.S. Census Bureau. American Community Survey (ACS) 5-Year Estimates. 2015-2019.
- <sup>3</sup> U.S. Census Bureau. DP05. ACS 5-Year Estimates Detailed Tables. 2020.
- <sup>4</sup> U.S. Census Bureau. DP02. ACS 5-Year Estimates. 2020.
- <sup>5</sup> Broadstreet. Median Family Income for the 11-ZCTA Area. ACS 5-year Estimates. 2015-2019.
- <sup>6</sup> Broadstreet. Percent of Population Living Below 100% Federal Poverty Level in Our 11-ZCTA Area. ACS 5-Year Estimates. 2015-2019.
- <sup>7</sup> U.S. Census Bureau, ACS 5-Year Estimates. 2015-2019. Also 2020 Census Redistricting Data.
- <sup>8</sup> Sanusi M. Root Causes: Going Past Social Determinants. Health Resources in Action. 2021. <https://hria.org/2021/04/20/rootcauses/>
- <sup>9</sup> Braveman, P, Arkin, E, Orleans, T, Proctor D, & Plough, A. (2017). What is Health Equity? Robert Wood Johnson Foundation. Available at <https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-.html>
- <sup>10</sup> Public Health Institute of Western Massachusetts. 2019 Community Health Needs Assessment, Baystate Noble Hospital. <https://baystatehealth.webdamdb.com/directdownload.php?ti=78698064&tok=rCBJxenOOtojjK9NPkyWaQR>
- <sup>11</sup> Caruso, I, Valdez, ES, Lovell, CC, Chan, J, Beatriz, E, & Gubrium, A. The Need for Community-Responsive and Flexible Sex Ed for Historically Marginalized Youth. 2022. Sexuality Research and Social Policy, 1-9.
- <sup>12</sup> Associated Press. Holyoke Soldiers' Home: Case of 76 veterans who died of COVID-19 lands in court. Boston.com. Published August 25, 2021. <https://www.boston.com/news/local-news/2021/08/25/holyoke-soldiers-home-court-case-76-veteran-coronavirus-deaths/>
- <sup>13</sup> Massachusetts Department of Public Health (MDPH). Archive of Chapter 93 COVID-19 Data. <https://www.mass.gov/info-details/archive-of-chapter-93-covid-19-data#january-2022->
- <sup>14</sup> Svajlenka, NP. (2020). Protecting Undocumented Workers on the Pandemic's Front Lines. Center for American Progress. <https://www.americanprogress.org/article/protecting-undocumented-workers-pandemics-front-lines-2/>
- <sup>15</sup> Khazanchi, R, Evans, CT, Marcelin, JR. Racism, Not Race, Drives Inequity Across the COVID-19 Continuum. JAMA Network Open. 2020.
- <sup>16</sup> Centers for Disease Control and Prevention (CDC). Covid-19 Racial and Ethnic Disparities. Published February 11, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/racial-ethnic-disparities/index.html>
- <sup>17</sup> CDC. Age-adjusted Laboratory-Confirmed COVID-19 Associated Hospitalization Rates by Race/Ethnicity - COVID-19-NET, March 1, 2020-February 5, 2022. [https://www.cdc.gov/coronavirus/2019-ncov/images/community/health-equity/race\\_ethnicity\\_page\\_updates\\_2022-02-05.jpg](https://www.cdc.gov/coronavirus/2019-ncov/images/community/health-equity/race_ethnicity_page_updates_2022-02-05.jpg)

- 
- <sup>18</sup> COVID-19 leading cause of death ranking. Peterson-KFF Health System Tracker. Published March 24, 2022. <https://www.healthsystemtracker.org/brief/covid-19-leading-cause-of-death-ranking/>
- <sup>19</sup> CDC. Products - Data Briefs - Number 427. December 2021. Published December 21, 2021. <https://www.cdc.gov/nchs/products/databriefs/db427.htm>
- <sup>20</sup> MDPH COVID-19 dashboard.
