

# COMMUNITY HEALTH ASSESSMENT



**UMass Memorial Health**  
HARRINGTON HOSPITAL



**2022**



---

# Table of Contents

<b>Acknowledgements</b> .....	<b>4</b>
<b>Background &amp; Purpose</b> .....	<b>3</b>
<b>APPROACH AND METHODS</b> .....	<b>4</b>
<b>Qualitative Data &amp; Community Engagement</b> .....	<b>8</b>
Stakeholder Interviews .....	8
Community Health Survey .....	9
<b>Quantitative Data &amp; Data Limitations</b> .....	<b>9</b>
<b>Community Assets</b> .....	<b>9</b>
<b>Feedback from Last Community Health Assessment</b> .....	<b>9</b>
<b>CHA Community Benefits Service Area</b> .....	<b>10</b>
<b>REGIONAL AND COMMUNITY CHARACTERISTICS</b> .....	<b>11</b>
<b>Total Population</b> .....	<b>12</b>
<b>Age</b> .....	<b>12</b>
<b>Race &amp; Ethnicity</b> .....	<b>13</b>
<b>Immigrants, Refugees, &amp; Non-English Speakers</b> .....	<b>15</b>
<b>Early Childhood, Youth, &amp; Adolescent Health</b> .....	<b>16</b>
<b>Older Adult Health &amp; Healthy Aging</b> .....	<b>18</b>
<b>LGBTQ+ Health</b> .....	<b>20</b>
<b>Individuals with Disabilities</b> .....	<b>21</b>
<b>Veterans</b> .....	<b>23</b>
<b>SOCIAL DETERMINANTS OF HEALTH</b> .....	<b>25</b>
<b>Socioeconomics</b> .....	<b>26</b>
Education .....	26
Employment, Income, & Poverty.....	27
<b>Food Insecurity</b> .....	<b>31</b>
<b>Built Environment, Transportation &amp; Accessibility</b> .....	<b>33</b>
<b>Housing &amp; Homelessness</b> .....	<b>34</b>
<b>Health Insurance and Navigation</b> .....	<b>36</b>
<b>HEALTH RISKS, BEHAVIORS, AND OUTCOMES</b> .....	<b>37</b>
<b>Health Risk Factors</b> .....	<b>38</b>
<b>Life Expectancy and Overall Mortality</b> .....	<b>39</b>
<b>Mental/Behavioral Health</b> .....	<b>40</b>

<b>Substance Use Disorder .....</b>	<b>41</b>
<b>Cardiovascular Disease &amp; Stroke .....</b>	<b>44</b>
<b>Cancer .....</b>	<b>45</b>
<b>Diabetes and Asthma .....</b>	<b>47</b>
<b>Maternal &amp; Infant Health.....</b>	<b>48</b>
<b>Infectious Disease &amp; Sexual Health .....</b>	<b>49</b>
<b>COVID-19 .....</b>	<b>50</b>
<b>Oral Health .....</b>	<b>51</b>
<b>CHA PRIORITIES .....</b>	<b>52</b>
<b>Priority Populations.....</b>	<b>53</b>
<b>Priority Areas and Cross Cutting Issues .....</b>	<b>54</b>
<b>ATTACHMENT A: Community Health Survey .....</b>	<b>55</b>
<b>ATTACHMENT B: Resource Inventory .....</b>	<b>76</b>
<b>ATTACHMENT C: Harrington Hospital Community Benefits: Evaluation of Impact .....</b>	<b>78</b>

## Background & Purpose

This 2022 Community Health Assessment (CHA) for UMass Memorial Health – Harrington Hospital (referred to as “Harrington” throughout this report) was developed in the spring and summer of 2022.

In FY21, UMass Memorial Health – Harrington Hospital was welcomed as a new affiliate hospital into the UMass Memorial Health system. Harrington serves patients from more than 25 communities across south central Massachusetts and northeastern Connecticut with a comprehensive array of services. Its community benefits efforts will address identified health needs and disparities throughout its community benefits service area.

Harrington has worked to plan and execute a regional needs assessment effort that identifies community health issues, barriers to care, disparities in health outcomes, vulnerable populations, gaps in the health service system, and opportunities for collaboration. CHA findings will be used to help ensure that community health improvement efforts are appropriately focused and delivered in ways that allow people to access health and health-related services when, where, and how they need them.

A goal of the CHA was to gather information on the lived experiences of diverse populations. Collecting this information is critical in efforts to center health equity and address needs and barriers in ways that are comprehensive, accessible, and culturally competent. The CHA was completed utilizing input from local stakeholders, including health and social service providers, advocates, representatives from community organizations, hospital leadership and staff, and community residents.

Federal and Commonwealth community benefits guidelines require that institutions conduct their CHAs and develop their strategic implementation plans in close collaboration with multisector community coalitions to take advantage of and leverage work already completed—as well as to avoid duplication of efforts. Harrington is dedicated to building a Community Benefits Advisory Committee (CBAC) that can help to guide future assessment processes and help to carry out the activities outlined in the Hospital’s Community Health Improvement Plan.

## Acknowledgements

Since the assessment began in the spring of 2022, over 1,500 individuals participated in the CHA, through interviews and a Community Health Survey. The information gathered through these efforts enabled the CHA to engage the community and gain a better understanding of the region's capacity, strengths and weaknesses, as well as health status, barriers to care, service gaps and underlying determinants of health. While it was not possible for this assessment to involve all community stakeholders, it engaged a comprehensive and inclusive sample of the population; those involved showed commitment to strengthening the region's health system, particularly for people most at-risk.

UMass Memorial Health – Harrington Hospital would like to thank everyone who was involved in this effort, but particularly the region's service providers and community members who invested their time, effort, and expertise.

This work was supported by John Snow, Inc. (JSI), a public health research and consulting organization dedicated to improving the health of individuals and communities.

# APPROACH AND METHODS

Over the past decade, there has been an increased understanding—among policymakers, public officials, HMOs and service providers—of the importance of developing broad system-wide plans to guide public and private agencies, service providers and other stakeholders as they work collectively to address barriers to care, improve health status and strengthen regional health systems. To be effective, these plans and their assessments and recommendations must be:

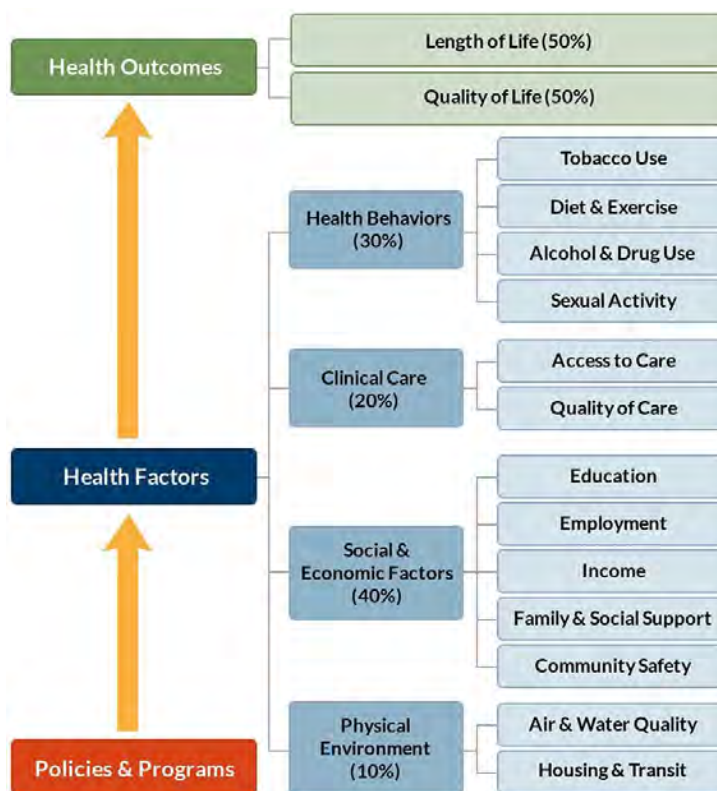
- **Comprehensive**—involving the full range of health care, social service and public health providers
- **Data-driven**—applying quantitative and qualitative data from primary and secondary sources in ways that allow for sound decision making
- **Collaborative**—engaging all relevant stakeholders including, public agencies, service providers and the at-large community in a transparent, inclusive process
- **Action-oriented, measurable and justifiable**—providing a clear path or roadmap that guides action in clear, specific, measurable ways and allows for the implementation of short-term and long-term strategies
- **Evidence-based**—implementing projects and strategies that are proven, rooted in clinical or service provider experience and that take into consideration the interests and needs of the target population

The CHA utilized a mixed-methods assessment approach that integrates quantitative and qualitative data. The effort focused on compiling information through an extensive community engagement effort that involved stakeholder interviews, focus groups, and a community health survey, as described below. Data and findings from recent local assessment and planning efforts have also been integrated into this report.

Historically, the health care system has focused more on clinical services, physical health and treatment of chronic conditions, such as heart disease, cancer, asthma and diabetes. Over the past decade, there has been a clear shift to focus on preventing and addressing the underlying social, economic, behavioral and physical

determinants of health. There is increasing awareness that these issues are at the root of poor individual health status, community well-being and overall population health. As shown in Figure 1, there is growing body of research shows that only a small portion of one’s overall health can be attributed

**FIGURE 1: FRAMEWORK FOR COMMUNITY HEALTH IMPROVEMENT**



Source: Robert Wood Johnson Foundation

directly to access to and quality of clinical care. The remainder is linked to genetics, health behaviors, social and economic factors, and physical residential environments. With respect to community health assessment and improvement, the efforts of the UMass Memorial Health – Harrington Hospital CHA, the CHIP, along with the expectations of the Commonwealth and the federal government, are framed with these ideas in mind.

**FIGURE 2: THE SOCIAL DETERMINANTS OF HEALTH**



The Massachusetts Attorney General’s Office Community Benefits Guidelines and the Massachusetts Department of Public Health (MDPH) Determination of Need Guidelines have established priorities to guide and focus the community health improvement work of hospitals and health maintenance organizations (HMOs) across the Commonwealth. With emphasis on helping disadvantaged populations, reducing health disparities and promoting wellness, these priorities include chronic disease management, mental health, substance use, housing and violence.

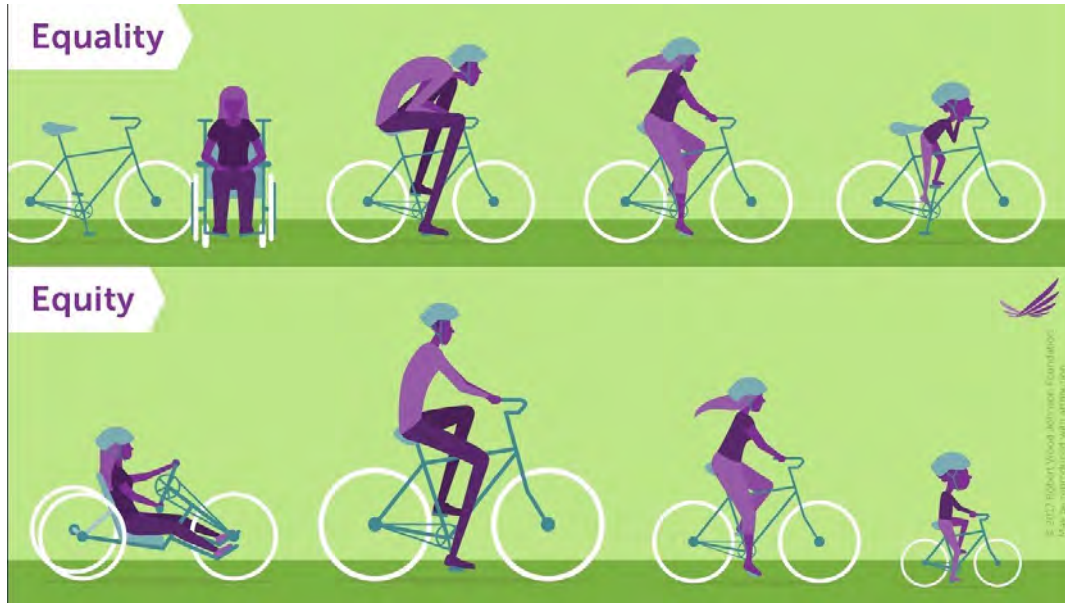
These guidelines are not meant to restrict the unique issues that not-for-profit hospitals and HMOs decide to prioritize. Rather, they clarify the idea that in order to reduce health-related disparities and have a genuine and sustained impact on health and well-being, CHAs and their subsequent strategic implementation plans must address the underlying social determinants, inequities, and injustices at the root of health status issues.

Harrington understands the need for the CHA to be aligned with the region’s broader agenda of promoting health and well-being, addressing health disparities, and conducting their efforts in the context of health equity. Health equity is the attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally, with focused, ongoing societal efforts to



address avoidable inequalities, underlying socioeconomic factors and injustices, whether historical or contemporary.

**FIGURE 3: EQUALITY VS. EQUITY**



Source: Robert Wood Johnson Foundation

## Qualitative Data & Community Engagement

### Stakeholder Interviews

Staff from [JSI](#) worked with Harrington to conduct stakeholder interviews with hospital staff and representatives from some of the leading community-based organizations in the service area. Stakeholders were asked to share their perspectives on leading social determinants of health, access to care issues, vulnerable populations, and opportunities for the hospital to address issues in collaboration with other community organizations.

Interviewee	Role & Affiliation
Christina Beesley	Director of Outpatient Behavioral Health Services, UMass Memorial Health – Harrington Hospital
Emily Billings	Program Director, Southbridge Family Resource Center
Camille Diaz	Program Director, Healthy Families of Southern Worcester County
Brittany Garceau	Program Navigator, Addiction Immediate Care
Jenny McDonnell	Community Coordinator, South Central WIC Program
Edward Moore	President, UMass Memorial Health – Harrington Hospital
Ashley Rebello	Program Director, Sturbridge Day Habilitation (Center of Hope Foundation)
Dolores Toribio	Family Partner Supervisor, YOU, Inc.
Jennifer Tretheway	Satellite Site Coordinator, Family Health Center of Worcester (Southbridge)



## Community Health Survey

In June of 2022, Harrington administered a web-based community health, open to all individuals who live and work in the hospital's service area. Hospital staff worked to craft a survey that was accessible and easy to understand (Attachment A). It was distributed widely, from June 23rd-August 22nd, 2022. Methods of distribution included:

- Postings on Facebook pages and social media platforms
- Email distribution lists
- Promotion at various community events
- Discussions with community stakeholders at meetings and engagements

Findings from the Community Health Survey are included throughout this report.

### Most Community Health Survey respondents:

- Identified as female (55%, n=979)
- Were under 60 years of age (55%, n=974)
- Identified as White/Caucasian (89%, n=1,578)
- Had a college degree – including degrees from technical schools (51%, n=906)
- Had annual household incomes below \$75,000 (69%, n=1,238)

## Quantitative Data & Data Limitations

For this report, data was gathered from a broad range of sources to characterize the community, better understand health status in the region, and to inform a comprehensive understanding of the many factors associated with poor health status. Whenever possible, data was collected at the municipal or zip code level.

The Massachusetts Department of Public Health (MDPH) created the Population Health Information Tool (PHIT), which is meant to present data stratified by demographic and socioeconomic variables (e.g., gender identity, age, race, ethnicity, disability status, poverty level) for counties, states, and municipalities. At the time this report was produced, data available via the PHIT was extremely limited. The most significant issue this limitation caused was the availability of timely data related to morbidity, mortality, health behaviors, and service utilization. Additionally, not all quantitative data was available in ways that stratified by demographic characteristics, which limited the ability to identify health disparities in an objective way. Qualitative activities allowed for exploration of these issues, but the lack of objective quantitative data constrained the effort.

## Community Assets

Federal and Commonwealth community benefits requirements indicate that a Resource Inventory should be created to inform the extent to which there are gaps in health-related services. To this end, a list of community assets has been developed and can be found in Attachment B.

## Feedback from Last Community Health Assessment

There was no written feedback on the previous CHA or Implementation Plan since its posting in 2018. There was also no feedback on the Massachusetts Attorney General's website, which publishes the



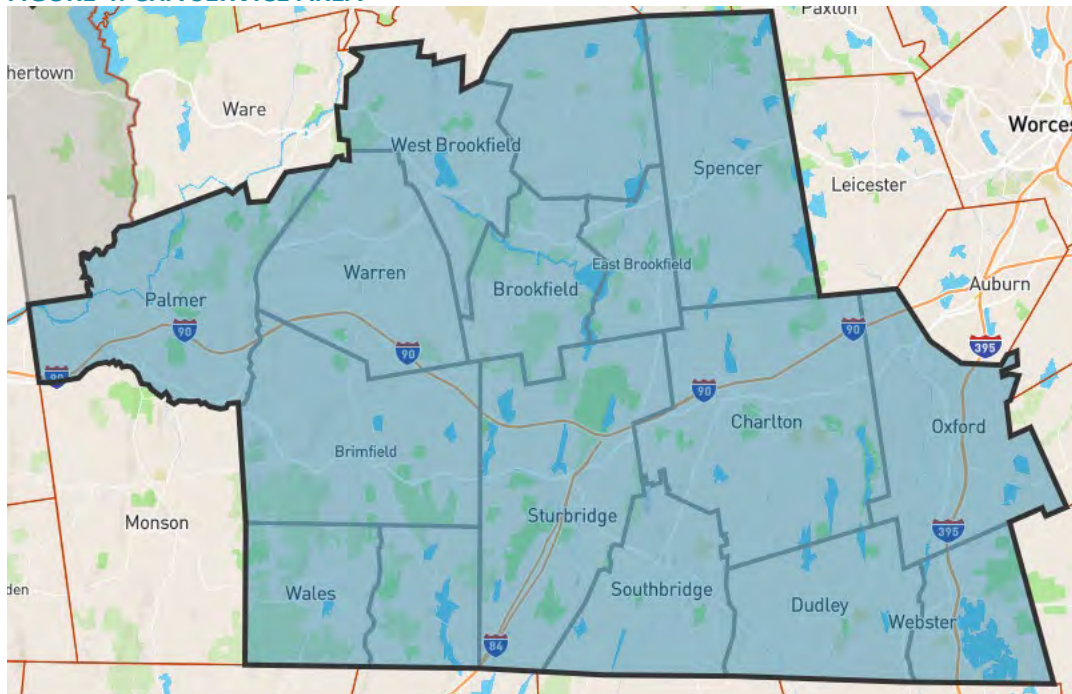
hospital's community benefits reports and provides an opportunity for public comment. Harrington encourages feedback and comments on this report; any feedback is taken into account when planning future CHA processes.

### CHA Community Benefits Service Area

The CHA's Community Benefits Service Area (CBSA) includes the municipalities of Brimfield, Brookfield, Charlton, Dudley, East Brookfield, Holland, North Brookfield, Oxford, Palmer, Southbridge, Spencer, Sturbridge, Wales, Warren, Webster, and West Brookfield. Data tables in this report include data for Hampden County, Worcester County, and the Commonwealth of Massachusetts when possible.

As a population-based assessment, the CHA considers the needs of the entire population - regardless of demographics, socioeconomics, health status, and if/where people receive health care services. Special attention is given to addressing the needs of populations that face disparities in health-related outcomes, have been disenfranchised, and those who are more likely to experience barriers to care.

**FIGURE 4: CHA SERVICE AREA**





# REGIONAL AND COMMUNITY CHARACTERISTICS



## Total Population

The CHA CBSA is in south central Massachusetts, and spans communities in both Hampden and Worcester Counties. Webster (17,776) and Southbridge (17,740) have the largest populations of all CHA communities, while Wales has the smallest (1,832). The service area overall can be described as rural or semi-rural.

**TABLE 1: TOTAL POPULATION, LAND AREA, POPULATION DENSITY**

	Total Population	Total Land Area (Square Miles)	Population Density (Per Square Mile)
Brimfield, Hampden County	3694	34.77106	106.2378
Brookfield, Worcester County	3439	15.52709	221.4839
Charlton, Worcester County	13315	42.17887	315.6794
Dudley, Worcester County	11921	20.83236	572.2347
East Brookfield, Worcester County	2224	9.86384	225.47
Holland, Hampden County	2603	12.28212	211.9341
North Brookfield, Worcester County	4735	21.26879	222.6267
Oxford, Worcester County	13347	26.51712	503.3352
Palmer, Hampden County	12448	31.57292	394.2619
Southbridge, Worcester County	17740	20.23827	876.5571
Spencer, Worcester County	11992	32.85122	365.0397
Sturbridge, Worcester County	9867	37.23059	265.024
Wales, Hampden County	1832	15.75222	116.3011
Warren, Worcester County	4975	27.53362	180.6882
Webster, Worcester County	17776	12.35724	1438.509
West Brookfield, Worcester County	3833	20.47544	187.1999
Hampden County	465825	617.0016	754.9818
Worcester County	862111	1510.673	570.68
Massachusetts	7029917	7800.958	901.1607

Source: US Census Bureau, 2020

## Age

Age is a fundamental factor to consider when assessing individual and community health status. Older individuals typically have more physical and mental health vulnerabilities and are more likely to rely on immediate community resources for support compared to young people.

The median age was higher than the Commonwealth (39.6 years) in all CBSA communities, with the exceptions of Oxford (38.7 years) and Warren (37.5 years). The highest median age was in West Brookfield (51.6 years). In Brimfield, Brookfield, Spencer, Sturbridge, and West Brookfield, over a fifth of community residents were over the age of 65.