- <sup>21</sup> MDPH COVID-19 Interactive Data Dashboard. COVID-19 Response Reporting. Published June 28, 2022. <https://www.mass.gov/info-details/covid-19-response-reporting>
- <sup>22</sup> MDPH COVID-19 Interactive Data Dashboard Indicators on Long-term Care Facilities. COVID-19 Response Reporting. Published March 28, 2022. <https://www.mass.gov/info-details/covid-19-response-reporting>
- <sup>23</sup> COVID prison data. The Marshall Project. Published July 2, 2021. [https://github.com/themarshallproject/COVID\\_prison\\_data/blob/master/data/covid\\_prison\\_rates.csv](https://github.com/themarshallproject/COVID_prison_data/blob/master/data/covid_prison_rates.csv)
- <sup>24</sup> Widra E. Since you asked: What information is available about COVID-19 and vaccinations in prison now? Prison Policy Initiative. Published December 16, 2021. [https://www.prisonpolicy.org/blog/2021/12/16/covid\\_data/](https://www.prisonpolicy.org/blog/2021/12/16/covid_data/)
- <sup>25</sup> MDPH. Weekly COVID-19 Municipality Vaccination Report. 27 July, 2022. <https://www.mass.gov/info-details/massachusetts-covid-19-vaccination-data-and-updates>
- <sup>26</sup> MDPH. Weekly COVID-19 Municipality Vaccination Report. 27 July, 2022. <https://www.mass.gov/info-details/massachusetts-covid-19-vaccination-data-and-updates>
- <sup>27</sup> Marcelin JR, Swartz TH, Bernice F, et al. Addressing and Inspiring Vaccine Confidence in Black, Indigenous, and People of Color During the Coronavirus Disease 2019 Pandemic. Open Forum Infectious Diseases. 2021;8(9): ofab417. doi:10.1093/ofid/ofab417
- <sup>28</sup> CDC. Unintended Consequences of COVID-19 Mitigation Strategies. Published December 10, 2020. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/racial-ethnic-disparities/disparities-impact.html>
- <sup>29</sup> U.S. Bureau of Economic Analysis (BEA). Gross Domestic Product by County. 2020. <https://www.bea.gov/news/2021/gross-domestic-product-county-2020>
- <sup>30</sup> Job Losses Persist for Low-Wage Workers. Opportunity Insights Economic Tracker. Published April 15, 2022. <https://tracktherecovery.org/>
- <sup>31</sup> U.S. Bureau of Labor Statistics. Local Area Unemployment Statistics. For a table displaying a map and table with unemployment rates by town, see this PVPC dashboard: [https://public.tableau.com/app/profile/pvpc/viz/CHNAUnemploymentData\\_Jan20toDec21/24MonthU-Rates?publish=yes](https://public.tableau.com/app/profile/pvpc/viz/CHNAUnemploymentData_Jan20toDec21/24MonthU-Rates?publish=yes)
- <sup>32</sup> Lim K, Zabek M. Women's Labor Force Exits during COVID-19: Differences by Motherhood, Race, and Ethnicity. Finance and Economics Discussion Series. 2021. 2021(066):1-39. doi:10.17016/feds.2021.067
- <sup>33</sup> U.S. Census Bureau. Tracking Job Losses for Mothers of School-Age Children During a Health Crisis. Published March 11, 2021. <https://www.census.gov/library/stories/2021/03/moms-work-and-the-pandemic.html>
- <sup>34</sup> MDPH, Overview of local public health in Massachusetts. Accessed February 1, 2022. <https://www.mass.gov/service-details/overview-of-local-public-health-in-massachusetts>

- 
- <sup>35</sup> Bull-Otterson L, Baca S, Saydah S, et al. Post-COVID Conditions Among Adult COVID-19 Survivors Aged 18–64 and ≥65 Years — United States, March 2020–November 2021. *MMWR Morb Mortal Wkly Rep* 2022; 71:713–717. DOI: <http://dx.doi.org/10.15585/mmwr.mm7121e1>.