**TABLE 2: AGE DISTRIBUTION**

	Median Age	Age 0-4	Age 5-19	Age 20-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+
Brimfield, Hampden County	46.2	4.7%	17.7%	1.9%	10.5%	13.4%	13.5%	17.0%	20.4%
Brookfield, Worcester County	46	2.4%	16.5%	8.3%	11.6%	8.7%	17.0%	14.4%	21.1%
Charlton, Worcester County	40.2	5.8%	22.0%	5.3%	10.6%	12.7%	14.1%	16.4%	15.3%
Dudley, Worcester County	40.4	2.1%	23.7%	9.7%	9.3%	9.3%	15.7%	13.1%	15.2%
East Brookfield, Worcester County	45.9	8.4%	11.8%	4.5%	14.6%	7.9%	11.3%	18.8%	19.7%
Holland, Hampden County	47.7	4.8%	17.6%	4.4%	9.8%	8.9%	14.6%	17.9%	17.7%
North Brookfield, Worcester County	46.7	5.6%	13.7%	6.6%	10.6%	10.1%	18.3%	17.6%	18.4%
Oxford, Worcester County	38.7	5.1%	19.3%	7.5%	14.3%	12.8%	15.0%	15.2%	15.4%
Palmer, Hampden County	45.7	5.0%	14.9%	6.8%	11.6%	9.9%	10.8%	21.0%	18.2%
Southbridge, Worcester County	40.2	6.5%	16.5%	7.8%	12.1%	10.2%	13.2%	14.9%	13.8%
Spencer, Worcester County	47.7	3.3%	15.5%	4.0%	9.6%	13.6%	12.5%	19.1%	22.0%
Sturbridge, Worcester County	43.7	6.4%	18.7%	3.6%	8.2%	12.7%	15.6%	11.6%	20.1%
Wales, Hampden County	41.8	7.8%	21.4%	3.6%	13.4%	17.1%	15.9%	18.0%	16.7%
Warren, Worcester County	37.5	8.6%	19.2%	5.9%	14.8%	17.1%	13.2%	14.5%	11.4%
Webster, Worcester County	41.2	6.2%	16.0%	4.2%	13.2%	12.2%	12.0%	14.0%	17.5%
West Brookfield, Worcester County	51.6	3.7%	12.9%	3.9%	10.9%	9.1%	15.3%	17.5%	23.7%
Hampden County	39.4	5.5%	19.1%	7.2%	13.3%	11.6%	12.8%	13.7%	16.9%
Worcester County	40.2	5.1%	17.9%	6.5%	12.4%	11.6%	13.6%	13.7%	15.0%
Massachusetts	39.6	5.1%	17.2%	6.9%	14.0%	12.0%	13.1%	13.3%	16.2%

Source: US Census Bureau 5-year estimates, 2016-2020

## Race & Ethnicity

An extensive body of research illustrates the health disparities and differences in health care access and utilization by race and ethnicity. As stated by the Center for American Progress, "[these disparities](#) are not a result of individual or group behavior but decades of systematic inequality in American economic, housing, and health care systems." These disparities illustrate the disproportionate and often avoidable inequities that exist within communities and reinforce the importance of understanding demographics to identify populations more likely to experience adverse health outcomes.

In all CBSA communities, the majority of community residents identified as non-Hispanic white. However, it should be noted that the percentage of Hispanic/Latino residents in Hampden County (26%), and many of the CBSA communities, was significantly high compared to the Commonwealth overall. Looking across all CBSA communities, percentages were particularly high in Southbridge (36%), Webster (14%), and Dudley (12%). In these communities, the most common nation of origin was Puerto Rico.

Interviewees expressed concern about issues of discrimination, language and cultural barriers to care, and racial equity in the community.



“Racial equity is important. But some don’t know the basics – like the difference between race and ethnicity. People don’t understand these terms. Our community needs education on what racial equity and language equity are, and what it means for them.” – CHA interviewee

**TABLE 3: RACE AND ETHNICITY**

	<b>Non-Hispanic White</b>	<b>Hispanic or Latino of any race</b>	<b>Black or African American</b>	<b>Asian</b>	<b>Non-Hispanic Two or More Races</b>
Brimfield, Hampden County	89.6%	3.2%	0.7%	0.8%	5.3%
Brookfield, Worcester County	91.0%	3.5%	0.6%	0.5%	4.1%
Charlton, Worcester County	90.4%	4.0%	0.9%	1.1%	3.1%
Dudley, Worcester County	80.7%	12.4%	1.6%	1.2%	3.5%
East Brookfield, Worcester County	90.0%	4.3%	0.9%	1.5%	3.2%
Holland, Hampden County	91.1%	3.1%	0.5%	1.2%	3.7%
North Brookfield, Worcester County	90.3%	4.1%	0.6%	0.6%	4.0%
Oxford, Worcester County	86.9%	6.0%	1.5%	1.1%	3.7%
Palmer, Hampden County	85.8%	6.4%	1.9%	1.4%	4.2%
Southbridge, Worcester County	56.7%	36.1%	1.9%	1.8%	2.8%
Spencer, Worcester County	84.7%	8.2%	2.0%	0.8%	3.7%
Sturbridge, Worcester County	87.4%	4.3%	1.4%	2.0%	4.2%
Wales, Hampden County	92.4%	2.2%	0.3%	0.1%	3.4%
Warren, Worcester County	90.1%	4.3%	0.6%	0.5%	4.1%
Webster, Worcester County	75.7%	13.9%	3.9%	1.8%	3.7%
West Brookfield, Worcester County	91.1%	3.2%	0.7%	0.7%	4.0%
Hampden County	59.8%	26.0%	7.7%	2.6%	3.3%
Worcester County	70.9%	13.0%	5.1%	5.3%	4.4%
Massachusetts	67.6%	12.6%	6.5%	7.2%	4.7%

Source: US Census Bureau 5-year estimates, 2016-2020

**TABLE 4: PERCENT OF THE TOTAL POPULATION THAT IS HISPANIC/LATINO, BY SPECIFIC ORIGIN**

	Mexican	Puerto Rican	Cuban	Dominican	Central American	South American	Other Hispanic/Latino
Brimfield, Hampden County	0.0%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%
Brookfield, Worcester County	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Charlton, Worcester County	0.5%	3.5%	0.1%	0.1%	0.0%	0.0%	0.1%
Dudley, Worcester County	0.5%	2.3%	0.1%	0.1%	0.0%	0.0%	0.0%
East Brookfield, Worcester County	0.0%	2.5%	0.0%	0.4%	0.0%	0.0%	0.0%
Holland, Hampden County	0.8%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%
North Brookfield, Worcester County	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.1%
Oxford, Worcester County	0.0%	3.1%	0.0%	0.8%	0.0%	0.0%	0.3%
Palmer, Hampden County	2.8%	3.3%	0.3%	0.0%	0.0%	0.0%	0.1%
Southbridge, Worcester County	1.0%	24.5%	0.1%	2.7%	0.0%	0.0%	0.1%
Spencer, Worcester County	0.1%	1.3%	0.0%	0.0%	0.0%	0.0%	0.2%
Sturbridge, Worcester County	0.1%	1.2%	0.0%	0.7%	0.0%	0.0%	0.0%
Wales, Hampden County	2.3%	1.7%	0.0%	0.0%	0.0%	0.0%	0.2%
Warren, Worcester County	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Webster, Worcester County	0.0%	9.9%	0.1%	1.0%	0.0%	0.0%	0.2%
West Brookfield, Worcester County	0.0%	0.5%	1.0%	0.0%	0.0%	0.0%	0.2%
Hampden County	0.7%	21.5%	0.3%	1.3%	0.0%	0.0%	0.4%
Worcester County	0.7%	6.6%	0.2%	1.2%	0.0%	0.0%	0.5%
Massachusetts	0.7%	4.6%	0.2%	2.2%	0.0%	0.0%	0.6%

Source: US Census Bureau 5-year estimates, 2016-2020

## Immigrants, Refugees, & Non-English Speakers

Language and cultural barriers pose significant challenges to receiving effective and high-quality health and social services. [Studies show](#) that health outcomes improve when patients and providers speak the same language.

Interviewees identified language and cultural barriers as a barrier to accessing care and services, especially given the high percentage of Spanish-speaking residents in some of the CBSA communities.

“One of the biggest barriers to primary care is just getting patients where they need to be – we see tie ups. If a Spanish-speaking person isn’t working in the office, they (the patient) may not know when their follow up appointment is. The language barriers are huge. This also affects other things – patients not knowing how to access



transportation for example. Maybe they're eligible for the PT1 program but they don't know about it."-CHA interviewee

The table below reports the percentage of the population aged 5 and older who speak a language other than English at home and speak English less than "very well." This indicator is relevant because an inability to speak English well creates barriers to health care access, provider communications, job opportunities and health literacy/education. Note that one in ten residents in Southbridge have limited English proficiency.

**TABLE 5: POPULATION WITH LIMITED ENGLISH PROFICIENCY**

	Ability to Speak English Less than Very Well
Brimfield, Hampden County	0.4%
Brookfield, Worcester County	0.9%
Charlton, Worcester County	2.0%
Dudley, Worcester County	2.1%
East Brookfield, Worcester County	1.6%
Holland, Hampden County	0.8%
North Brookfield, Worcester County	0.2%
Oxford, Worcester County	2.5%
Palmer, Hampden County	3.0%
Southbridge, Worcester County	10.4%
Spencer, Worcester County	1.8%
Sturbridge, Worcester County	2.3%
Wales, Hampden County	0.2%
Warren, Worcester County	1.7%
Webster, Worcester County	4.9%
West Brookfield, Worcester County	0.4%
Hampden County	9.3%
Worcester County	6.6%
Massachusetts	8.5%

Source: US Census Bureau 5-year estimates, 2016-2020

## Early Childhood, Youth, & Adolescent Health

Concerns around the health and wellness of young people, including young children, teens, and young adults, were at the forefront of discussions over the course of the Community Health Assessment. Most of the discussion centered on mental health concerns, especially in the wake of COVID-19, where young people may witness and bear the effects of stress in their homes and communities. Families, caregivers, and students have had routines interrupted, resulting in uncertainty, economic concerns, and anxiety.

CHA interviewees identified the access to mental health services was difficult, due to cost and insurance barriers, lack of providers/services (especially for youth), and general access issues (e.g., transportation

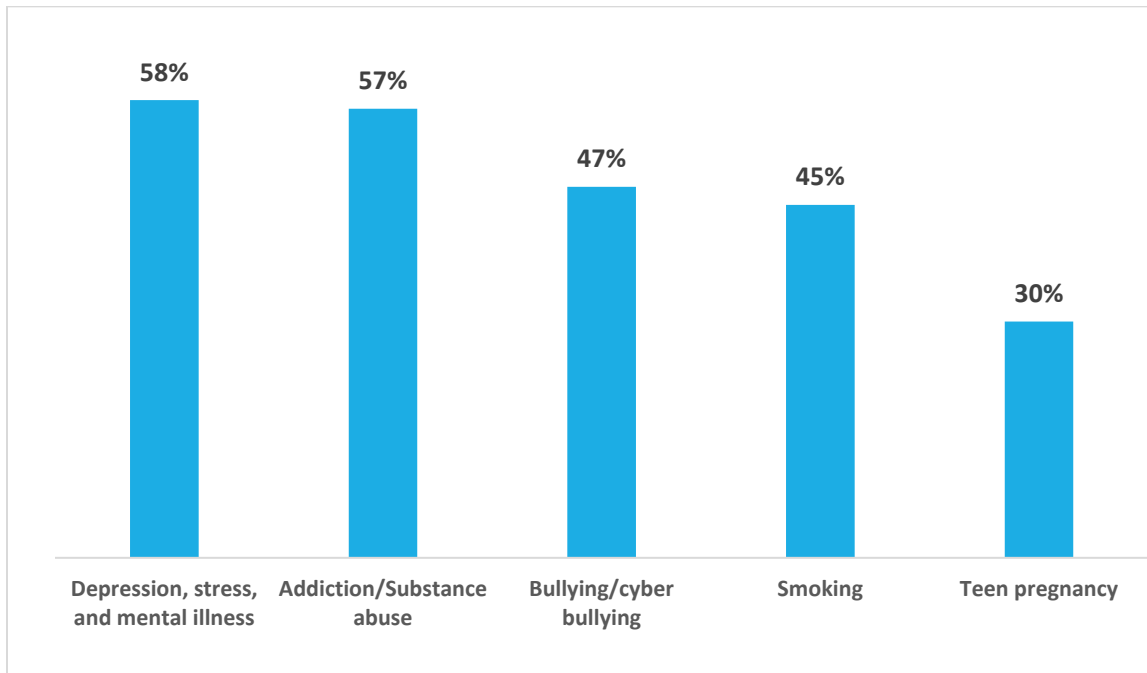
barriers, inability of parents to get children to appointments.) The transition of some services to telehealth mitigated these barriers for some.

“We’ve seen an uptick in mental health issues among the teen population. In some ways the pandemic was helpful because a lot of counseling services became available via telehealth – we were able to have these appointments over telephone and video. In some ways that was good – but access in general is hard.” – CHA interviewee

Interviewees were particularly concerned about specific segments of the population, including youth from families with limited economic means and non-English speakers, who may have needs for more intensive mental health and social supports.

CHA Community Health Survey respondents were asked to identify the major health concerns for the youth and adolescent population (under 18 years of age). The most common response was depression, stress, and mental illness (58%, n=1,075), followed closely by addiction and substance abuse (57%, n=1,048).

**FIGURE 5: WHICH OF THE FOLLOWING WOULD YOU IDENTIFY AS BEING A MAJOR HEALTH CONCERN FOR YOUTH/ADOLESCENTS? (TOP 5 RESPONSES) VIA COMMUNITY HEALTH SURVEY**





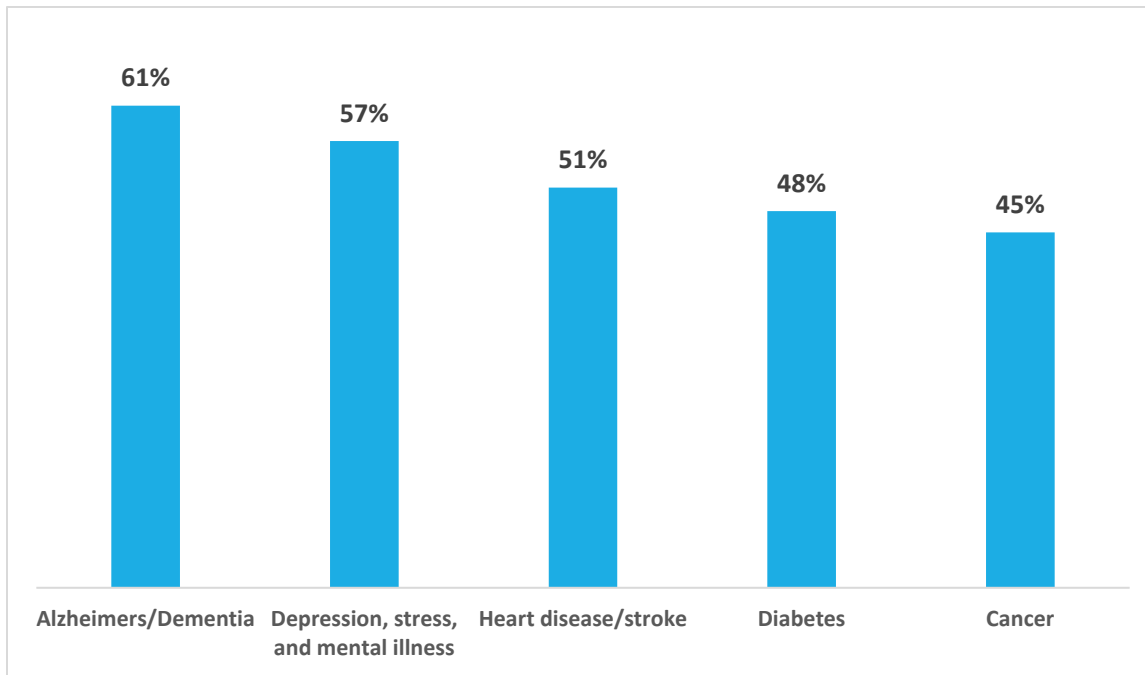
## Older Adult Health & Healthy Aging

In the U.S. and the Commonwealth, older adults are among the fastest-growing age groups. Chronic and complex conditions are the leading cause of death among older adults, and older adults are more likely to develop chronic illnesses and conditions such as hypertension, diabetes, COPD, congestive heart failure, depression, anxiety, Alzheimer's disease, Parkinson's disease, and dementia than are younger adult cohorts. By 2030, the [CDC and the Healthy People 2020](#) Initiative estimates that 37 million people nationwide, or 60% of those over 65, will have multiple chronic conditions.

Some of the greatest barriers to care for this population center around health care accessibility and navigation - understanding their health insurance coverage, transportation to and from medical appointments, navigating care transitions and discharge planning, and medication management. Other barriers are the lack of accessible and affordable home health and home support programs, including care for older adults with behavioral health and neurological conditions. A significant percentage of these individuals experience hospitalizations, are admitted to nursing homes and require health services and social supports in home and community settings. The ability to live independently and to "age in-place" – or to find affordable and accessible housing options – is a leading concern among older adults and their caregivers.

Concerns around social isolation, mobility issues, and lack of transportation have, historically, been a concern for older adults; all of these concerns were exacerbated during the pandemic. Many sectors, including health care, were quick to transition in-person programs and services to virtual, though this presented new challenges for older adults, who may be less tech savvy or lack the necessary resources (e.g., smartphones, tablets, computers, broadband internet). These issues were exacerbated for older adults who are non-English speakers. CHA Community Health Survey respondents were asked to identify major health concerns for older adults over the age of 65. The most common responses were Alzheimer's/dementia (61%, n=1,136) and depression, stress, and mental illness (57%, n=1,048).

**FIGURE 6: WHICH OF THE FOLLOWING WOULD YOU IDENTIFY AS MAJOR CONCERNS FOR THE SENIOR (65+ POPULATION?) (TOP 5 RESPONSES) VIA COMMUNITY HEALTH SURVEY**



In Brookfield (21%), Spencer (22%), and West Brookfield (24%), over a fifth of community residents are over the age of 65.

**TABLE 6: OLDER ADULTS IN THE SERVICE AREA**

	Number of Older Adults 65+	Percent of the Total Population Age 65+
Brimfield, Hampden County	753	20.4%
Brookfield, Worcester County	725	21.1%
Charlton, Worcester County	2035	15.3%
Dudley, Worcester County	1812	15.2%
East Brookfield, Worcester County	439	19.7%
Holland, Hampden County	462	17.7%
North Brookfield, Worcester County	869	18.4%
Oxford, Worcester County	2,055	15.4%
Palmer, Hampden County	2,267	18.2%
Southbridge, Worcester County	2,447	13.8%
Spencer, Worcester County	2,634	22.0%
Sturbridge, Worcester County	1,980	20.1%
Wales, Hampden County	306	16.7%
Warren, Worcester County	565	11.4%
Webster, Worcester County	3,107	17.5%
West Brookfield, Worcester County	910	23.7%
Hampden County	78,933	16.9%



Worcester County	129,519	15.0%
Massachusetts	113,6566	16.2%

Source: US Census Bureau 5-year estimates, 2016-2020

**TABLE 7: OLDER ADULTS 65+ LIVING ALONE**

	Number of Adults Age 65+ Living Alone	Percent of Adults Age 65+ Living Alone
Brimfield, Hampden County	211	28.0%
Brookfield, Worcester County	273	37.7%
Charlton, Worcester County	366	18.0%
Dudley, Worcester County	674	37.2%
East Brookfield, Worcester County	85	19.4%
Holland, Hampden County	109	23.6%
North Brookfield, Worcester County	195	22.4%
Oxford, Worcester County	563	27.4%
Palmer, Hampden County	571	25.2%
Southbridge, Worcester County	600	24.5%
Spencer, Worcester County	886	33.6%
Sturbridge, Worcester County	352	17.8%
Wales, Hampden County	56	18.3%
Warren, Worcester County	221	39.1%
Webster, Worcester County	929	29.9%
West Brookfield, Worcester County	172	18.9%
Hampden County	24,271	30.7%
Worcester County	35,797	27.6%
Massachusetts	319,873	28.1%

Source: US Census Bureau 5-year estimates, 2016-2020

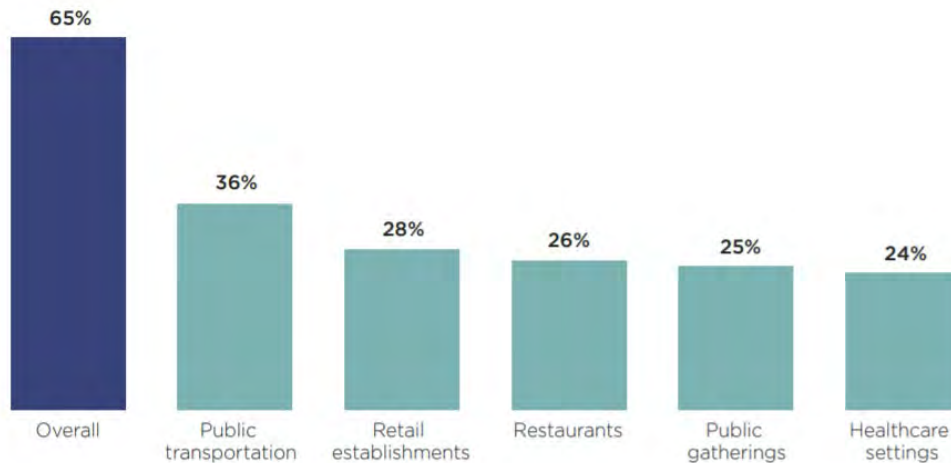
## LGBTQ+ Health

The [Boston Indicators](#) project reports that Massachusetts has the second largest LGBTQ+ population of any state in the nation (5%); and that 16% of 18 to 24-year-olds identify as lesbian, gay, bisexual or something else. Hampden County has the fourth highest percentage of LGBT residents (6.7%) among all Massachusetts counties. While societal acceptance of the LGBTQ+ community has increased greatly over the past several decades, this population continues to face issues of disproportionate violence and discrimination, socioeconomic inequality, and health disparities.