- <sup>36</sup> CDC. Long COVID or Post-COVID Conditions. September 1, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/index.html>
- <sup>37</sup> U.S. Department of Health and Human Services. Guidance on “Long COVID” as a Disability Under the ADA, Section 504, and Section 1557. Published July 26, 2021. [https://www.ada.gov/long\\_covid\\_joint\\_guidance.pdf](https://www.ada.gov/long_covid_joint_guidance.pdf)
- <sup>38</sup> American Medical Association. AMA Announces New CPT Codes as COVID-19 Advancements Expand. Published September 8, 2020. <https://www.ama-assn.org/press-center/press-releases/ama-announces-new-cpt-codes-covid-19-advancements-expand>
- <sup>39</sup> U.S. Department of Labor. Office of Disability Employment Policy. <http://www.dol.gov/odep/>
- <sup>40</sup> Altemus M, Sarvaiya N, Neill Epperson C. Sex differences in anxiety and depression clinical perspectives. *Front Neuroendocrinol*. 2014;35(3):320–330. doi:10.1016/j.yfrne.2014.05.004
- <sup>41</sup> Haidt J. Facebook’s Dangerous Experiment on Teen Girls. *The Atlantic*. <https://www.theatlantic.com/ideas/archive/2021/11/facebooks-dangerous-experiment-teen-girls/620767/>. Published November 21, 2021.
- <sup>42</sup> Rideout V. Digital Health Practices, Social Media Use, and Mental Well-Being Among Teens and Young Adults in the U.S. Providence St. Joseph Health Digital Commons. <https://digitalcommons.psjhealth.org/publications/1093>
- <sup>43</sup> Public Health Institute of Western Massachusetts. 2019 Community Health Needs Assessment, Baystate Noble Hospital.
- <sup>44</sup> Gateway Regional School District. 2021 Prevention Needs Assessment Survey (PNAS) Frequencies Report. 2021.
- <sup>45</sup> Bach Harrison LLC, prepared for West Springfield CARE Coalition. 2021 Massachusetts Prevention Needs Assessment Survey. Survey Results for West Springfield, No 6th Grade.
- <sup>46</sup> MDPH Children’s Behavioral Health Initiative (CBHI) website (<https://www.mass.gov/service-details/learn-about-cbhi>)
- <sup>47</sup> World Health Organization: WHO. Mental health: strengthening our response. <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>. Published March 30, 2018.
- <sup>48</sup> Hoffman, K, Trawalter, S, Axt, J and Oliver, MN. Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proc Natl Acad Sci U.S.A.* 2016 Apr 19; 113(16): 4296–4301.
- <sup>49</sup> National Institute on Drug Abuse. Part 1: The Connection Between Substance Use Disorders and Mental Illness. National Institute on Drug Abuse. Published April 2020. <https://nida.nih.gov/publications/research-reports/common-comorbidities-substance-use-disorders/part-1-connection-between-substance-use-disorders-mental-illness>
- <sup>50</sup> Substance Use and Mental Health Services Administration (SAMHSA). Risk and Protective Factors. 2019.
- <sup>51</sup> Cestone, L. Does Poverty Cause Addiction? Comparing Experiences with Alcoholism and Substance Abuse by Social Class, Race and Ethnicity. *SUNY Oneonta Academic Research (SOAR): A Journal of Undergraduate Social Science*, 3 (2019).

- 
- <sup>52</sup> CDC. *Chapter 4 - Factors That Influence Tobacco Use Among Four Racial/Ethnic Minority Groups*. [https://www.cdc.gov/tobacco/data\\_statistics/sgr/1998/complete\\_report/pdfs/chap4.pdf](https://www.cdc.gov/tobacco/data_statistics/sgr/1998/complete_report/pdfs/chap4.pdf)
- <sup>53</sup> McKee P, Jones-Webb R, Hannan P, Pham L. Malt Liquor Marketing in Inner Cities: The Role of Neighborhood Racial Composition. *Journal of Ethnicity in Substance Abuse*. 2011;10(1):24-38.
- <sup>54</sup> Jernigan BD, Samuels A. Alcohol companies target African American youth. *Baltimore Sun*. Published October 22, 2012.
- <sup>55</sup> Substance Abuse and Mental Health Services Administration. The Opioid Crisis and the Black/African American Population: An Urgent Issue. Publication No. PEP20-05-02-001. 2020.
- <sup>56</sup> Palamar JJ, Davies S, Ompad DC, Cleland CM, Weitzman M. Powder cocaine and crack use in the United States: an examination of risk for arrest and socioeconomic disparities in use. *Drug Alcohol Depend*. 2015; 149:108-116.