Though there is a tendency to view LGBTQ+ as a monolithic identity, some segments of the population experience greater disparities than others. In Massachusetts, [nearly two-thirds](#) (65%) of transgender people report experiencing discrimination in public spaces in the past year, and approximately 17% percent of transgender people were living in poverty in 2015, compared to 11.5% of the general population. Many LGBT youth struggle with mental health conditions: in Massachusetts in 2015, 61% of

LGBTQ+ youth reported feeling so sad or hopeless that they were not able to maintain their usual activities, compared to 24% of heterosexual youth. LGBT youth of color also experience these disparities, compounded with other race-based forms of discrimination.

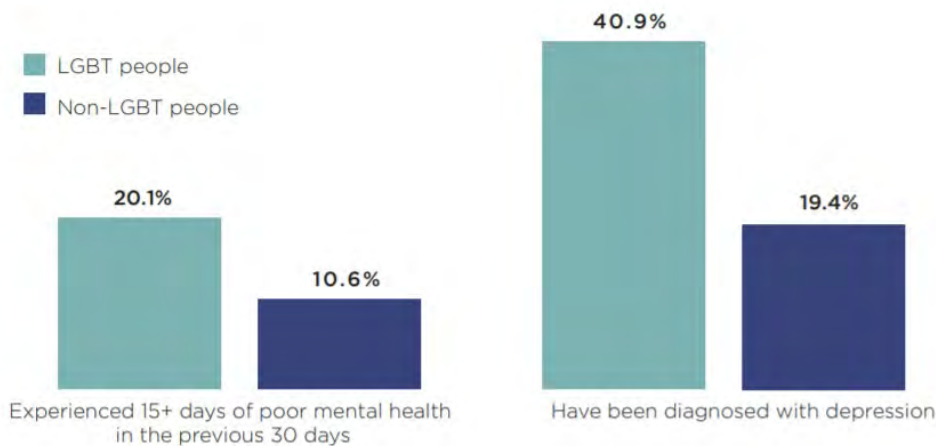
**FIGURE 7: SHARE OF TRANSGENDER POPULATION IN MASSACHUSETTS EXPERIENCING DISCRIMINATION IN THE PAST YEAR, BY PUBLIC PLACE (2014)**



Source: Reisner SL, White JM, Dunham E, Heflin K, Begenyi J, Coffey-Esquivel J, Cahill S. (2015). Legal protections in public accommodations settings: A critical public health issue for transgender and gender non-conforming people. *Milbank Quarterly*, 93(3): 484-515.

From the Boston Indicators Project

**FIGURE 8: SHARE OF ADULT POPULATION EXPERIENCING DEPRESSIVE SYMPTOMS IN MASSACHUSETTS, 2011-2016**



Source: Analysis of 2011-2016 Massachusetts Behavioral Risk Factor Surveillance System data conducted by Maria McKenna, PhD, Massachusetts Department of Public Health.

## Individuals with Disabilities

[Research](#) has shown that individuals with physical, mental, and intellectual disabilities experience significant disadvantages related to the social determinants of health and associated disparities, including lower levels of educational attainment and income, lower screening rates, high rates of obesity, and difficulty accessing health services. In healthcare, there has been increasing recognition of



health disparities by demographic characteristics (e.g., by race, ethnicity, income, gender identity), [but less so for those with disabilities](#).

In all CBSA communities, with the exception of only Holland (11.1%), Wales (10.8%), and Warren (8.3%), the percentage of the population with a disability was higher than the Commonwealth overall (11.3%).

**TABLE 8: POPULATION WITH ANY DISABILITY**

	Number of People Living with a Disability	As a Percent of the Total Population
Brimfield, Hampden County	516	14.0%
Brookfield, Worcester County	433	12.6%
Charlton, Worcester County	1,739	13.1%
Dudley, Worcester County	1,732	14.5%
East Brookfield, Worcester County	292	13.1%
Holland, Hampden County	290	11.1%
North Brookfield, Worcester County	685	14.5%
Oxford, Worcester County	1,822	13.7%
Palmer, Hampden County	2,030	16.3%
Southbridge, Worcester County	3,222	18.2%
Spencer, Worcester County	1,518	12.7%
Sturbridge, Worcester County	1,148	11.6%
Wales, Hampden County	198	10.8%
Warren, Worcester County	412	8.3%
Webster, Worcester County	2,775	15.6%
West Brookfield, Worcester County	567	14.8%
Hampden County	74,352	16.0%
Worcester County	99,567	11.5%
Massachusetts	795,507	11.3%

Source: US Census Bureau 5-year estimates, 2016-2020

**TABLE 9: DISABILITY CHARACTERISTICS (%)**

	Hearing Difficulty	Vision Difficulty	Cognitive Difficulty	Ambulatory Difficulty	Self-Care Disability	Independent Living Difficulty
Brimfield, Hampden County	3.6%	1.5%	3.9%	6.4%	1.1%	2.7%
Brookfield, Worcester County	2.5%	2.3%	5.3%	6.7%	4.5%	7.6%
Charlton, Worcester County	3.0%	1.3%	6.4%	4.9%	1.8%	4.6%
Dudley, Worcester County	5.4%	1.8%	5.1%	6.1%	2.5%	5.6%
East Brookfield, Worcester County	3.8%	0.2%	1.8%	9.5%	2.8%	5.1%
Holland, Hampden County	3.5%	1.4%	3.0%	5.2%	0.7%	2.1%
North Brookfield, Worcester County	6.9%	0.5%	4.4%	7.7%	2.3%	6.0%
Oxford, Worcester County	4.9%	1.7%	6.6%	5.7%	2.9%	5.5%

Palmer, Hampden County	6.8%	2.4%	5.8%	6.3%	1.9%	4.6%
Southbridge, Worcester County	4.1%	3.7%	8.4%	8.7%	3.4%	7.8%
Spencer, Worcester County	5.1%	2.4%	2.8%	4.9%	1.2%	4.4%
Sturbridge, Worcester County	2.5%	1.5%	4.0%	6.5%	1.0%	4.2%
Wales, Hampden County	4.1%	1.6%	3.3%	3.1%	1.7%	1.8%
Warren, Worcester County	3.4%	1.5%	3.9%	3.7%	1.9%	4.1%
Webster, Worcester County	3.8%	3.4%	7.3%	7.5%	3.9%	5.6%
West Brookfield, Worcester County	5.3%	2.3%	6.4%	7.0%	3.5%	6.3%
Hampden County	3.5%	2.5%	6.7%	8.1%	3.7%	6.4%
Worcester County	3.2%	1.8%	5.0%	5.2%	2.2%	4.3%
Massachusetts	3.1%	1.8%	4.6%	5.3%	2.2%	4.2%

Source: US Census Bureau 5-year estimates, 2016-2020

## Veterans

Veterans are a population with distinct cultural values and unique health issues. They experience substance use disorders, mental health disorders (including depression, post-traumatic stress disorder and serious mental illnesses), traumatic brain injuries, chronic pain and serious bodily injuries at [disproportionate rates compared to civilians](#). These factors coalesce to produce a complicated set of issues that make it difficult for some veterans to reintegrate successfully into civilian life, exacerbating existing health issues and creating instability in personal and professional lives.

In East Brookfield (8.9%), Holland (8.4%), North Brookfield (11.4%), Wales (10.1%), Warren (10.1%), and West Brookfield (13.2%), the percentage of veterans as a percent of the total population was more than double than the Commonwealth overall (4.1%).

**TABLE 10: VETERANS**

	Number of Veterans	As a Percent of the Total Population
Brimfield, Hampden County	209	5.7%
Brookfield, Worcester County	189	5.5%
Charlton, Worcester County	865	6.5%
Dudley, Worcester County	394	3.3%
East Brookfield, Worcester County	199	8.9%
Holland, Hampden County	218	8.4%
North Brookfield, Worcester County	542	11.4%
Oxford, Worcester County	701	5.3%
Palmer, Hampden County	862	6.9%
Southbridge, Worcester County	1,153	6.5%
Spencer, Worcester County	782	6.5%
Sturbridge, Worcester County	582	5.9%
Wales, Hampden County	185	10.1%
Warren, Worcester County	504	10.1%

Webster, Worcester County	1,292	7.3%
West Brookfield, Worcester County	505	13.2%
Hampden County	23,782	5.1%
Worcester County	41,251	4.8%
Massachusetts	290,648	4.1%

Source: US Census Bureau 5-year estimates, 2016-2020



# SOCIAL DETERMINANTS OF HEALTH

The [social determinants of health](#) are the conditions in which people live, work, learn and play. These conditions influence and define quality of life for many segments of the population in the CHA service area. A dominant theme from key informant interviews and community forums was the tremendous impact that the underlying social determinants, particularly economic insecurity, housing, food insecurity, and transportation have on health status.

## Socioeconomics

Socioeconomic status, as measured by educational attainment, income, employment status, occupation, and the extent to which one lives in areas of economic disadvantage, is closely linked to morbidity, mortality, and overall well-being. Lower-than-average life expectancy is [highly correlated](#) with low-income status.

## Education

Higher levels of educational attainment are associated with improved health outcomes and social development at the individual and community levels. Compared with individuals with more education, people with less education are [more likely](#) to experience worse health, more chronic conditions, and more limitations/disabilities. The health benefits associated with higher education typically include better access to resources, safer and more stable housing, and better engagement with providers. It is important to note that, in many communities, access to educational opportunities vary depending on historical context and resource allocation. Factors associated with low education that affect health outcomes include the inability to navigate the healthcare system, educational disparities in personal health behaviors, and exposure to chronic stress. Poverty, low educational attainment and limited job opportunities are among the top social determinants leading to lower utilization of health care services and poor health outcomes.

Levels of educational attainment varied by community.

**TABLE 11: EDUCATIONAL ATTAINMENT AMONG POPULATION 25+**

	Less Than 9 <sup>th</sup> Grade	Some High School, No Diploma	High School Diploma	Some College, No Degree	Associate's Degree	Bachelor's Degree	Graduate Degree
Brimfield, Hampden County	0.7%	1.7%	26.4%	20.1%	10.5%	28.5%	12.1%
Brookfield, Worcester County	1.1%	5.3%	37.3%	17.7%	10.9%	20.7%	7.0%
Charlton, Worcester County	1.6%	4.5%	30.3%	16.3%	10.2%	22.4%	14.7%
Dudley, Worcester County	2.5%	5.6%	34.9%	19.5%	10.2%	17.8%	9.6%
East Brookfield, Worcester County	0.6%	7.6%	34.5%	21.1%	7.0%	17.4%	11.9%
Holland, Hampden County	1.0%	5.0%	25.5%	24.8%	10.6%	22.1%	10.9%
North Brookfield, Worcester County	1.3%	5.9%	41.7%	20.1%	6.4%	14.2%	10.4%
Oxford, Worcester County	2.1%	4.3%	32.0%	22.0%	10.2%	17.8%	11.7%
Palmer, Hampden County	5.6%	5.7%	32.3%	21.3%	8.8%	19.5%	6.8%
Southbridge, Worcester County	6.2%	9.8%	35.4%	22.9%	9.3%	11.3%	5.3%
Spencer, Worcester County	3.4%	7.2%	39.3%	24.0%	5.3%	11.4%	9.4%
Sturbridge, Worcester County	1.1%	3.9%	24.7%	17.7%	10.2%	22.0%	20.3%
Wales, Hampden County	1.0%	5.2%	33.9%	18.8%	13.7%	15.9%	11.6%

Warren, Worcester County	0.0%	5.0%	33.0%	18.9%	9.9%	25.0%	8.2%
Webster, Worcester County	3.2%	7.4%	33.8%	20.1%	9.6%	18.3%	7.6%
West Brookfield, Worcester County	2.7%	5.1%	29.0%	18.1%	14.5%	23.1%	7.5%
Hampden County	5.5%	8.7%	30.0%	18.7%	9.6%	16.8%	10.7%
Worcester County	3.1%	5.7%	27.4%	17.8%	9.0%	22.0%	15.1%
Massachusetts	4.2%	4.7%	23.5%	15.3%	7.7%	24.5%	20.0%

Source: US Census Bureau 5-year estimates, 2016-2020

**TABLE 12: EARLY CHILDHOOD EDUCATION**

	Number of 3-4 Year Olds Enrolled in School
Brimfield, Hampden County	17
Brookfield, Worcester County	37
Charlton, Worcester County	186
Dudley, Worcester County	22
East Brookfield, Worcester County	21
Holland, Hampden County	14
North Brookfield, Worcester County	26
Oxford, Worcester County	47
Palmer, Hampden County	103
Southbridge, Worcester County	284
Spencer, Worcester County	40
Sturbridge, Worcester County	244
Wales, Hampden County	18
Warren, Worcester County	58
Webster, Worcester County	211
West Brookfield, Worcester County	55
Hampden County	5,224
Worcester County	10,160
Massachusetts	85,432

Source: US Census Bureau 5-year estimates, 2016-2020

## Employment, Income, & Poverty

Interviewees shared that economic insecurity was a concern in the CBSA. Like education, income influences all aspects of an individual's life, including the ability to secure housing, needed goods (e.g., food, clothing), and services (e.g., transportation, health care, childcare). It also affects one's ability to maintain good physical and mental health. Lack of gainful and reliable employment is linked to several barriers to care, including lack of health insurance, inability to pay for health care services and copays, and inability to pay for transportation to enable individuals to receive services. Certain populations



struggle to find and retain employment for a variety of reasons – from mental and physical health issues, to lack of childcare, to transportation issues and other factors.

“I firmly believe that the stagnant wages for decades – in comparison to inflation – and low, low, low minimum wage make people struggle far too much. So much so that they choose to save money by not taking care of their health.” – Community Health Survey respondent

Many of the issues associated with COVID-19 are exacerbated by issues related to socioeconomic status. [Research has shown](#) that test positivity rates and testing delays were higher in low-income municipalities; there is a strong correlation between low socioeconomic status and COVID-19 attributed deaths, and people in low socioeconomic status municipalities were not able to reduce their mobility (e.g., quarantine, work from home, social distance) as much as those in more affluent communities.

Table 11 includes unemployment rates and labor force participation rates. The labor force participation rate is a measure of an economy's active workforce – the sum of all workers who are employed or actively seeking employment divided by the total working age population. Looking across communities in the CHA CBSA, the labor force participation rate is lower than the Commonwealth (67.2%) in all communities except Charlton (67.7%), East Brookfield (70%), Oxford (70.4%), and Wales (76.1%). Unemployment rates are higher than the Commonwealth (5.1%) in approximately half of the CBSA communities.

Table 12 includes median household income, the percent of households with a total income over \$75,000, and the percentage of households receiving public assistance income. Median household income was lower than the Commonwealth (\$84,385) in nearly all communities, with the exceptions of Charlton (\$102,531) and Sturbridge (\$93,175).

**TABLE 13: LABOR FORCE PARTICIPATION AND UNEMPLOYMENT RATES**

	Labor Force Participation	Unemployment Rate
Brimfield, Hampden County	63.3%	6.0%
Brookfield, Worcester County	65.0%	4.0%
Charlton, Worcester County	67.7%	4.7%
Dudley, Worcester County	65.2%	4.9%
East Brookfield, Worcester County	70.0%	5.9%
Holland, Hampden County	67.1%	6.2%
North Brookfield, Worcester County	66.9%	4.5%
Oxford, Worcester County	70.4%	4.3%
Palmer, Hampden County	63.7%	6.3%
Southbridge, Worcester County	64.4%	7.4%
Spencer, Worcester County	63.8%	5.9%
Sturbridge, Worcester County	64.7%	4.6%

Wales, Hampden County	76.1%	4.6%
Warren, Worcester County	70.4%	1.6%
Webster, Worcester County	64.0%	6.6%
West Brookfield, Worcester County	62.0%	4.2%
Hampden County	60.8%	6.2%
Worcester County	66.3%	4.8%
Massachusetts	67.2%	5.1%

Source: US Census Bureau 5-year estimates, 2016-2020

**TABLE 14: MEDIAN HOUSEHOLD INCOME AND PUBLIC ASSISTANCE INCOME**

	Median Household Income	Percent of Households with Income Over \$75,000	Percent of Households with Public Assistance Income
Brimfield, Hampden County	\$75,577	50.2%	5.9%
Brookfield, Worcester County	\$70,610	47.7%	0.7%
Charlton, Worcester County	\$102,531	66.2%	5.2%
Dudley, Worcester County	\$69,659	46.8%	2.1%
East Brookfield, Worcester County	\$75,347	50.3%	2.5%
Holland, Hampden County	\$77,054	51.1%	0.9%
North Brookfield, Worcester County	\$73,208	48.0%	0.5%
Oxford, Worcester County	\$82,500	55.6%	1.6%
Palmer, Hampden County	\$68,694	43.7%	3.0%
Southbridge, Worcester County	\$52,900	35.5%	6.1%
Spencer, Worcester County	\$70,265	46.0%	1.1%
Sturbridge, Worcester County	\$93,175	58.9%	3.2%
Wales, Hampden County	\$74,851	49.7%	3.5%
Warren, Worcester County	\$60,616	46.2%	3.5%
Webster, Worcester County	\$59,844	40.0%	3.0%
West Brookfield, Worcester County	\$75,742	50.6%	0.6%
Hampden County	\$57,623	39.3%	4.3%
Worcester County	\$77,155	51.2%	3.2%
Massachusetts	\$84,385	54.8%	2.8%

Source: US Census Bureau 5-year estimates, 2016-2020

Table 13 includes the percentages of the total population and the percentages of children (under 18) living below the federal poverty level. The percentage of the total population living below the federal poverty level in Southbridge (19.6%) was nearly double than the Commonwealth overall (9.8%). Over a fourth of children in Southbridge live below the federal poverty level (26.6%) compared to 12.2% for the Commonwealth overall.

**TABLE 15: POPULATION LIVING BELOW THE FEDERAL POVERTY LEVEL**

	Percent of Total Population Below Poverty Level	Percent of Children Below Poverty Level
Brimfield, Hampden County	6.2%	5.0%
Brookfield, Worcester County	4.1%	0.0%
Charlton, Worcester County	4.5%	3.3%
Dudley, Worcester County	5.3%	3.1%
East Brookfield, Worcester County	5.5%	7.7%
Holland, Hampden County	7.1%	4.3%
North Brookfield, Worcester County	4.3%	0.0%
Oxford, Worcester County	3.1%	0.5%
Palmer, Hampden County	9.7%	15.2%
Southbridge, Worcester County	19.6%	26.6%
Spencer, Worcester County	7.9%	2.2%
Sturbridge, Worcester County	3.9%	7.0%
Wales, Hampden County	5.9%	7.9%
Warren, Worcester County	10.7%	5.1%
Webster, Worcester County	11.5%	19.1%
West Brookfield, Worcester County	5.9%	0.0%
Hampden County	15.7%	23.3%
Worcester County	9.7%	11.5%
Massachusetts	9.8%	12.2%

Source: US Census Bureau 5-year estimates, 2016-2020

**TABLE 16: LIVING BELOW THE FEDERAL POVERTY LEVEL, BY RACE/ETHNICITY**

	White Alone	Black or African American Alone	Hispanic or Latino (Any Race)	American Indian/Alaska Native Alone	Native Hawaiian and Other Pacific Islander Alone	Asian Alone	Some Other Race Alone	Two or More Races
Brimfield, Hampden County	6.2%	5.5%	25.0%	no data	no data	0.0%	no data	6.8%
Brookfield, Worcester County	3.8%	8.3%	0.0%	no data	no data	0.0%	18.5%	0.0%
Charlton, Worcester County	3.7%	0.0%	18.0%	0.0%	no data	0.0%	0.0%	38.1%
Dudley, Worcester County	5.5%	0.7%	3.4%	no data	no data	6.2%	0.0%	0.5%
East Brookfield, Worcester County	5.7%	0.0%	8.9%	no data	no data	no data	7.4%	0.0%
Holland, Hampden County	6.7%	41.2%	38.6%	0.0%	no data	no data	41.7%	0.0%
North Brookfield, Worcester County	4.3%	3.1%	3.3%	no data	no data	0.0%	0.0%	0.0%



Oxford, Worcester County	2.4%	36.1%	3.6%	no data	no data	0.5%	7.5%	0.0%
Palmer, Hampden County	10.3%	0.0%	9.8%	no data	no data	0.0%	14.9%	5.3%
Southbridge, Worcester County	19.4%	19.3%	31.5%	0.0%	no data	15.4%	20.7%	23.9%
Spencer, Worcester County	7.4%	55.4%	6.6%	no data	no data	0.0%	no data	8.9%
Sturbridge, Worcester County	3.2%	1.9%	6.5%	no data	no data	23.0%	10.8%	2.2%
Wales, Hampden County	5.6%	0.0%	15.4%	100.0%	100.0%	no data	0.0%	0.0%
Warren, Worcester County	11.0%	0.0%	0.0%	no data	no data	0.0%	no data	no data
Webster, Worcester County	8.1%	14.8%	29.4%	0.0%	no data	4.5%	31.6%	33.6%
West Brookfield, Worcester County	5.8%	0.0%	0.0%	23.3%	no data	no data	0.0%	0.0%
Hampden County	13.1%	24.1%	33.5%	24.0%	6.8%	11.9%	32.8%	26.2%
Worcester County	8.5%	14.4%	23.6%	30.5%	5.9%	9.5%	21.2%	17.4%
Massachusetts	7.9%	17.6%	23.0%	23.3%	11.9%	11.8%	22.2%	15.5%

Source: US Census Bureau 5-year estimates, 2016-2020

## Food Insecurity

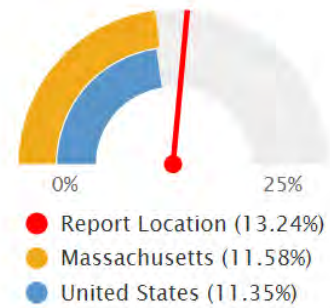
Food insecurity is one of the nation's leading health issues; research has shown that food-insecure children are at least [twice as likely](#) to be in poor or fair health and more likely to have asthma than children who are not food insecure. Food-insecure older adults are [more likely](#) to have depression, asthma, diabetes, and congestive heart failure compared to those who are not.

Food insecurity is inextricably linked to poverty, but is also [more prevalent](#) among single-parent households, Black households, Hispanic/Latinx households, [individuals with disabilities](#), [older adults with chronic conditions](#), and [immigrants](#). Interviewees shared the food insecurity is a concern in the CBSA, including the lack of options for fresh produce and healthy foods. These issues were more acute for low-income individuals and families, homebound older adults, and individuals with disabilities.

“Food insecurity is a big [issue] out here. Walmart has been offering more organic and healthy foods, but it’s hard to find organic fruit and vegetables.” –Community Health Survey respondent

Looking across communities in the community benefits service area, the percentage of residents who receive Supplemental Nutrition Assistance Program (SNAP) benefits was 13.2%, which was higher than the higher than the Commonwealth (11.6%). Percentages were particularly high in Palmer (15.6%), Southbridge (31.3%), Wales (11.8%), Warren (16.1%), and Webster (13.3%). Across the service area, the percentage was Table 16 breaks this out further by race and ethnicity. This indicator is relevant because it assesses vulnerable populations which are more likely to have multiple health access, health status, and social support needs; when combined with poverty data, providers can use this measure to identify gaps in eligibility and enrollment.

Percent Households Receiving SNAP Benefits



**TABLE 17: FOOD INSECURITY**

	Number of Food Insecure Persons	Food Insecurity Rate
Hampden County	50,820	<b>10.9%</b>
Worcester County	67,240	<b>8.2%</b>
Massachusetts	566,930	8.2%

Source: Feeding America 2019

**TABLE 18: SNAP BENEFITS BY RACE/ETHNICITY**

	Overall	White Alone	Black or African American Alone	Hispanic or Latino (Any Race)	American Indian/ Alaska Native Alone	Native Hawaiian and Other	Asian Alone	Some Other Race Alone	Two or More Races
Brimfield, Hampden County	8.2%	8.6%	0.0%	50.0%	no data	no data	0.0%	no data	7.0%
Brookfield, Worcester County	4.4%	4.5%	no data	no data	no data	no data	no data	0.0%	0.0%
Charlton, Worcester County	7.1%	6.9%	0.0%	0.0%	no data	no data	no data	0.0%	26.2%
Dudley, Worcester County	11.4%	11.9%	0.0%	11.3%	no data	no data	0.0%	0.0%	22.2%
East Brookfield, Worcester County	9.7%	9.4%	100.0%	0.0%	no data	no data	no data	no data	0.0%
Holland, Hampden County	5.7%	5.7%	no data	72.0%	no data	no data	no data	0.0%	0.0%
North Brookfield, Worcester County	6.7%	6.8%	0.0%	0.0%	no data	no data	0.0%	0.0%	0.0%
Oxford, Worcester County	8.3%	7.7%	18.4%	0.0%	no data	no data	no data	0.0%	100.0%

Palmer, Hampden County	15.6%	16.8%	3.4%	15.2%	no data	no data	0.0%	0.0%	9.9%
Southbridge, Worcester County	31.3%	28.2%	66.0%	51.9%	100.0%	no data	0.0%	55.4%	19.0%
Spencer, Worcester County	9.0%	8.4%	70.2%	10.5%	no data	no data	0.0%	no data	15.6%
Sturbridge, Worcester County	9.3%	9.3%	0.0%	0.0%	no data	no data	15.5%	0.0%	0.0%
Wales, Hampden County	11.8%	11.4%	0.0%	0.0%	100.0%	0.0%	no data	no data	0.0%
Warren, Worcester County	16.1%	16.4%	no data	0.0%	no data	no data	0.0%	no data	no data
Webster, Worcester County	13.3%	9.3%	32.3%	41.9%	100.0%	no data	13.0%	42.9%	32.7%
West Brookfield, Worcester County	4.7%	4.7%	no data	0.0%	no data	no data	no data	0.0%	0.0%
Hampden County	21.6%	18.2%	30.4%	51.3%	16.9%	0.0%	22.3%	49.3%	42.9%
Worcester County	12.4%	11.0%	20.8%	36.6%	51.7%	27.1%	10.1%	32.9%	23.4%
Massachusetts	11.6%	9.1%	25.6%	32.7%	32.1%	22.9%	10.2%	32.7%	23.0%

Source: US Census Bureau 5-year estimates, 2016-2020

## Built Environment, Transportation & Accessibility

The [built environment](#), and one's ability to navigate their community, has significant influences on health. Whether an individual has access to transportation, walking and biking routes, safe sidewalks, and green space directly affects their ability to work, attend school, receive healthcare and other services, exercise, and more. Furthermore, it is important that these spaces are accessible for all individuals, including those with disabilities.

Nearly all interviewees named transportation as a critical concern in the CHA CBSA – there are very limited options for public transportation, and eligibility requirements restrict the ability of residents to take advantage of the transportation programs that do exist (e.g., MassHealth's PT-1 Nonemergency transportation).

“I work for an elderly healthcare facility. My biggest challenge is finding affordable transportation to get patients to their appointments. If they do not have Medicaid, because for whatever reason they do not qualify, they have to pay out of pocket for transportation, which is very costly and hard to obtain.” – Community Health Survey respondent



Beyond transportation, disparities in access to technology (e.g., Broadband, Wi-Fi, electronic devices) are a concern. COVID-19 brought these disparities to light, as many services (healthcare and otherwise), moved virtual.

**TABLE 19: COMMUTING AMONG THE WORKING POPULATION OVER AGE 16**

	Drive Alone	Carpool	Public Transit	Bike or Walk	Other Transit	Work from Home
Brimfield, Hampden County	83.6%	4.5%	0.0%	0.0%	1.1%	10.8%
Brookfield, Worcester County	91.2%	1.9%	0.1%	0.1%	0.5%	5.8%
Charlton, Worcester County	85.9%	7.6%	0.0%	0.0%	0.6%	5.6%
Dudley, Worcester County	82.3%	6.0%	0.3%	5.1%	1.1%	4.8%
East Brookfield, Worcester County	83.5%	9.3%	0.0%	1.3%	0.0%	5.9%
Holland, Hampden County	84.4%	11.5%	0.0%	0.4%	0.4%	3.3%
North Brookfield, Worcester County	87.1%	5.0%	1.2%	2.2%	0.0%	4.5%
Oxford, Worcester County	84.2%	7.2%	1.1%	0.6%	2.2%	4.8%
Palmer, Hampden County	84.6%	5.7%	0.0%	3.7%	0.3%	5.6%
Southbridge, Worcester County	78.6%	7.2%	0.1%	7.1%	2.0%	4.8%
Spencer, Worcester County	81.1%	6.3%	2.2%	1.2%	0.0%	9.0%
Sturbridge, Worcester County	84.0%	8.0%	0.1%	0.1%	0.4%	7.4%
Wales, Hampden County	87.8%	3.9%	1.0%	2.0%	0.9%	4.4%
Warren, Worcester County	85.7%	8.7%	0.0%	0.0%	0.0%	5.6%
Webster, Worcester County	80.5%	6.4%	0.7%	4.6%	3.0%	5.0%
West Brookfield, Worcester County	72.3%	8.1%	2.3%	3.8%	0.0%	12.0%
Hampden County	81.3%	7.5%	1.9%	2.6%	1.0%	5.5%
Worcester County	77.6%	7.8%	1.9%	3.1%	1.2%	8.0%
Massachusetts	68.0%	7.3%	9.5%	5.6%	1.0%	8.3%

Source: US Census Bureau 5-year estimates, 2016-2020

## Housing & Homelessness

Lack of affordable housing and poor housing conditions contribute to a wide range of health issues, including respiratory diseases, lead poisoning, infectious diseases, and poor mental health. At the extreme are those without housing, including those who are unhoused or living in unstable or transient housing situations. They are more likely to delay medical care and have mortality rates up to four times higher than those who have secure housing.

Adults who are experiencing homelessness or living in unstable situations are more likely to experience mental health issues, substance use, intimate partner violence, and trauma; children in similar situations have difficulty in school and are more likely to exhibit antisocial behavior.

Interviewees and CHA Community Health Survey respondents reinforced that housing is a critical concern in the CBSA, especially for low-income individuals and families in need of safe and affordable options. There are long wait lists for affordable housing units. While there may not be a large population of traditionally “homeless” or unhoused individuals in the CBSA, the number of individuals and families couch surfing or doubling- and tripling-up to save money is on the rise.

“Housing is a major issue. A lot of people in the area have been on housing wait lists for many years. In the meantime they stay with family or friends, which isn’t always a healthy environment. But I have no resources for people besides a list of shelters.” –CHA interviewee

**TABLE 20: COST BURDENED HOUSEHOLDS**

	<b>Cost-Burdened Households (at least 30% of income spent on housing costs)</b>	<b>Severely Cost-Burdened <u>Owner</u> Households (at least 50% of income spent on mortgage)</b>	<b>Severely Cost-Burdened <u>Renter</u> Households (at least 50% of income spent on rent)</b>
Brimfield, Hampden County	31.9%	11.7%	21.7%
Brookfield, Worcester County	31.4%	12.4%	12.2%
Charlton, Worcester County	17.8%	4.7%	14.1%
Dudley, Worcester County	31.2%	11.1%	20.7%
East Brookfield, Worcester County	25.1%	6.5%	18.0%
Holland, Hampden County	26.9%	11.7%	8.2%
North Brookfield, Worcester County	25.7%	4.2%	14.0%
Oxford, Worcester County	31.6%	9.4%	22.0%
Palmer, Hampden County	28.3%	11.2%	15.4%
Southbridge, Worcester County	39.0%	10.9%	22.8%
Spencer, Worcester County	25.2%	5.1%	22.7%
Sturbridge, Worcester County	31.8%	11.3%	11.8%
Wales, Hampden County	20.0%	10.8%	13.9%
Warren, Worcester County	28.3%	14.6%	20.0%
Webster, Worcester County	36.8%	10.2%	19.8%
West Brookfield, Worcester County	32.1%	3.0%	30.2%
Hampden County	34.5%	9.8%	24.7%
Worcester County	31.0%	9.0%	21.2%
Massachusetts	33.7%	10.5%	22.9%

Source: US Census Bureau 5-year estimates, 2016-2020

## Health Insurance and Navigation

Whether an individual has health insurance – and the extent to which it helps pay for needed acute services and access to a full continuum of high-quality, timely, and accessible preventive and disease management or follow-up services – has been [shown](#) to be critical to overall health and well-being. Access to a usual source of primary care is particularly important, since it greatly affects the individual’s ability to receive regular preventive, routine, and urgent care and to manage chronic diseases.

Massachusetts has the highest health insurance coverage rate in the U.S., but there are still pockets of individuals without coverage, including young adults, low-income individuals, and the undocumented. Interviewees and CHA Community Health Survey respondents identified issues around navigating the health system, including how to access health insurance, as a major barrier to care. Table 19 includes the percentage of the population that is uninsured in each CHA CBSA community; rates are higher than the Commonwealth (2.7%) in Brimfield (4%), Brookfield (4.4%), Palmer (3%), Southbridge (2.8%), Spencer (4%), Wales (3.2%), and West Brookfield (3.3%).

**TABLE 21: UNINSURED**

	Percent of Noninstitutionalized Population that is Uninsured
Brimfield, Hampden County	4.0%
Brookfield, Worcester County	4.4%
Charlton, Worcester County	1.0%
Dudley, Worcester County	2.6%
East Brookfield, Worcester County	0.9%
Holland, Hampden County	2.9%
North Brookfield, Worcester County	1.8%
Oxford, Worcester County	1.8%
Palmer, Hampden County	3.0%
Southbridge, Worcester County	2.8%
Spencer, Worcester County	4.0%
Sturbridge, Worcester County	1.7%
Wales, Hampden County	3.2%
Warren, Worcester County	1.0%
Webster, Worcester County	2.0%
West Brookfield, Worcester County	3.3%
Hampden County	2.3%
Worcester County	3.0%
Massachusetts	2.7%

Source: US Census Bureau 5-year estimates, 2016-2020

# HEALTH RISKS, BEHAVIORS, AND OUTCOMES



## Health Risk Factors

As discussed in the section on food insecurity, one's ability to access nutritious food has significant impacts on health. In addition to access to grocery stores, research shows that there are a number of factors that influence healthy eating, including quality and price of fruits and vegetables, marketing of unhealthy food, and cultural appropriateness of food offerings. It is also important that individuals understand the basics of nutrition - which foods are nutrient-dense, calorie goals, macronutrients, etc.

Lack of physical fitness and poor nutrition are among the leading risk factors associated with obesity and chronic health issues. Both factors help to prevent disease and are essential for the healthy growth and development of children and adolescents, while overall fitness and the extent to which people are physically active reduce the risk for many chronic conditions and are linked to good emotional health. Over the past two decades, obesity rates in the United States have doubled for adults and tripled for children. Overall, these trends have affected all segments of the population, regardless of age, sex, race, ethnicity, education, income, or geographic region.

The percentage of the adult population that is obese is higher than the Commonwealth (26%) in all communities in the CHA CBSA, with Southbridge having the highest percentage (35.5%).

**TABLE 22: OBESITY**

	Percent of Adult Population that is Obese
Brimfield, Hampden County	27.3%
Brookfield, Worcester County	32.4%
Charlton, Worcester County	30.5%
Dudley, Worcester County	30.0%
East Brookfield, Worcester County	30.8%
Holland, Hampden County	27.3%
North Brookfield, Worcester County	31.3%
Oxford, Worcester County	32.0%
Palmer, Hampden County	27.6%
Southbridge, Worcester County	35.5%
Spencer, Worcester County	32.4%
Sturbridge, Worcester County	30.4%
Wales, Hampden County	27.3%
Warren, Worcester County	32.5%
Webster, Worcester County	32.2%
West Brookfield, Worcester County	31.1%
Hampden County	29.5%
Worcester County	31.4%
Massachusetts	26.0%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

The table below includes estimated expenditures for fruits/vegetables and soda purchased for in-home consumption, as a percentage of total food-at-home expenditures. This indicator is relevant because current behaviors are determinants of future health, and because unhealthy eating habits may illustrate a cause of significant health issues, such as obesity and diabetes.

**TABLE 23: FRUIT AND VEGETABLE EXPENDITURES**

	Fruits and vegetables as a percentage of food-at-Home Expenditures	Soda as a percentage of Food-At-Home Expenditures
Hampden County	13.07%	3.50%
Worcester County	No data	No data
Massachusetts	13.10%	3.35%
United States	12.68%	4.02%

Source: Nielsen Site Reports. 2014.

Table 22 includes the percentage of adults over 18 that report no leisure-time physical activity. The percentages were higher in both Hampden County (32%) and Worcester County (27%) compared to the Commonwealth overall. The table also includes the percentage of the population with adequate access to locations for physical activity; the percentage is higher in Hampden County compared to the Commonwealth.

**TABLE 24: PHYSICAL ACTIVITY**

	Physical inactivity*	Access to exercise opportunities**
Hampden County	32%	90%
Worcester County	27%	85%
Massachusetts	26%	89%

Sources: \*2019 Behavioral Risk Factor Surveillance System; \*\*2021 Business Analyst, ESRI, YMCA Tigerline Files

## Life Expectancy and Overall Mortality

The table below shows the average life expectancy at birth. Life expectancy measures the average number of years from birth a person can expect to live, according to the current mortality experience (age-specific death rates) of the population. Hampden County has the second lowest life expectancy among all Massachusetts counties.

Life expectancy was higher than the Commonwealth (80.6) in Brimfield (81.3), Charlton (80.8), East Brookfield (84.4), Holland (82.3), Sturbridge (81.8), and Wales (82.3).

**TABLE 25: LIFE EXPECTANCY**

	Life Expectancy in Years
Brimfield, Hampden County	81.3

Brookfield, Worcester County	79.9
Charlton, Worcester County	80.8
Dudley, Worcester County	79.5
East Brookfield, Worcester County	84.4
Holland, Hampden County	82.3
North Brookfield, Worcester County	80.5
Oxford, Worcester County	78.8
Palmer, Hampden County	78.3
Southbridge, Worcester County	79.3
Spencer, Worcester County	78.6
Sturbridge, Worcester County	81.8
Wales, Hampden County	82.3
Warren, Worcester County	78.2
Webster, Worcester County	77.0
West Brookfield, Worcester County	80.4
Hampden County	78.7
Worcester County	79.9
Massachusetts	80.6

Source: Centers for Disease Control and Prevention and the National Center for Health Statistics, U.S. Small-Area Life Expectancy Estimates Project. 2015.

## Mental/Behavioral Health

Mental health—including depression, anxiety, stress, trauma, and other conditions—was cited as the leading health issue for residents in the CHA service area. Individuals from across organizations and sectors discussed:

- The significant burden of stress and anxiety, especially as it relates to socioeconomic status (e.g., poverty, income, cost of living)
- The long-term mental health impacts and fatigue associated with marginalization and disenfranchisement in nearly all facets of life (for people of color, non-English speakers, individuals with disabilities, low income, individuals with mental health and SUD)
- The prevalence of mild to moderate depression across all nearly all segments of the population, from children to older adults
- The impact of adverse childhood experiences (e.g., abuse, witness to domestic violence, parents/caregivers with mental health issues or substance use disorder)

While these issues have been prevalent for many years, they were exacerbated by COVID-19. A critical concern is the lack of mental health treatment and support services across the spectrum of behavioral health services, including inpatient treatment, psychiatrists, age-specific specialists, providers that speak languages other than English, social workers, and counselors. In the CHA survey, mental illness or depression was identified as the leading health concern for the population overall, and better access to mental health services was the most common response to the question about what was most needed to improve the health of respondents’ families and neighbors.

“Child psychiatrists and psychologists are needed in this area, especially ones that take MassHealth. There are no peer groups for those that have special needs, or group mental health sessions.”—

CHA Community Health Survey respondent

The percentage of adults with poor mental health was higher than the Commonwealth overall (14.0%) in most communities, with the exceptions of Charlton (13.3%), East Brookfield (13.4%), Sturbridge (12.4%), and West Brookfield (13.3%).

**TABLE 26: POOR MENTAL HEALTH**

	Percent of Adults with Poor Mental Health
Brimfield, Hampden County	14.0%
Brookfield, Worcester County	14.2%
Charlton, Worcester County	13.3%
Dudley, Worcester County	14.3%
East Brookfield, Worcester County	13.4%
Holland, Hampden County	14.7%
North Brookfield, Worcester County	14.3%
Oxford, Worcester County	14.5%
Palmer, Hampden County	15.7%
Southbridge, Worcester County	16.9%
Spencer, Worcester County	15.2%
Sturbridge, Worcester County	12.4%
Wales, Hampden County	14.7%
Warren, Worcester County	15.1%
Webster, Worcester County	15.1%
West Brookfield, Worcester County	13.3%
Hampden County	15.0%
Worcester County	13.3%
Massachusetts	14.0%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

## Substance Use Disorder

In addition to mental health, substance use was identified as an issue of concern. Interviewees reinforced the co-morbidity that often occurs between mental health and substance use issues and identified a need for more services that treat both conditions simultaneously.



“The lack of mental health services that combines mental health and substance use/abuse in this area is appalling. Having to travel from Monson to Boston for an available bed should never happen.” — Community Health Survey respondent

As evidenced by the data below, the opioid crisis persists and has effects not only on individuals but families and communities.

“I and many friends in the construction trades have addictions. [We are] in constant pain and have mental health issues [but] are afraid of helping ourselves for fear of the stigma, or just plain embarrassed. Maybe doctors or nurses could visit job sites – casual like – to get the lay of the land. I reckon it may be a start.” – Community Health Survey respondent

**TABLE 27: NUMBER OF CONFIRMED OPIOID RELATED DEATHS BY CITY/TOWN OF RESIDENCE FOR THE DECEDENT**

Community	Number of overdose deaths
Brimfield, Hampden County	1
Brookfield, Worcester County	1
Charlton, Worcester County	0
Dudley, Worcester County	5
East Brookfield, Worcester County	1
Holland, Hampden County	1
North Brookfield, Worcester County	1
Oxford, Worcester County	6
Palmer, Hampden County	4
Southbridge, Worcester County	11
Spencer, Worcester County	4
Sturbridge, Worcester County	1
Wales, Hampden County	2
Warren, Worcester County	2
Webster, Worcester County	5
West Brookfield, Worcester County	1
Hampden County	211
Worcester County	282
Massachusetts	2,290

Source: Massachusetts Department of Public Health, 2021

There continues to be concerns around alcohol use and changing community norms around marijuana. Additionally, though there was limited discussion regarding tobacco, Hampden County has one of the highest percentages of adult smokers in the Commonwealth (17%).