- <sup>57</sup> Equal Justice Initiative. Racial Double Standard in Drug Laws Persists Today. December 9, 2019. <https://eji.org/news/racial-double-standard-in-drug-laws-persists-today/>
- <sup>58</sup> Herring, S. C., Christidis, N., Hoell, A., Hoerling, M. P., and Stott, P. A. (2021). Explaining Extreme Events of 2019 from a Climate Perspective. *Bulletin of the American Meteorological Society* 102, 1, S1-S115.
- <sup>59</sup> Fowers, A & Wan, A. Depression and anxiety spiked among black Americans after George Floyd's death. Washington Post. June 12, 2020. <https://www.washingtonpost.com/health/2020/06/12/mental-health-george-floyd-census/>
- <sup>60</sup> The Massachusetts Office for Refugees and Immigrants. *Annual Report*. 2020. <https://www.mass.gov/doc/2020-ori-annual-report/download>
- <sup>61</sup> CDC. *Guidance for Mental Health Screening during the Domestic Medical Examination for Newly Arrived Refugees*. (2022). <https://www.cdc.gov/immigrantrefugeehealth/guidelines/domestic/mental-health-screening-guidelines.html>
- <sup>62</sup> CDC PLACES map. 2019. <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65>
- <sup>63</sup> U.S. Department of Housing and Urban Development (HUD). 2021 Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations. 2021. [https://files.hudexchange.info/reports/published/CoC\\_PopSub\\_State\\_MA\\_2021.pdf](https://files.hudexchange.info/reports/published/CoC_PopSub_State_MA_2021.pdf)
- <sup>64</sup> CDC PLACES. Same rates as 2019 CHNA, based on County Health Rankings data.
- <sup>65</sup> Case A, Deaton A. *Deaths of Despair and the Future of Capitalism*. Princeton University Press. 2021.
- <sup>66</sup> MDPH. Emergency Department Rates for Substance Use, Baystate Noble Service Area, Age-Adjusted per 100,000. Hospital Admission Rates for Substance Use, Baystate Noble Service Area, Age-Adjusted per 100,000. 2019.
- <sup>67</sup> Broadstreet. Percentage of driving deaths with alcohol involvement in 3-county area, based on County Health rankings. 2020.
- <sup>68</sup> Pioneer Valley Planning Commission. Young Adult Empowerment Collaborative Hampden County Opioid Profile, September 2021.
- <sup>69</sup> MDPH. Emergency Department Rates for Opioids, Baystate Noble Service Area, Age-Adjusted per 100,000. 2019.
- <sup>70</sup> CDC. COVID-19 in Newly Resettled Refugee Populations. 2022. <https://www.cdc.gov/immigrantrefugeehealth/resources/refugee-populations.html>

- 
- <sup>71</sup> Stillman, J. These Are the Top 5 Reasons People Are Quitting During the Great Resignation, According to a Massive New Analysis (Hint: None of Them Is Pay). *Inc.* Published January 18, 2022. <https://www.inc.com/jessica-stillman/great-resignation-mit-revelio-research.html>
- <sup>72</sup> Massachusetts Health Policy Commission. *The Doctor Will (Virtually) See You Now: Telehealth Visits On The Rise In Massachusetts*. 2020.
- <sup>73</sup> Massachusetts Medical Society. Massachusetts Medical Society: Telehealth and Virtual Care. Accessed February 1, 2022. <https://www.massmed.org/Practice-Support/Telehealth-and-Virtual-Care/Telehealth-and-Virtual-Care/>
- <sup>74</sup> CMS. Medicare Telemedicine Snapshot. Accessed June 2022. Raw data were used to calculate percentages by race/ethnicity, sex, urban/rural. <https://www.cms.gov/files/zip/medicare-telemedicine-snapshot-data-file.zip>
- <sup>75</sup> Akoury, A. Massachusetts Health Centers Surpass One Million Telehealth Visits. *Business Wire*. Published August 24, 2021. <https://www.businesswire.com/news/home/20210824005509/en/Massachusetts-Health-Centers-Surpass-One-Million-Telehealth-Visits>.