**TABLE 28: BINGE DRINKING**

	Percent of Adults Who Occasionally Binge Drink
Brimfield, Hampden County	19.4%
Brookfield, Worcester County	19.6%
Charlton, Worcester County	21.3%
Dudley, Worcester County	22.3%
East Brookfield, Worcester County	21.1%
Holland, Hampden County	20.9%
North Brookfield, Worcester County	20.7%
Oxford, Worcester County	20.8%
Palmer, Hampden County	19.5%
Southbridge, Worcester County	18.1%
Spencer, Worcester County	20.3%
Sturbridge, Worcester County	20.0%
Wales, Hampden County	20.9%
Warren, Worcester County	20.3%
Webster, Worcester County	19.5%
West Brookfield, Worcester County	18.3%
Hampden County	17.7%
Worcester County	19.3%
Massachusetts	20.2%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

**TABLE 29: SMOKING**

	Percent of Adults Who Regularly Smoke
Brimfield, Hampden County	17.7%
Brookfield, Worcester County	17.1%
Charlton, Worcester County	15.0%
Dudley, Worcester County	15.4%
East Brookfield, Worcester County	15.5%
Holland, Hampden County	18.8%
North Brookfield, Worcester County	16.7%
Oxford, Worcester County	17.0%
Palmer, Hampden County	19.7%
Southbridge, Worcester County	19.9%
Spencer, Worcester County	18.4%
Sturbridge, Worcester County	13.9%
Wales, Hampden County	18.8%
Warren, Worcester County	17.7%

Webster, Worcester County	17.6%
West Brookfield, Worcester County	15.6%
Hampden County	17.4%
Worcester County	14.5%
Massachusetts	14.9%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

## Cardiovascular Disease & Stroke

Cardiovascular and cerebrovascular diseases, such as heart disease and stroke, are affected by several health and behavioral risk factors, including obesity and physical inactivity, tobacco use, and alcohol use. Hypertension, or high blood pressure, increases the risk of more serious health issues, including heart failure, stroke, and other forms of major cardiovascular disease.

Nationally, rates of high blood pressure and heart disease vary by race and ethnicity.

- [High blood pressure](#) is more common among non-Hispanic Black adults (54%) than white adults (46%), non-Hispanic Asian adults (39%), or Hispanic adults (36%)
- [Age-adjusted death rates](#) for heart disease are highest among non-Hispanic Black adults (208 per 100,000) compared to white (168.9), Hispanic (114.1) and Asian/Pacific Islander (85.5) adults

The table below includes the percentage of adults age 18 who report ever having been told by a doctor, nurse, or other health professional that they have high blood pressure. Women who were told high blood pressure only during pregnancy and those who were told they had borderline hypertension were not included. It also includes the percentage of adults age 18 or older who report ever having been told by a doctor, nurse, or other health professional that they had angina or coronary heart disease. The percentages for both Hampden County and Worcester County were higher than the Commonwealth overall; among municipalities, percentages were highest in West Brookfield and Southbridge.

**TABLE 30: CARDIOVASCULAR DISEASE**

	Percent of Adults With High Blood Pressure	Percent of Adults Ever Diagnosed with Heart Disease
Brimfield, Hampden County	30.9%	6.0%
Brookfield, Worcester County	31.5%	6.5%
Charlton, Worcester County	27.5%	5.1%
Dudley, Worcester County	26.4%	5.1%
East Brookfield, Worcester County	28.6%	5.6%
Holland, Hampden County	29.2%	5.5%
North Brookfield, Worcester County	29.2%	5.8%
Oxford, Worcester County	28.7%	5.6%
Palmer, Hampden County	31.0%	6.4%
Southbridge, Worcester County	31.8%	7.2%
Spencer, Worcester County	30.4%	6.3%

Sturbridge, Worcester County	28.9%	5.6%
Wales, Hampden County	29.2%	5.5%
Warren, Worcester County	29.6%	6.0%
Webster, Worcester County	30.8%	6.6%
West Brookfield, Worcester County	32.9%	7.0%
Hampden County	30.8%	6.4%
Worcester County	29.1%	5.8%
Massachusetts	27.6%	5.5%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

The percentage of adults who have ever had a stroke was higher than Hampden County, Worcester County, and the Commonwealth in Southbridge (3.6%) and West Brookfield (3.4%).

**TABLE 31: STROKE**

	Percent of Adults Who Have Ever Had a Stroke
Brimfield, Hampden County	3.0%
Brookfield, Worcester County	3.1%
Charlton, Worcester County	2.5%
Dudley, Worcester County	2.5%
East Brookfield, Worcester County	2.7%
Holland, Hampden County	2.8%
North Brookfield, Worcester County	2.8%
Oxford, Worcester County	2.8%
Palmer, Hampden County	3.3%
Southbridge, Worcester County	3.6%
Spencer, Worcester County	3.1%
Sturbridge, Worcester County	2.6%
Wales, Hampden County	2.8%
Warren, Worcester County	2.9%
Webster, Worcester County	3.2%
West Brookfield, Worcester County	3.4%
Hampden County	3.3%
Worcester County	2.8%
Massachusetts	2.8%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

## Cancer

The most common risk factors for cancer are well known: age, family history of cancer, alcohol and tobacco use, diet, exposure to cancer-causing substances, chronic inflammation, and hormones.



Nationally, cancer incidence and mortality rates continue to decline, as recommendations and requirements around screening and preventative care are implemented. However, [certain segments](#) of the population are at an increased risk of illness or death from particular cancer types:

- Black/African Americans have higher cancer mortality rates than other racial and ethnic groups for most types of cancer. Black/African American women are also at an increased risk of mortality from breast cancer, despite comparable incidence rates to white women
- Hispanic/Latinx and Black/African American women have higher incidence of cervical cancer compared to other racial and ethnic groups
- American Indian/Alaska Natives have high mortality rates related to kidney cancer, and the highest incidence of liver and bile duct cancer
- Lesbian, gay, and bisexual youth are more likely to drink and use alcohol than heterosexual youth, putting them at increased risk for certain cancer types

Cancer screening rates are lower in Hampden County compared to the Commonwealth overall, and similar to the Commonwealth in Worcester County.

**TABLE 32: CANCER SCREENINGS**

	Percent of Women Age 50 to 74 Getting Screened for Breast Cancer (mammogram)	Percent of Women age 21 to 65 Getting Screened for Ovarian Cancer (pap smears)	Percent of Adults Age 50 to 75 Getting Screened for Colon Cancer (FOBT, sigmoidoscopy, colonoscopy)
Brimfield, Hampden County	82.6%	87.3%	70.2%
Brookfield, Worcester County	81.2%	88.7%	69.8%
Charlton, Worcester County	82.6%	89.7%	69.9%
Dudley, Worcester County	82.2%	88.5%	69.8%
East Brookfield, Worcester County	82.0%	89.1%	70.5%
Holland, Hampden County	82.7%	86.0%	68.6%
North Brookfield, Worcester County	81.7%	88.2%	68.5%
Oxford, Worcester County	82.0%	88.7%	68.3%
Palmer, Hampden County	82.0%	84.9%	66.9%
Southbridge, Worcester County	81.2%	85.0%	62.5%
Spencer, Worcester County	81.6%	87.6%	68.0%
Sturbridge, Worcester County	83.0%	89.8%	71.6%
Wales, Hampden County	82.7%	86.0%	68.6%
Warren, Worcester County	81.7%	88.1%	68.3%
Webster, Worcester County	81.4%	87.2%	66.9%
West Brookfield, Worcester County	82.2%	88.7%	70.6%
Hampden County	79.0%	83.2%	66.4%
Worcester County	80.6%	87.4%	69.4%
Massachusetts	81.8%	86.3%	69.2%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2018.

## Diabetes and Asthma

Over the course of a lifetime, approximately 40% of adults in the U.S. are expected to develop type 2 diabetes – this number increases to over 50% for Hispanic men and women. Several factors increase the risk of developing type 2 diabetes, including being overweight, physical inactivity, age, and family history. Having diabetes increases the risk of cardiovascular comorbidities (e.g., hypertension, atherosclerosis), may limit the ability to engage in physical activity, and may have negative impacts on metabolism.

The percentage of adult with diabetes is higher in Hampden County (10.7%) and Worcester County (9.0%) compared to the Commonwealth overall (8.2%). The percentage was particularly high in Southbridge (10.8%).

**TABLE 33: ADULTS WITH DIABETES**

	Percent of Adults Who Have Diabetes
Brimfield, Hampden County	8.5%
Brookfield, Worcester County	9.0%
Charlton, Worcester County	7.2%
Dudley, Worcester County	7.1%
East Brookfield, Worcester County	7.8%
Holland, Hampden County	8.0%
North Brookfield, Worcester County	8.1%
Oxford, Worcester County	8.0%
Palmer, Hampden County	8.8%
Southbridge, Worcester County	10.8%
Spencer, Worcester County	8.8%
Sturbridge, Worcester County	7.9%
Wales, Hampden County	8.0%
Warren, Worcester County	8.4%
Webster, Worcester County	9.0%
West Brookfield, Worcester County	9.4%
Hampden County	10.7%
Worcester County	9.0%
Massachusetts	8.2%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

Respiratory diseases such as asthma and COPD are exacerbated by behavioral, environmental, and location-based risk factors, including smoking, diet and nutrition, substandard housing, and environmental exposures (e.g., air pollution, secondhand smoke). They are the third leading cause of death in the United States. In many scenarios, quality of life for those with respiratory diseases can improve with proper care and management.

The percentage of adults in Hampden County (10.6%) and Worcester County (10.4%) with asthma was slightly higher than the Commonwealth overall (10.2%). Percentages were particularly high in Oxford (11%), Palmer (11%), Southbridge (11.7%), Spencer (11.2%), Warren (11.2%), and Webster (11.2%).

**TABLE 34: ADULTS WITH ASTHMA**

	Percent of Adults Who Have Asthma
Brimfield, Hampden County	10.5%
Brookfield, Worcester County	10.9%
Charlton, Worcester County	10.6%
Dudley, Worcester County	10.8%
East Brookfield, Worcester County	10.6%
Holland, Hampden County	10.6%
North Brookfield, Worcester County	10.9%
Oxford, Worcester County	11.0%
Palmer, Hampden County	11.0%
Southbridge, Worcester County	11.7%
Spencer, Worcester County	11.2%
Sturbridge, Worcester County	10.3%
Wales, Hampden County	10.6%
Warren, Worcester County	11.2%
Webster, Worcester County	11.2%
West Brookfield, Worcester County	10.7%
Hampden County	10.6%
Worcester County	10.4%
Massachusetts	10.2%

Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2019.

## Maternal & Infant Health

Maternal and child health issues are of critical importance to the overall health and well-being of a geographic region and at the core of what it means to have a healthy, vibrant community. Infant mortality, childhood immunization, rates of teen pregnancy, rates of low birthweight and rates of early and appropriate prenatal care for pregnant women are among the most critical indicators of maternal and child health.

**TABLE 35: BIRTH OUTCOMES**

	Low birthweight births (#)	Preterm births (#)	Births among 15-19 year olds (#)
Brimfield, Hampden County	6	0	0
Brookfield, Worcester County	0	0	0
Charlton, Worcester County	8	8	0
Dudley, Worcester County	7	11	0
East Brookfield, Worcester County	0	0	0
Holland, Hampden County	9	6	0
North Brookfield, Worcester County	0	0	0
Oxford, Worcester County	17	18	0
Palmer, Hampden County	0	5	0
Southbridge, Worcester County	17	23	8
Spencer, Worcester County	12	15	0
Sturbridge, Worcester County	6	5	0
Wales, Hampden County	0	0	0
Warren, Worcester County	0	0	0
Webster, Worcester County	12	19	8
West Brookfield, Worcester County	0	0	0

Source: Massachusetts Birth Reports, 2019

## Infectious Disease & Sexual Health

Though great strides have been made to control the spread of infectious diseases in the U.S., they remain a major cause of illness, disability, and even death - as evidenced by the COVID-19 pandemic. Sexually transmitted infections, diseases transmitted through drug use, vector-borne illnesses, tuberculosis, pneumonia, and influenza are among the infectious diseases that have the greatest impact on modern American populations. Older adults, immunocompromised individuals, injection drug users, and individuals who have unprotected sex are often at the greatest risk for contracting infectious diseases.

Hampden County has the second highest HIV prevalence rate and the second highest rate of newly diagnosed chlamydia cases of all counties in the Commonwealth.

**TABLE 36: INFECTIOUS DISEASE**

	HIV prevalence per 100,000 population	Newly diagnosed chlamydia cases per 100,000 population
Hampden County	501	617.7
Worcester County	283	362.3
Massachusetts	355	458.8

Source: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention 2019



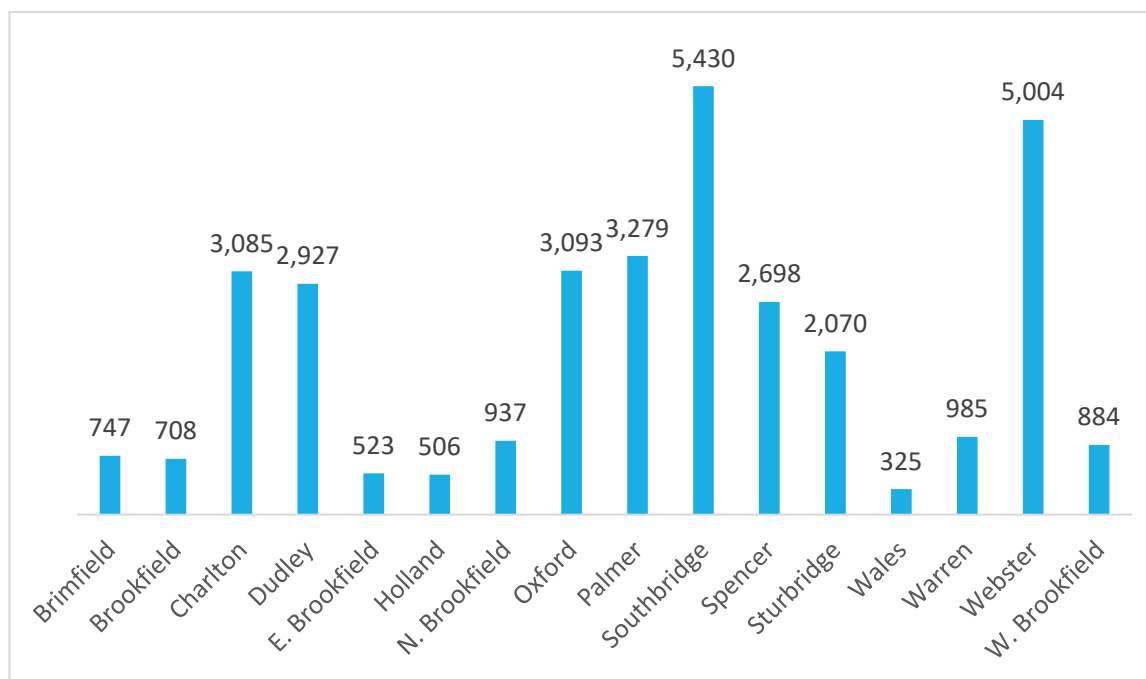
## COVID-19

On March 11, 2020, the World Health Organization (WHO) declared the novel coronavirus (COVID-19) a global pandemic and advised the public to reduce activities and practice social distancing. Since then, the world has continued to adapt to new research, procedures, and policies.

COVID-19 presented monumental challenges for individuals, communities, local public health systems, health care providers, and society. The Centers for Disease Control and Prevention (CDC) [reports](#) that risk of severe illness and death from COVID-19 increases with age; more than 80% of COVID-19 related deaths have been in people over the age of 65. People with chronic and complex medical conditions - including those with cancer, respiratory diseases, neurological conditions (e.g., dementia and Alzheimer's), diabetes, and those who are immunocompromised - are also at an increased risk of illness and death. COVID-19 also illuminated long-standing health and social inequities; [research has shown](#) that many of those in racial and ethnic minority groups are at an increased risk of illness and death from COVID-19.

People with disabilities have also been [disproportionately affected](#), as they are more likely than those without disabilities to have a chronic health condition, live in congregate settings, and face barriers to healthcare. These populations continue to face systemic barriers to care, which often center around the social determinants of health - defined as the conditions in which individuals live, learn, work, play, and worship.

**FIGURE 9: TOTAL COVID-19 CASE COUNTS THROUGH JULY 23, 2022**



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

## Oral Health

Poor oral health not only causes pain and discomfort, but also contributes to various diseases and conditions—including cardiovascular disease, diabetes, infectious disease and Alzheimer’s disease. Maintaining good oral health is especially important for children, as untreated dental conditions may lead to issues with development related to speech, eating and learning.

The percentage of adults who had a dental visit in the last year was higher than the Commonwealth overall (72.3%) in nearly all communities, with the exceptions of Palmer (71%), Southbridge (64.1%), Spencer (71.8%), and Webster (70.4%).

**TABLE 37: ROUTINE DENTAL CARE**

	Percent of Adults Who had a Dental Visit in Previous Year
Brimfield, Hampden County	75.7%
Brookfield, Worcester County	74.2%
Charlton, Worcester County	77.4%
Dudley, Worcester County	75.4%
East Brookfield, Worcester County	75.6%
Holland, Hampden County	73.2%
North Brookfield, Worcester County	73.2%
Oxford, Worcester County	74.1%
Palmer, Hampden County	71.0%
Southbridge, Worcester County	64.1%
Spencer, Worcester County	71.8%
Sturbridge, Worcester County	77.7%
Wales, Hampden County	73.2%
Warren, Worcester County	73.8%
Webster, Worcester County	70.4%
West Brookfield, Worcester County	75.7%
Hampden County	67.2%
Worcester County	73.1%
Massachusetts	72.3%

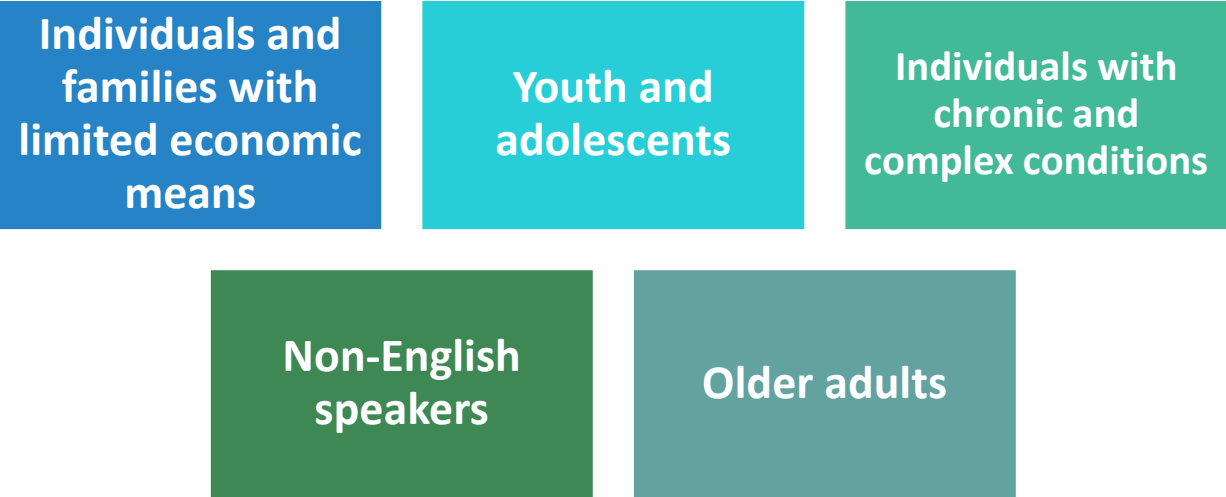
Source: Centers for Disease Control and Prevention (CDC). Robert Wood Johnson Foundation (RWJF). CDC Foundation (CDCF). Population Level Analysis and Community Estimates (PLACES). 2018.

# CHA PRIORITIES

The following is a summary of the population segments and community health issues that were prioritized by interviewees and CHA Survey respondents. This prioritization also draws heavily on the quantitative data collected for this assessment, and the strength and momentum of existing community health efforts.