- <sup>76</sup> Akoury, A. Massachusetts Health Centers Surpass One Million Telehealth Visits. *Business Wire*. Published August 24, 2021. <https://www.businesswire.com/news/home/20210824005509/en/Massachusetts-Health-Centers-Surpass-One-Million-Telehealth-Visits>
- <sup>77</sup> COVID-19 Healthcare Coalition. COVID-19 Telehealth Impact Study. 2020-2021. <https://c19hcc.org/telehealth/impact-home/>
- <sup>78</sup> CMS. *CMS Physician Payment Rule Promotes Greater Access To Telehealth Services, Diabetes Prevention Programs*.; 2021
- <sup>79</sup> Massachusetts Medical Society. Massachusetts Medical Society: Telehealth and Virtual Care. <https://www.massmed.org/Practice-Support/Telehealth-and-Virtual-Care/Telehealth-and-Virtual-Care/>
- <sup>80</sup> Alliance for Digital Equity. (2021). The Digital Equity Divide and Challenges to Digital Equity. <https://drive.google.com/file/d/1AWVeMCV6bw6E8MC7yRFYtvDRp9lpj1R/view>
- <sup>81</sup> Bishop TF, Press MJ, Keyhani S, Pincus HA. Acceptance of insurance by psychiatrists and the implications for access to mental health care. *JAMA psychiatry*. 2014;71(2). doi:10.1001/jamapsychiatry.2013.286
- <sup>82</sup> U.S. Census Bureau. ACS 5-Year Estimates. 2015-2019.
- <sup>83</sup> CDC PLACES. <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65>
- <sup>84</sup> U.S. Census Bureau. ACS 5-Year Estimates. 2015-2019.
- <sup>85</sup> Parker RM, Ratzan SC, Lurie N. Health literacy: A policy challenge for advancing high-quality health care. *Health Affairs*. 22(4): 147. 2003.
- <sup>86</sup> U.S. Census Bureau. ACS 5-Year Estimates. 2015-2019.
- <sup>87</sup> U.S. Census Bureau. ACS 5-Year Estimates. 2015-2019.
- <sup>88</sup> <https://www.mass.gov/news/baker-polito-administration-announces-updated-guidance-to-preserve-hospital-capacity-and-healthcare-workforce>
- <sup>89</sup> Springfield-Hampden County Continuum of Care. *Point-in-Time Count and Housing Inventory 2019*. 2019. <https://springfieldhampdencoc.files.wordpress.com/2019/06/pit-report-2019-final.pdf>

- 
- <sup>90</sup> UMass Donahue Institute. *Greater Springfield Regional Housing Analysis*.; 2021. [https://donahue.umass.edu/documents/Greater\\_Springfield\\_Regional\\_Housing\\_Analysis\\_Report.pdf](https://donahue.umass.edu/documents/Greater_Springfield_Regional_Housing_Analysis_Report.pdf).
- <sup>91</sup> Project HOPE. *Housing And Health: An Overview Of The Literature*. 2018. Accessed April 1, 2022. <http://dx.doi.org/10.1377/hpb20180313.396577>
- <sup>92</sup> U.S. Census Bureau, ACS, 5-year estimate 2015-2019
- <sup>93</sup> U.S.DA ERS. Food Access Research Atlas. Accessed April 1, 2022. <https://www.ers.usda.gov/data-products/food-access-research-atlas/>
- <sup>94</sup> Schindler S. Architectural Exclusion: Discrimination and Segregation Through Physical Design of the Built Environment. *Yale Law Journal*. 2015; 124 (6). <http://www.yalelawjournal.org/article/architectural-exclusion>
- <sup>95</sup> U.S.D.A. ERS. Access to Affordable, Nutritious Food Is Limited in “Food Deserts.” Accessed April 1, 2022. <https://www.ers.usda.gov/amber-waves/2010/march/access-to-affordable-nutritious-food-is-limited-in-food-deserts/>
- <sup>96</sup> Grier SA, Kumanyika SK. The Context for Choice: Health Implications of Targeted Food and Beverage Marketing to African Americans. *American Journal of Public Health*. 2008. 98(9): p. 1616-1629.
- <sup>97</sup> MDPH Rural Cluster DataTables
- <sup>98</sup> Gundersen, C, Strayer, M, Dewey, A, Hake, M, & Engelhard, E. Map the Meal Gap 2021: An Analysis of County and Congressional District Food Insecurity and County Food Cost in the United States in 2019. Feeding America. 2021. <https://map.feedingamerica.org/>
- <sup>99</sup> Food Bank of Western Massachusetts. Data compiled by PVPC in 2022.
- <sup>100</sup> Brenman, R. (2007) “Transportation Inequity in the United States - A Historical Overview.” .34 Hum. Rts. 7. Also see: White, G.B. “Stranded: How America's Failing Public Transportation Increases Inequality.” The Atlantic. Retrieved from <https://www.theatlantic.com/business/archive/2015/05/stranded-how-americas-failing-public-transportation-increases-inequality/393419/>
- <sup>101</sup> Homes without a Motor Vehicle BNH Service Area. 2021. Household conditions in our 11-ZCTA area (ACS 2015-2019). Broadstreet.
- <sup>102</sup> Pioneer Valley Transportation Authority, as reported to PVPC.
- <sup>103</sup> U.S. Bureau of Labor Statistics. Consumer Price Index News Release, March 10, 2022. <https://www.bls.gov/news.release/cpi.htm>
- <sup>104</sup> Pioneer Valley Transportation Authority, as reported to PVPC.
- <sup>105</sup> Community Supported Agriculture: consumers pay flat fee for a share of the farm’s harvest throughout the season.
- <sup>106</sup> Robert Wood Johnson Foundation. (2013) “Why Does Education Matter So Much to Health?” Health Policy Snapshot: Public Health and Prevention. Washington, D.C.: Robert Wood Johnson Foundation.
- <sup>107</sup> Parker K., Horowitz J.M., Brown A., Fry R., Cohn D., And Igielnik R. (2018) What Unites and Divides Urban, Suburban and Rural Communities. Pew Research Center. <https://www.pewresearch.org/social-trends/2018/05/22/demographic-and-economic-trends-in-urban-suburban-and-rural-communities/>
- <sup>108</sup> Fiscal Conditions in Rural School Districts. MA Department of Elementary and Secondary Education. January 2018.

- 
- <sup>109</sup> Noltemeyer, A.L., Mujic, J., & McLoughlin, C.S. (2012). The history of inequality in education. In A.L. Noltemeyer & C.S. McLoughlin (Eds.), *Disproportionality in Education and Special Education*. Springfield, IL: Charles C. Thomas Publisher Ltd.
- <sup>110</sup> Broadstreet. American Community Survey 2015-2019.
- <sup>111</sup> Financial Health Institute. Financial Health Defined. Available at <http://www.financialhealthinstitute.com/financial-health-defined/>
- <sup>112</sup> Value Penguin by Lending Tree. 2022. *Average U.S. Savings Account Balance 2019: A Demographic Breakdown*, based on analysis of 2016 Federal Reserve data. Available at <https://www.valuepenguin.com/banking/average-savings-account-balance>
- <sup>113</sup> Parker K., Horowitz J.M., Brown A., Fry R., Cohn D., And Igielnik R. (2018) What Unites and Divides Urban, Suburban and Rural Communities. Pew Research Center. <https://www.pewresearch.org/social-trends/2018/05/22/demographic-and-economic-trends-in-urban-suburban-and-rural-communities/>
- <sup>114</sup> Value Penguin by Lending Tree. 2022. *Average U.S. Savings Account Balance 2019: A Demographic Breakdown*, based on analysis of 2016 Federal Reserve data. Available at <https://www.valuepenguin.com/banking/average-savings-account-balance>
- <sup>115</sup> Urban Institute. (2017). Homeownership is still financially better than renting. Urban Wire: Housing and Housing Finance. Available at <https://www.urban.org/urban-wire/homeownership-still-financially-better-renting>
- <sup>116</sup> U.S. Census, ACS, 2013 – 2017
- <sup>117</sup> Housing stock in our 11-ZCTA area (ACS 2015-2019) vs. U.S. benchmark (BroadStreet 2021).