### Priority Populations

The hospital, working in collaboration with other health and social service stakeholders throughout the region, are committed to improving the health status and well-being of all residents in the service area. This report includes findings that are relevant to all residents, however, there are segments of the population face significant barriers to care and experience adverse social determinants of health. that can put them at an increased risk for morbidity and mortality. The assessment identified the following cohorts as priority populations:

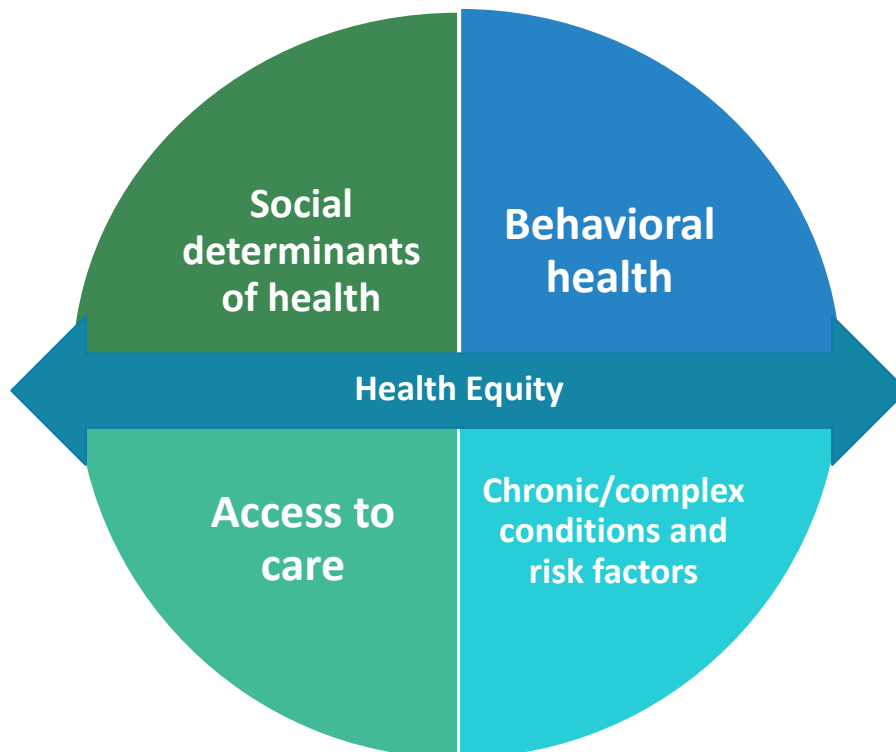


## Priority Areas and Cross Cutting Issues

The CHA aims to identify the full range of community health issues affecting the region, across all its demographic and socioeconomic segments. The assessment is framed broadly to ensure that the breadth of unmet needs and community health issues are recognized. However, it is critical that the CHA identify leading community health issues based on the full range of data collected throughout the CHA process.

With this in mind, the leading community health issues were grouped into five priority areas:

- **Social determinants of health, including:** economic insecurity, transportation, housing, food insecurity, cultural and linguistic barriers
- **Behavioral health (mental health and substance use), including:** depression, stress, anxiety, trauma, social isolation, serious mental illness, interpersonal violence; opioids, alcohol, tobacco, and marijuana use
- **Access to care, including:** affordability, access to primary care and behavioral health care, culturally and linguistically appropriate care
- **Chronic/complex conditions and their risk factors, including:** heart disease and stroke, obesity, cancer, diabetes, and neurological conditions (e.g., Alzheimer's, dementia)
- **Health equity:** a cross-cutting priority that affects barriers to care, health outcomes, and health disparities in each of the other priority areas





# ATTACHMENT A: Community Health Survey

# **Community Health Assessment Community Health Survey 2022**

Wednesday, August 10, 2022

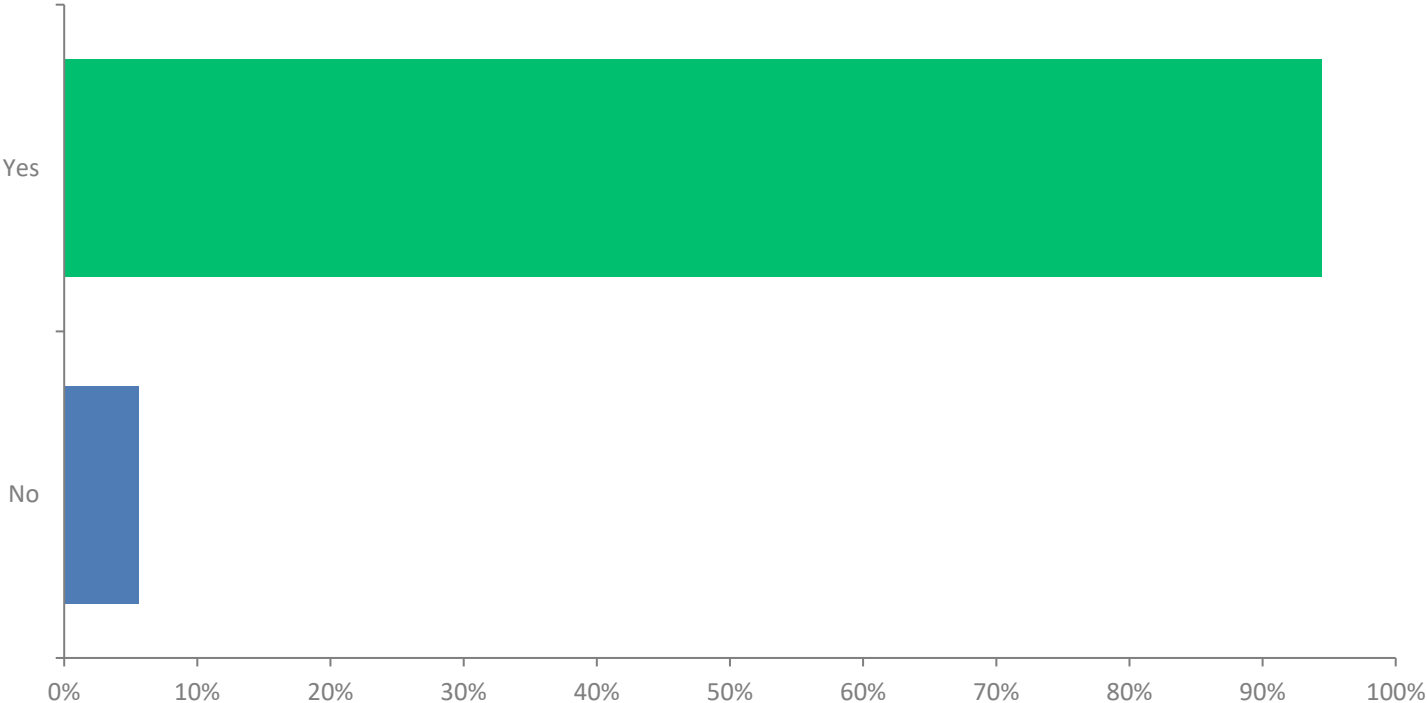
**1892**

Total Responses

Date Created: Tuesday, June 14, 2022

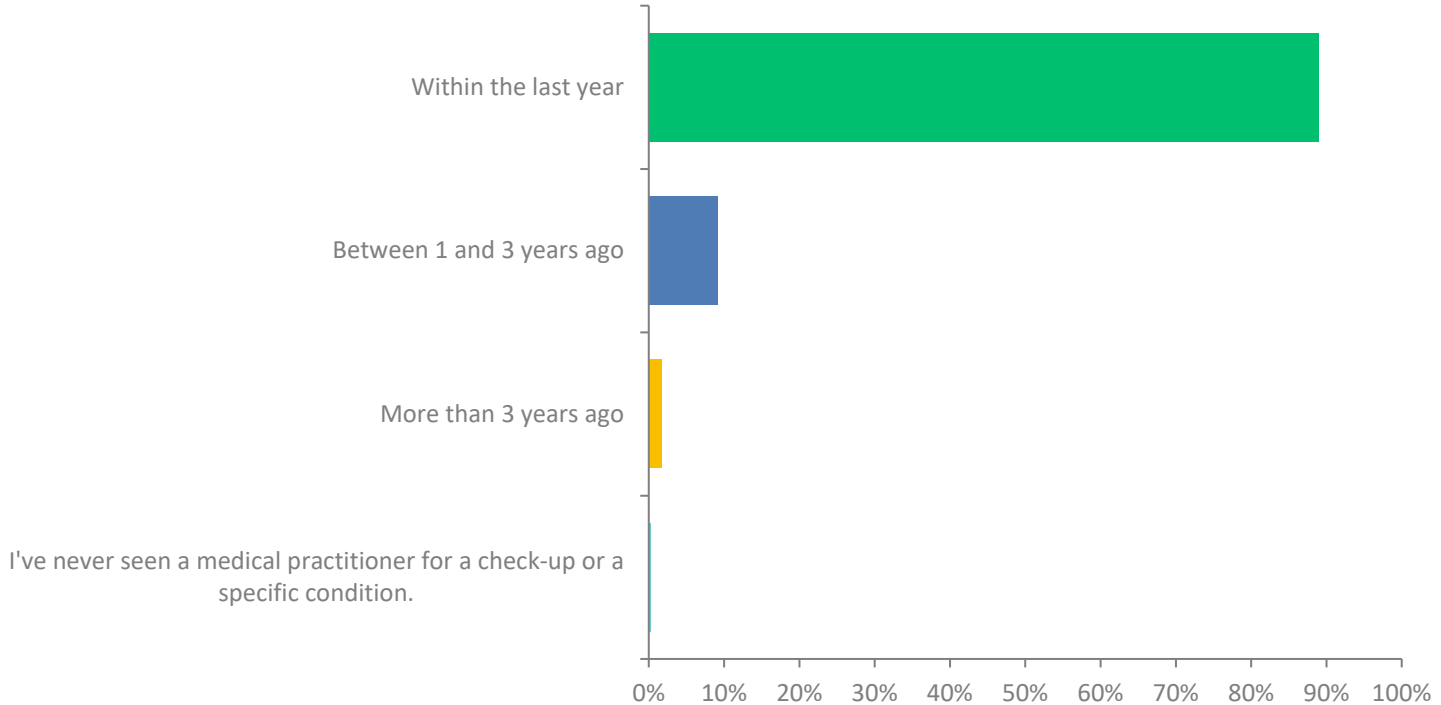
### Q3: Do you have a regular medical practitioner (doctor, nurse, physician assistant) that you see for check-ups and medical problems?

Answered: 1892



## Q4: When was the last time you saw a regular medical practitioner, either for a regular check-up or a specific health condition?

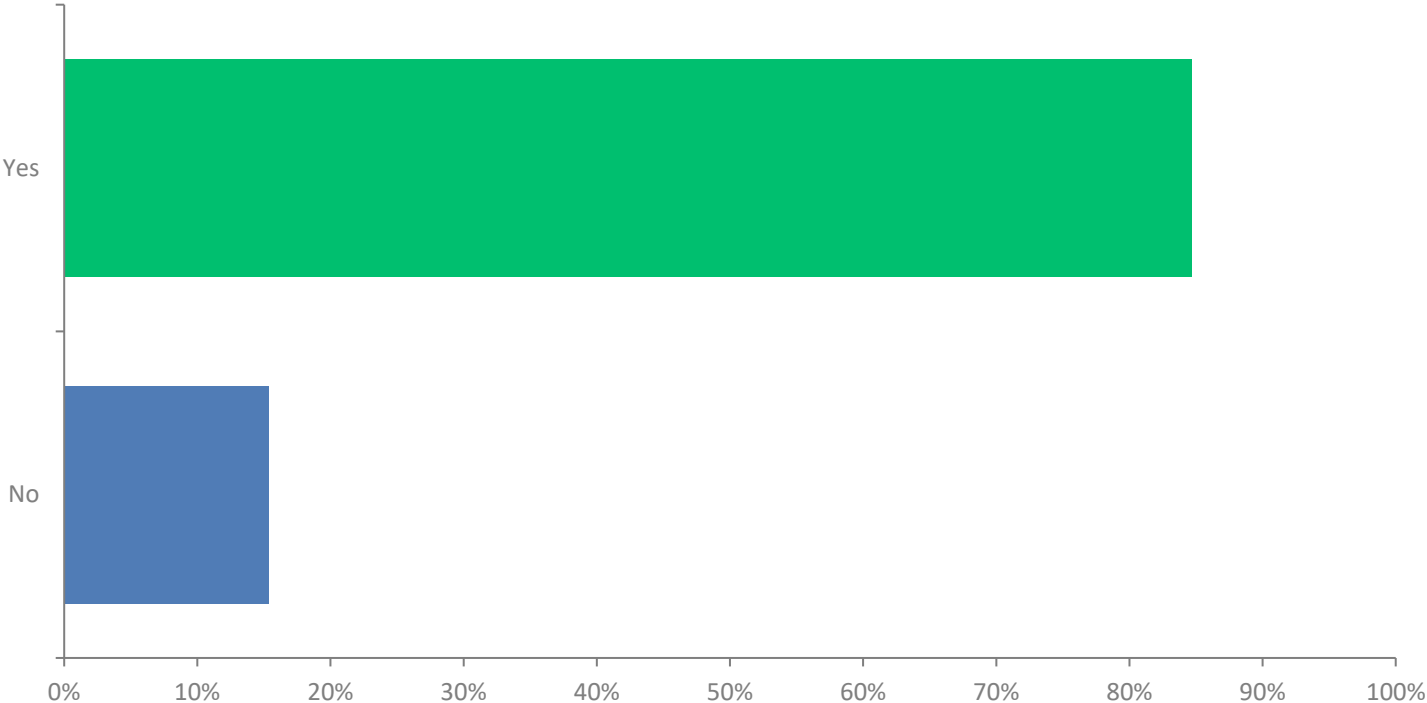
Answered: 1892





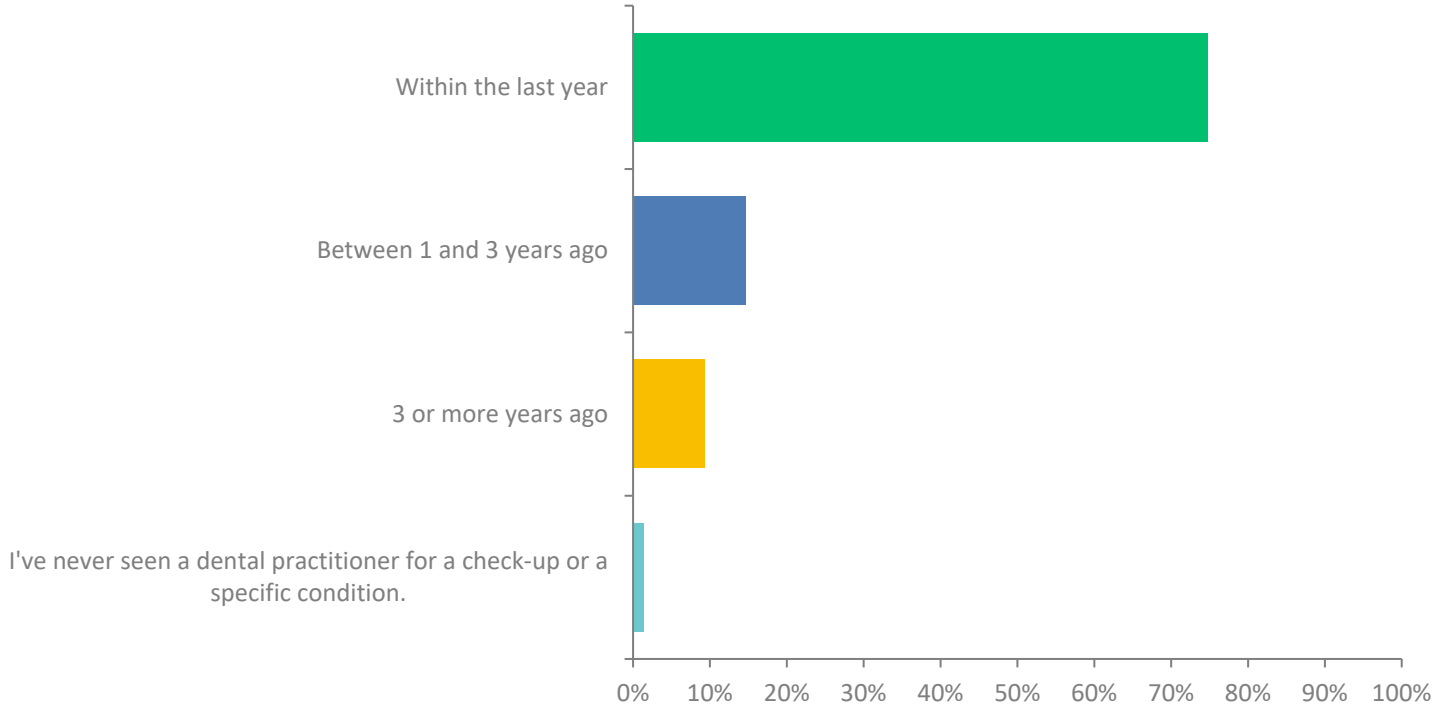
# Q5: Do you have a regular dental practitioner that you see for check-ups or dental problems?

Answered: 1892



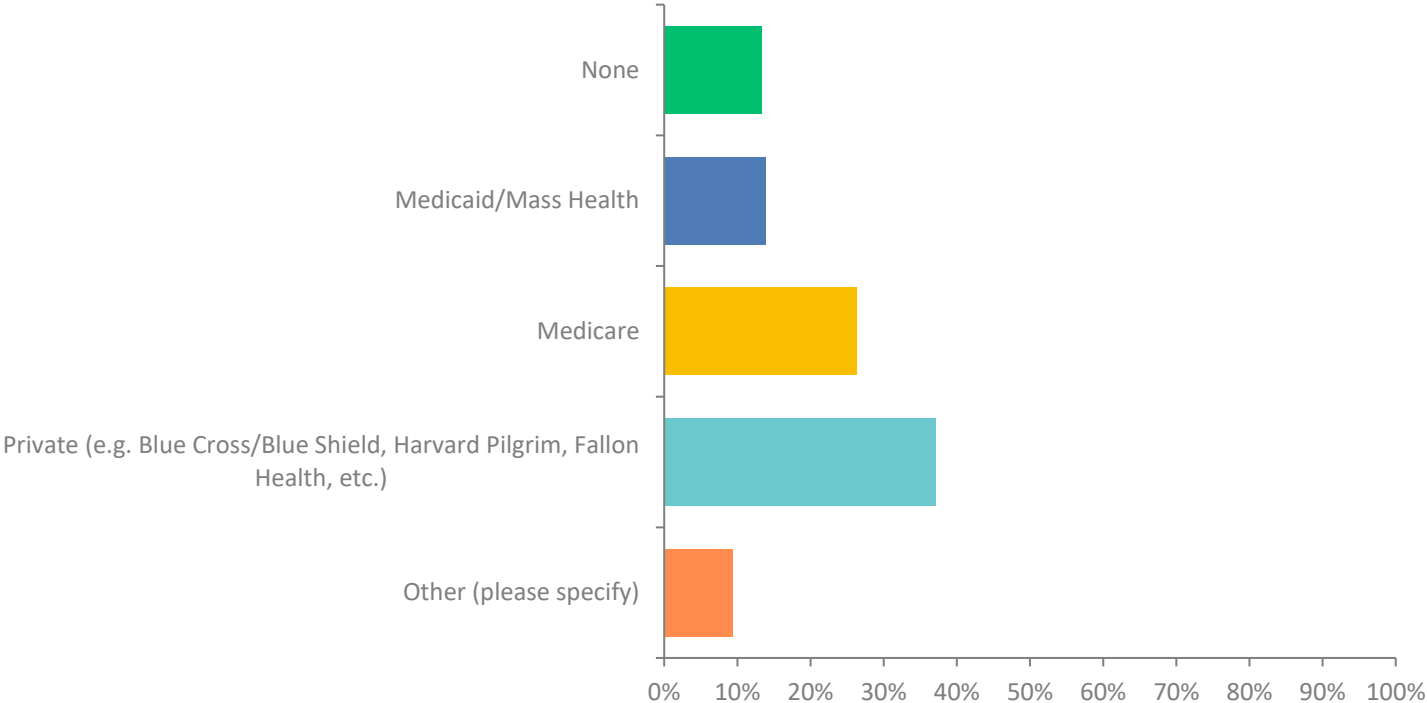
## Q6: When was the last time you saw a dental practitioner either for a regular check-up or a specific condition?

Answered: 1892



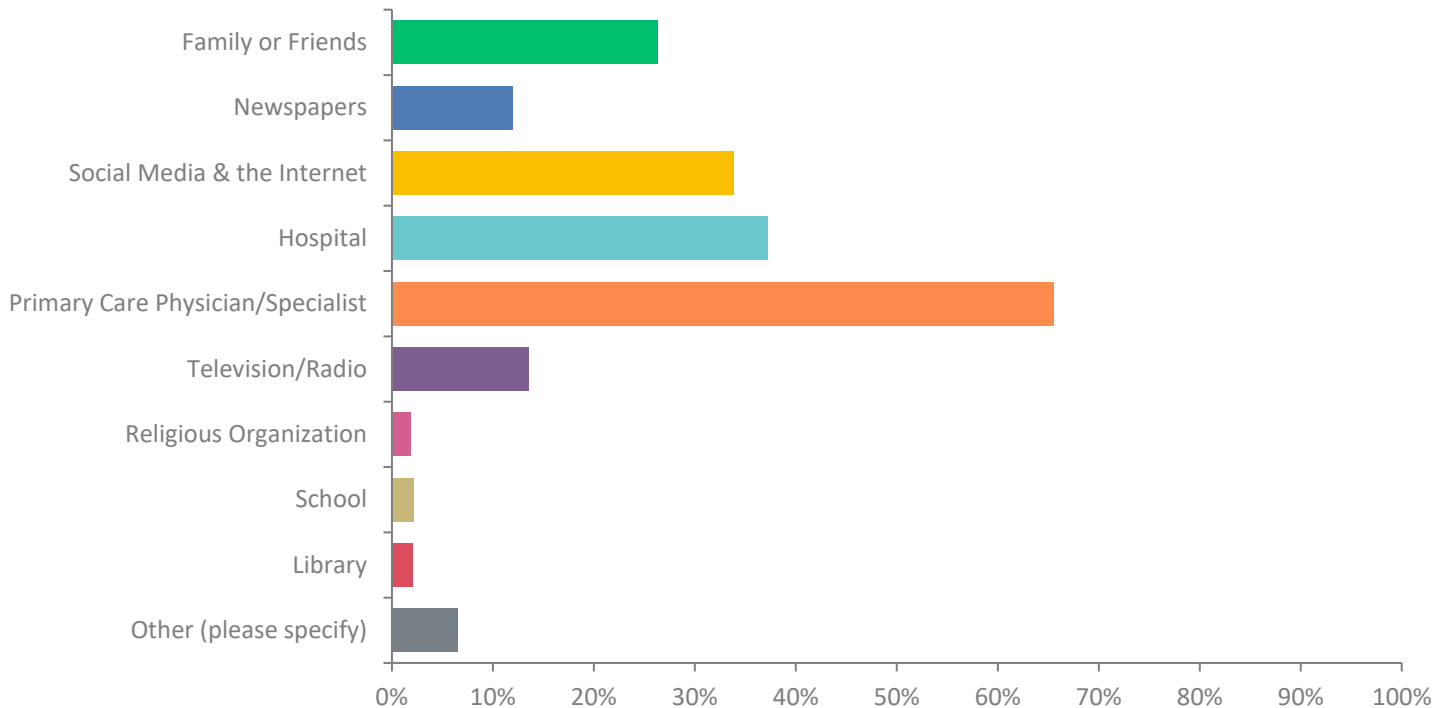
# Q7: What kind of health insurance do you have?

Answered: 1892



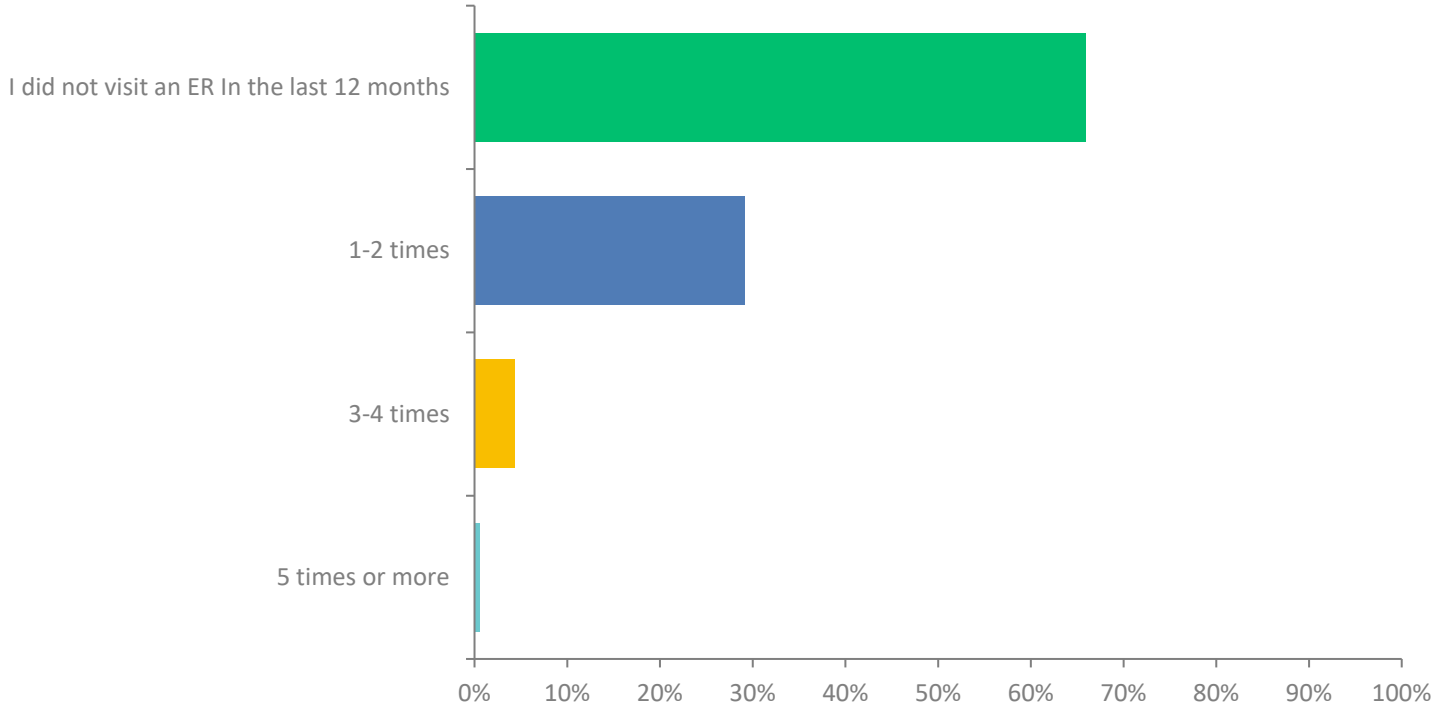
## Q8: Where do you and your family get most of your health information? (Check all that apply)

Answered: 1892



# Q9: How many times in the past 12 months have you visited an EMERGENCY ROOM (for yourself or a loved one)?

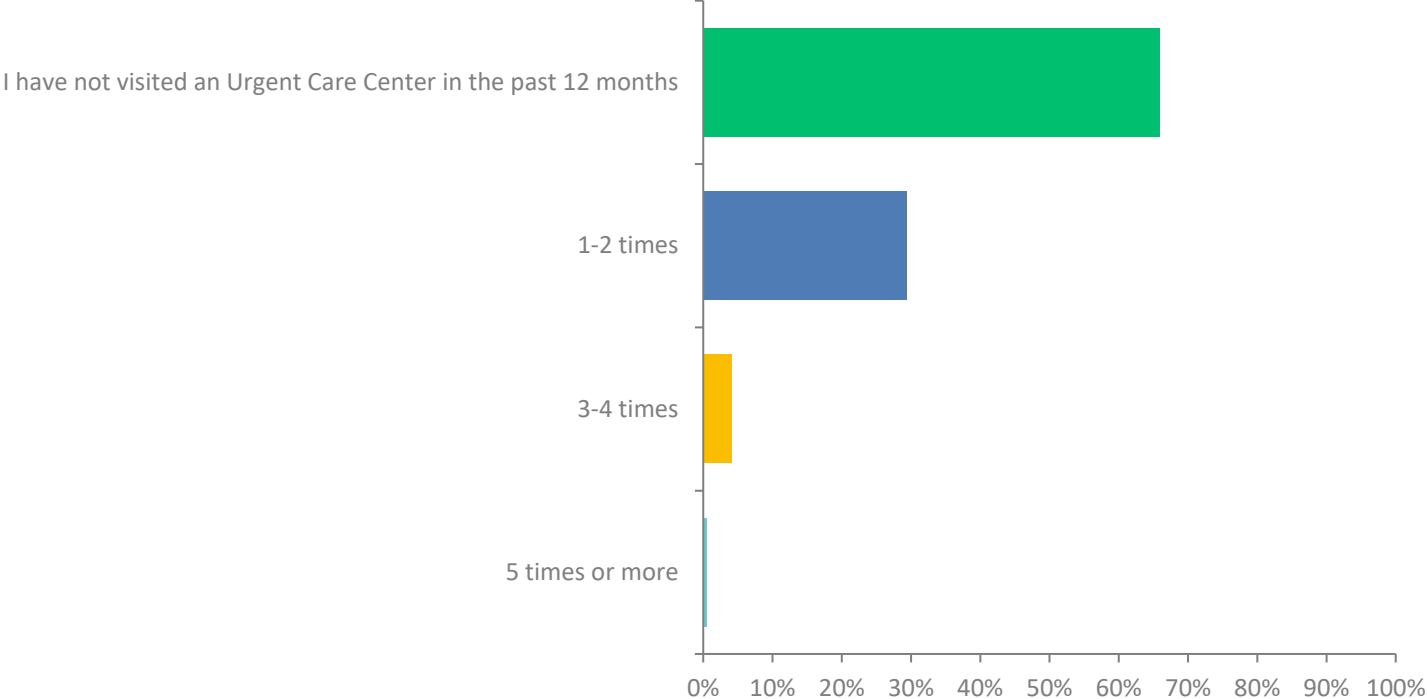
Answered: 1892





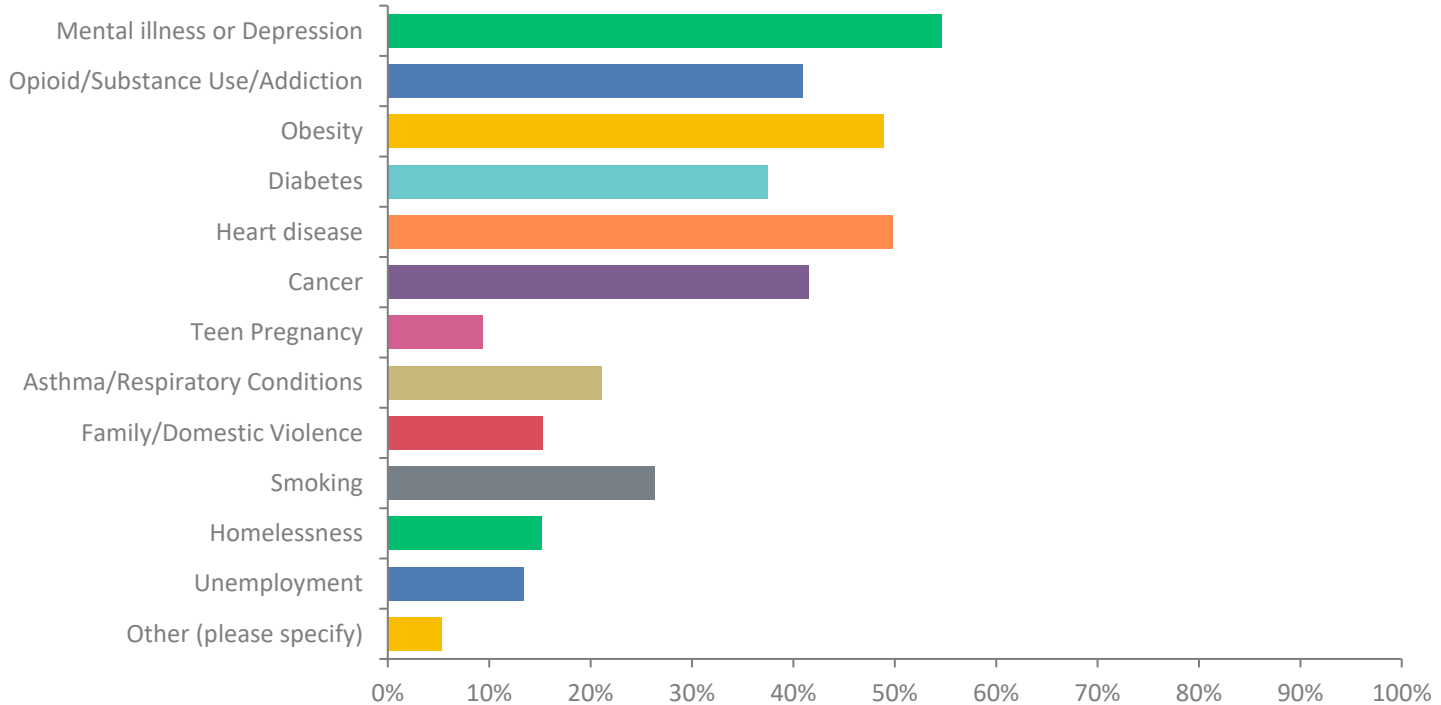
# Q10: How many times in the past 12 months have you visited an URGENT CARE CENTER (for yourself or a loved one)?

Answered: 1892



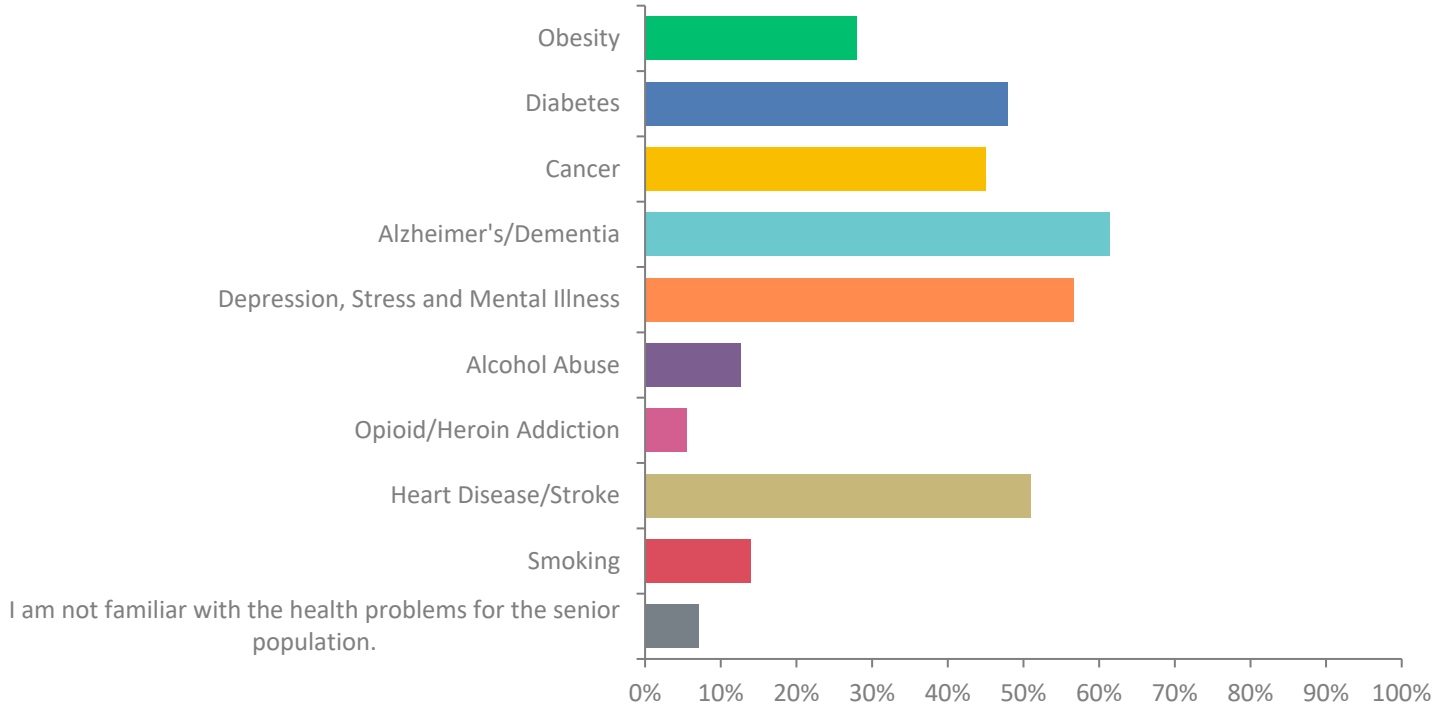
# Q11: In general (thinking of all ages and demographics), which of the following would you identify as MAJOR HEALTH CONCERNS in your community? (Check all that apply)

Answered: 1849



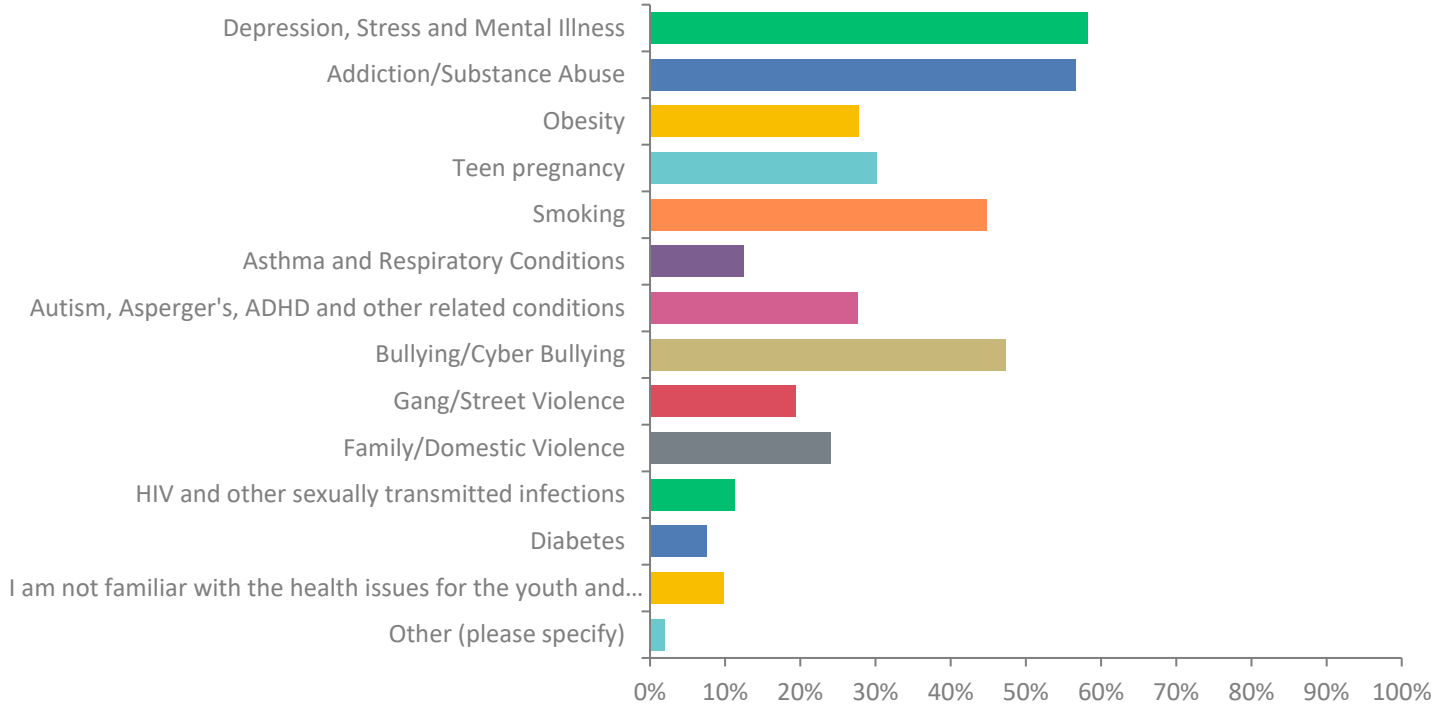
# Q12: Which of the following would you identify as major health concerns for the SENIOR POPULATION (ages 65+)? (Check all that apply)

Answered: 1849



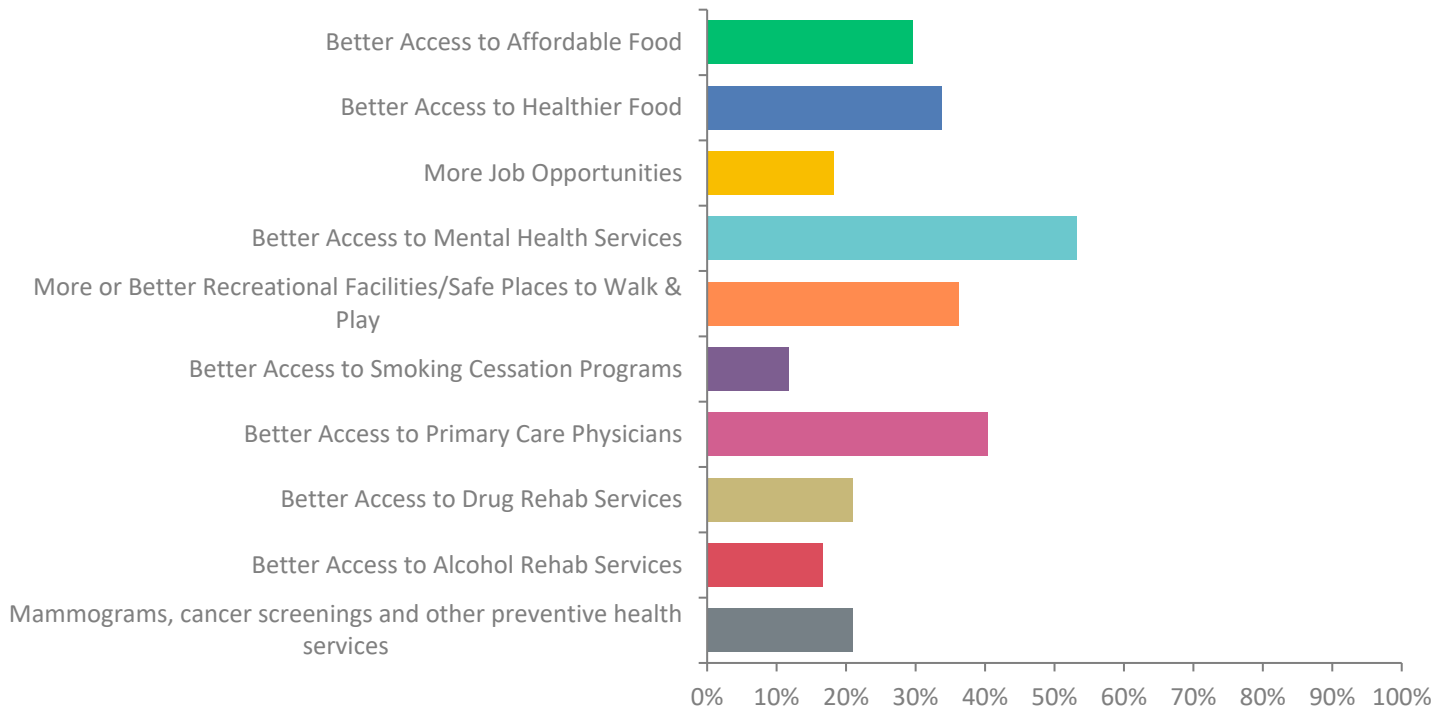
# Q13: Which of the following would you identify as being major health concerns for the YOUTH AND ADOLESCENT POPULATION (17 years and younger)? (Check all that apply)