- <sup>118</sup> Shapiro, T., Tatjana, M., & Osoro, S., (2013). The Roots of Widening Racial Wealth Gap: Explaining the Black-White Economic Divide. Available at <http://iasp.brandeis.edu/pdfs/Author/shapiro-thomas-m/racialwealthgapbrief.pdf>
- <sup>119</sup> Katznelson, Ira. (2005). *When affirmative action was white: An untold history of racial inequality in twentieth-century America*. WW Norton & Company.
- <sup>120</sup> National Financial Educators Council. What is financial literacy? Available at <https://www.financialeducatorsCouncil.org/financial-literacy-definition/>
- <sup>121</sup> National Center for Education Statistics. 2015. Financial Literacy: Proficiency Levels. Program for International Student Assessment (PISA). Available at [https://nces.ed.gov/surveys/pisa/pisa2015/pisa2015highlights\\_11a\\_3.asp](https://nces.ed.gov/surveys/pisa/pisa2015/pisa2015highlights_11a_3.asp)
- <sup>122</sup> *Massachusetts Financial Literacy Fitness Report*. 2022. FitMoney. <https://www.fitmoney.org/massfinancialfitness>
- <sup>123</sup> *Bankruptcy Filing Trends in Massachusetts*. 2020. The American Bankruptcy Institute
- <sup>124</sup> MA Office of Economic Empowerment. (2021). *Personal Financial Literacy Education in the Massachusetts Public School System*. <https://www.mass.gov/doc/personal-financial-literacy-executive-summary/download>
- <sup>125</sup> Bill S. 2374: An Act relative to financial literacy in schools. Accessed August 22, 2022. <https://malegislature.gov/bills/190/S2374>
- <sup>126</sup> U.S. Department of Labor, Bureau of Labor Statistics. 2021-December. Source geography: County

- 
- <sup>127</sup> ACS 2015–2019
- <sup>128</sup> Massachusetts Institute of Technology Living Wage Calculator, <https://livingwage.mit.edu/counties/25013>
- <sup>129</sup> Massachusetts Department of Public Health. (2017). Determination of Need Health Priorities Guidelines.
- <sup>130</sup> Impact Report: COVID-19 and Domestic Violence Trends. Council on Criminal Justice. Published February 23, 2021
- <sup>131</sup> Federal Bureau of Investigation, FBI Uniform Crime Reports. Additional analysis by the National Archive of Criminal Justice Data. Accessed via the Interuniversity Consortium for Political and Social Research. 2014; 2016. Source geography: County).
- <sup>132</sup> Broadstreet. Number of reported violent crime offenses per 100,000 people for our 3-county area (CHR 2020).
- <sup>133</sup> National Institute of Environmental Health Science. (2013). Lead and Your Health. National Institutes of Health. Available at [https://www.niehs.nih.gov/health/materials/lead\\_and\\_your\\_health\\_508.pdf](https://www.niehs.nih.gov/health/materials/lead_and_your_health_508.pdf).
- <sup>134</sup> Massachusetts Department of Public Health. 2020 Annual Childhood Lead Poisoning Surveillance Report. 2020.
- <sup>135</sup> Home Health Hazards – Springfield Healthy Homes. <https://springfieldhealthyhomes.org/home-health-hazards/>
- <sup>136</sup> MA Executive Office of Energy and Environmental Affairs, Environmental Justice Populations in Massachusetts, 2020
- <sup>137</sup> City of Springfield. Climate change risk analysis: Assessment of future natural disaster threats and impact on Springfield. Prepared by Partners for a Healthier Community, 2015. and Impact on Springfield
- <sup>138</sup> Massachusetts Environmental Public Health Tracking. Climate Change | MEPHT. <https://matracking.ehs.state.ma.us/Climate-Change/index.html>.
- <sup>139</sup> Massachusetts Environmental Public Health Tracking. Climate Change | MEPHT. <https://matracking.ehs.state.ma.us/Climate-Change/index.html>.
- <sup>140</sup> CDC PLACES. <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65>
- <sup>141</sup> MDPH 2016–2019. Emergency Department Rates, Hampden County and Massachusetts, Age-Adjusted per 100,000.
- <sup>142</sup> Source: MDPH, 2012–2015. Emergency Room Visit Rates by Race for Asthma, Hampden County, Age-adjusted per 100,000
- <sup>143</sup> Source: MDPH, 2015. Rural Clusters Data. COPD Hospital Admission Rate. Age-adjusted per 100,000.
- <sup>144</sup> County Health Rankings, 2021.
- <sup>145</sup> CDC PLACES. <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65>
- <sup>146</sup> CMS. Geographic Variation Public Use File. Source geography: County. 2018.
- <sup>147</sup> Geographic Variation Public Use File. Source geography: County. 2018.
- <sup>148</sup> MDPH, Office of Population Health. *Massachusetts Deaths 2019*. 2022.
- <sup>149</sup> CDC PLACES. 2019.
- <sup>150</sup> UMass Donahue Institute. *Greater Springfield Regional Housing Analysis*. 2021.

- <sup>151</sup> Broadstreet. Adults ages 18 and older with self-reported diabetes in a 3-county area (U.S. DSS 2018).
- <sup>152</sup> University of Wisconsin Population Health Institute. County Health Rankings. 2021.
- <sup>153</sup> CDC PLACES. <https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65>
- <sup>154</sup> MDPH. Diabetes Emergency Department Rates by Race, Hampden County. Age-adjusted per 100,000. 2016–2019.
- <sup>155</sup> Hoyert DL, Freedman MA, Strobino DM, Guyer B. Annual summary of vital statistics: 2000. *Pediatrics* 108:1241–1255. 2001.
- <sup>156</sup> Tayebi T, Zahrani ST, Mohammadpour R. Relationship between adequacy of prenatal care utilization index and pregnancy outcomes. *Iran J Nurs Midwifery Res.* 2013;18(5):360–366.
- <sup>157</sup> CDC. Substance Use During Pregnancy. Published February 1, 2022.
- <sup>158</sup> University of Wisconsin Population Health Institute. County Health Rankings. Source geography: County. 2013–2019.
- <sup>159</sup> Broadstreet. Linked Infant Birth/Death Records in 3-County Area on CDC WONDER Online Database. 2012–2018.
- <sup>160</sup> CDC. Infant Mortality Rate by State. 2020. [https://www.cdc.gov/nchs/pressroom/sosmap/infant\\_mortality\\_rates/infant\\_mortality.htm](https://www.cdc.gov/nchs/pressroom/sosmap/infant_mortality_rates/infant_mortality.htm)
- <sup>161</sup> Howell EA, Egorova NN, Janevic T, et al. Race and Ethnicity, Medical Insurance, and Within-Hospital Severe Maternal Morbidity Disparities. *Obstetrics & Gynecology.* 2020;135(2):285–293. doi:10.1097/aog.0000000000003667
- <sup>162</sup> Broadstreet. New Gonorrhea cases per 100,000 people in a 3-county area (CDC AtlasPlus 2019).
- <sup>163</sup> Broadstreet. New Chlamydia cases per 100,000 people in a 3-county area (CDC AtlasPlus 2019).
- <sup>164</sup> Broadstreet. HIV prevalence per 100,000 people in a 3-county area (CDC AtlasPlus 2019).
- <sup>165</sup> Alzheimer’s Association. What is Alzheimer’s? Alzheimer’s Disease and Dementia. Accessed August 1, 2022. <https://www.alz.org/alzheimers-dementia/what-is-alzheimers>
- <sup>166</sup> Alzheimer’s Association. What is Alzheimer’s? Alzheimer’s Disease and Dementia. Accessed August 1, 2022. <https://www.alz.org/alzheimers-dementia/what-is-alzheimers>
- <sup>167</sup> Matias-Guiu, JA, Pytel, V, Matías-Guiu, J. Death Rate Due to COVID-19 in Alzheimer’s Disease and Frontotemporal Dementia, *Journal of Alzheimer’s Disease*, vol. 78, no. 2, pp. 537–541, 2020.
- <sup>168</sup> MDPH. Emergency Department Rates for Alzheimer’s, Baystate Noble Service Area, Age-Adjusted per 100,000. 2019.
- <sup>169</sup> CMS. CMS Geographic Variation Public Use File. Source geography: County. 2018.
- <sup>170</sup> UMass Donahue Institute. *Greater Springfield Regional Housing Analysis.* 2021.