Answered: 1849



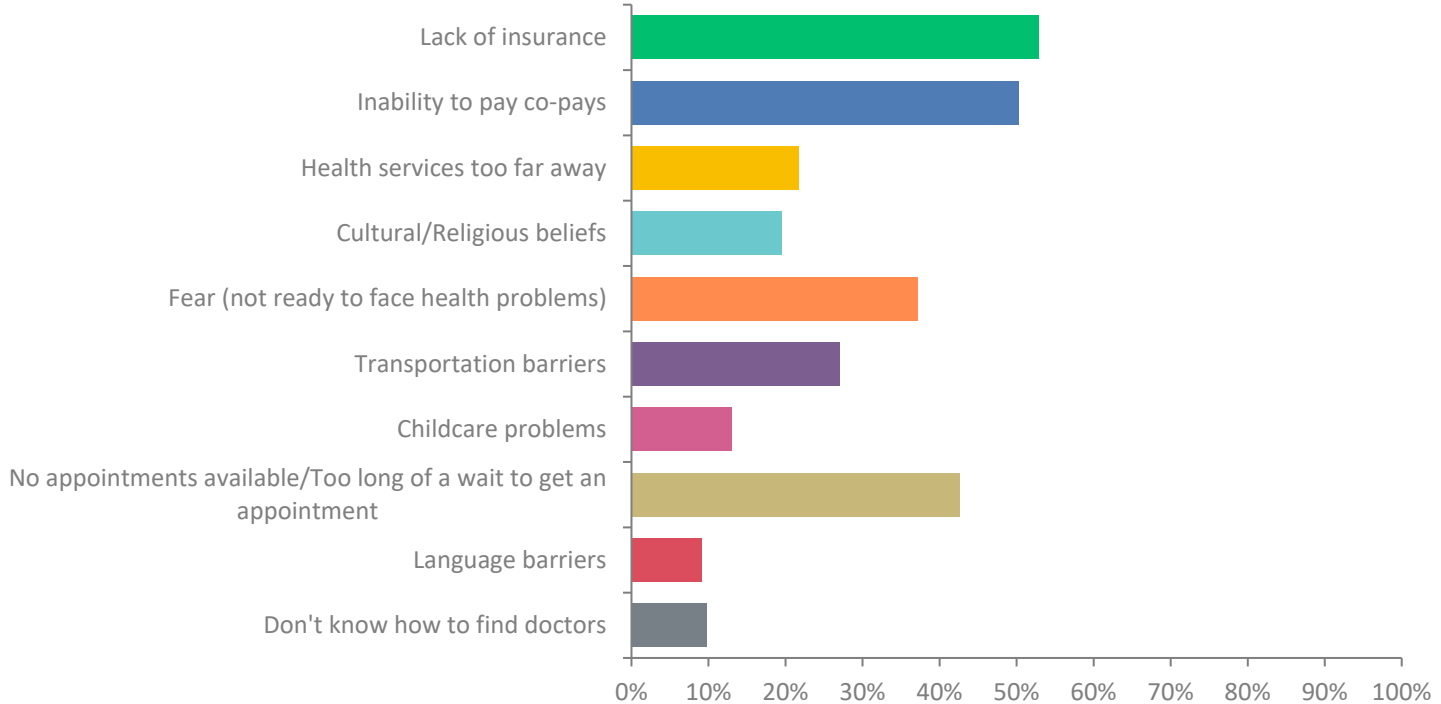
# Q14: In your opinion, what is MOST needed to improve the health of your family and your neighbors? (Check all that apply)

Answered: 1808



# Q15: What do you think keeps people in your community from seeking medical treatment? (Check all that apply)

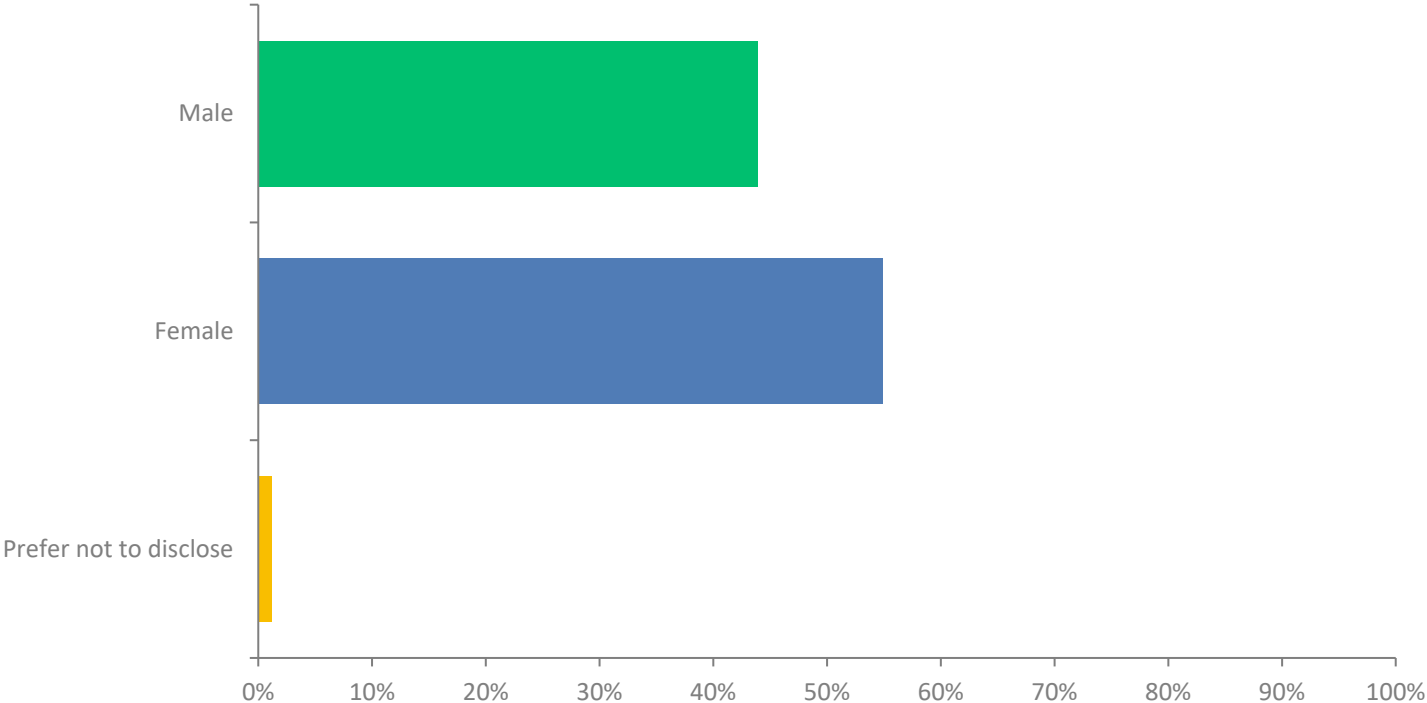
Answered: 1808





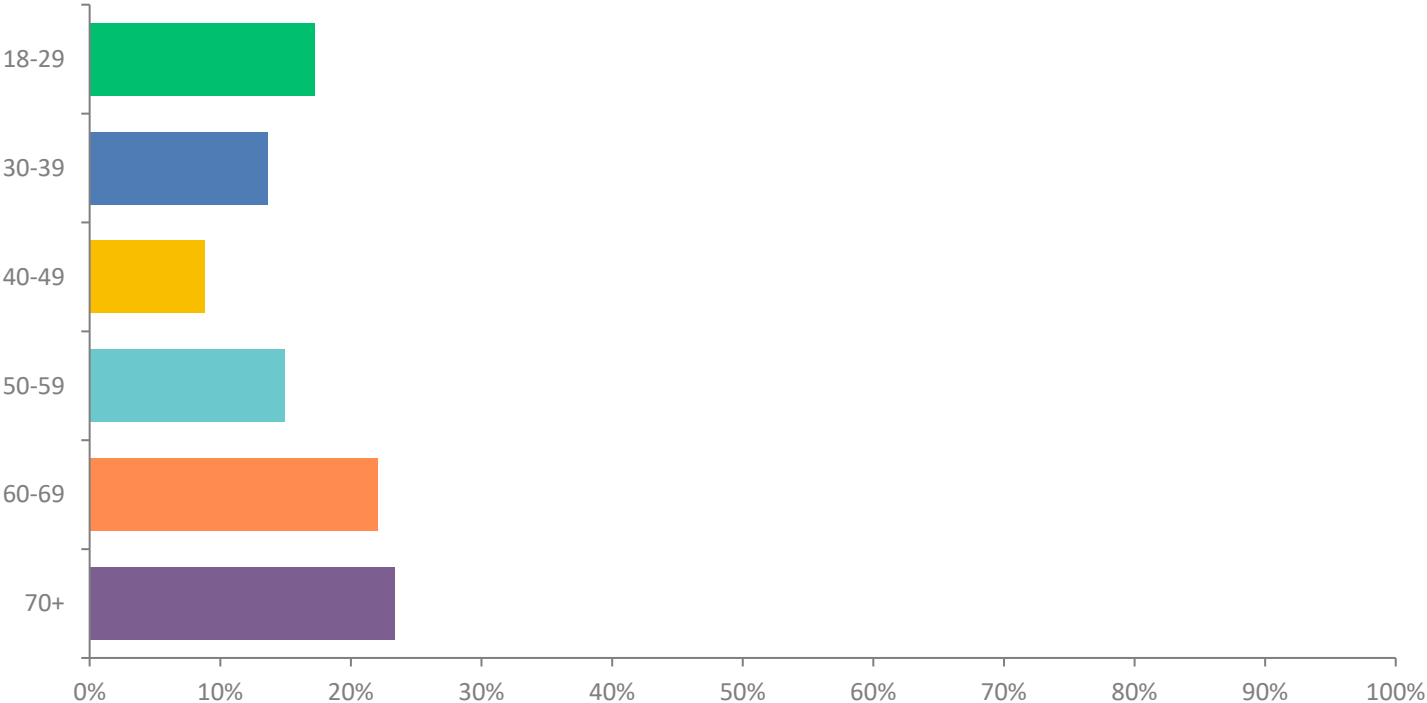
# Q17: What is your gender?

Answered: 1783



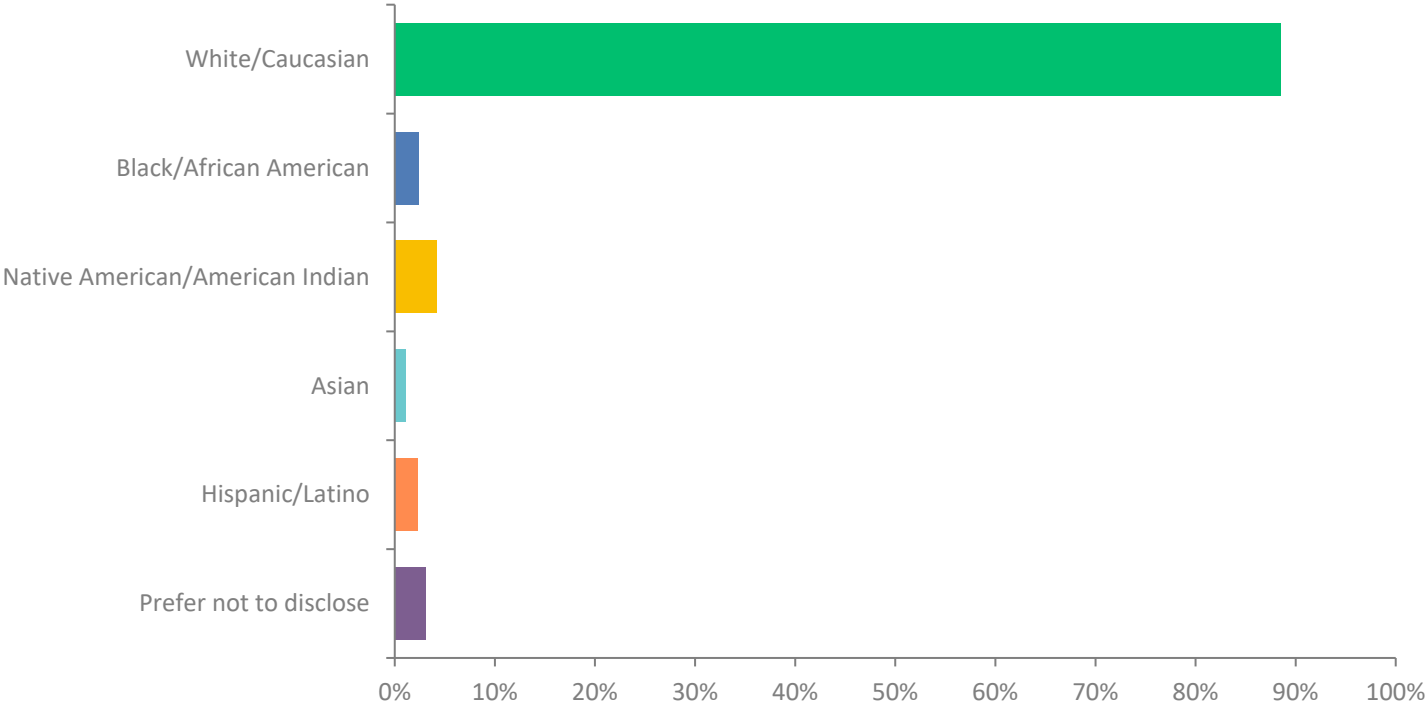
# Q18: Please categorize your age:

Answered: 1783



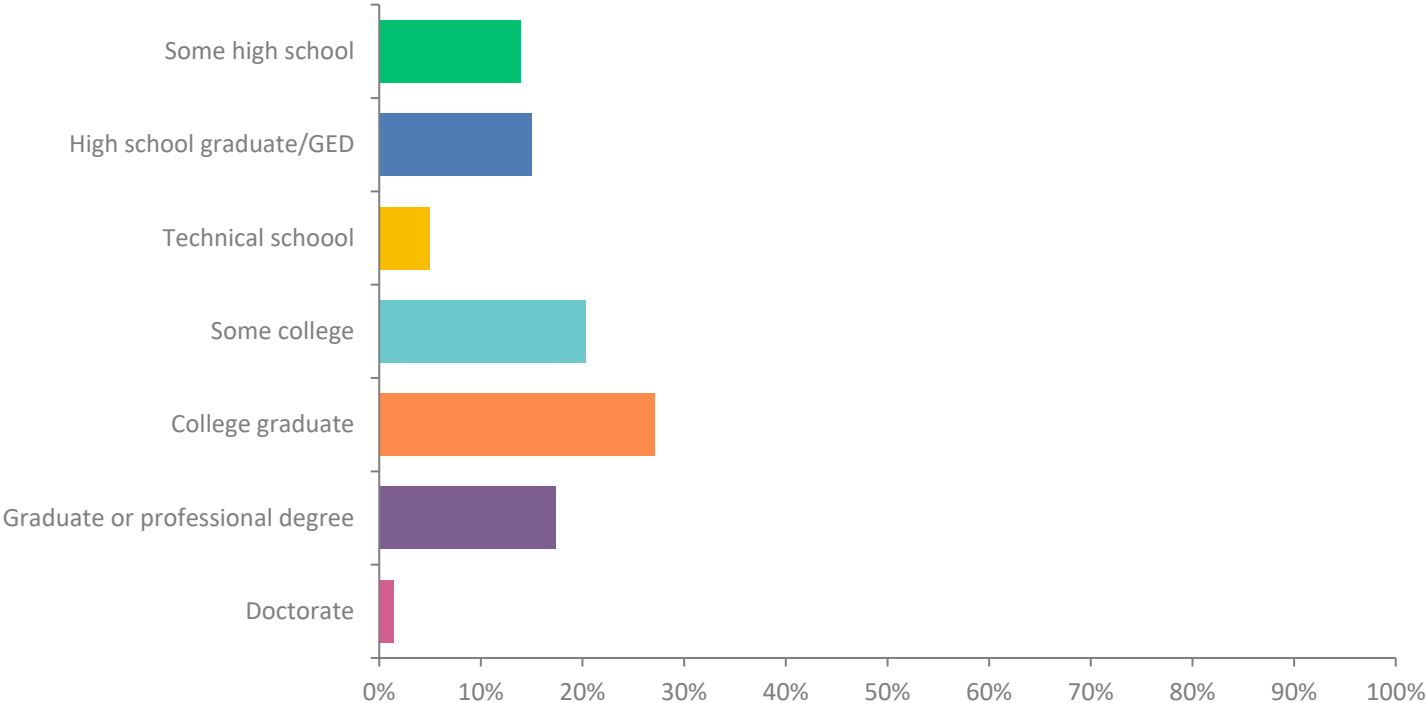
# Q19: What is your racial/ethnic identification? (Check all that apply)

Answered: 1783



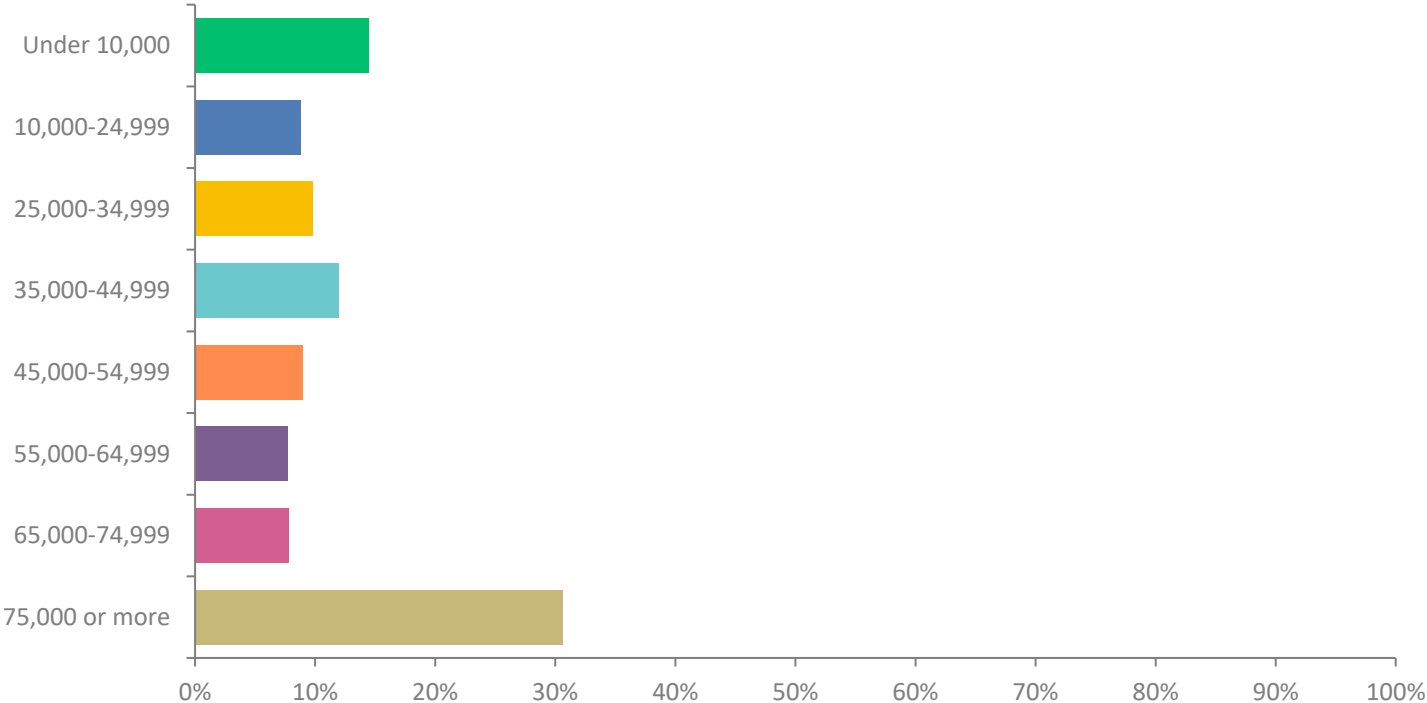
# Q20: What is the highest level of education you have completed?

Answered: 1783



# Q21: What category best describes your annual household income?

Answered: 1783



# ATTACHMENT B: Resource Inventory

Sector	Organization	Address
Behavioral Health	Harrington Recovery Services	176 Main Street, Southbridge, MA
	Addiction Services at Right Choice Health Group	100 Central Street, Southbridge, MA
	LUK, Inc.	251 Main Street, Webster, MA
	Center of Hope Foundation	38 Walnut Street Southbridge, MA
	Behavioral Health Services at Harrington Hospital	100 South Street, Southbridge, MA
	YOU, Inc. Family Services Griswold Center	328 Main Street, 1st Floor, Southbridge, MA 40 Wright St., Palmer, MA
Children and Families	Southbridge Family Resource Center	328 Main Street, Southbridge, MA
	Southbridge Community Connections	328 Main Street, Southbridge, MA
	Tri-Community Family Branch YMCA	43 Everett Street, Southbridge, MA
	WCAC Head Start/Early Head Start	25 Cole Ave, Southbridge, MA
	Boys and Girls Club of Webster/Dudley	55 Oxford Ave, Dudley, MA
	Kids Unlimited	35 Trolley Crossing Rd., Charlton, MA
Disabilities	Resident Programs by Life Skills, Inc.	44 Morris Street, Webster, MA
	Center of Hope Foundation	100 Foster Street, Southbridge, MA
	Kennedy Donovan Center, Inc.	486 Worcester Street, Southbridge, MA
Domestic violence	New Hope	Southbridge, MA
Education	Literacy Volunteers of South Central MA	236 Main Street, Southbridge, MA
	WCAC HISET and ESL	25 Cole Ave, Southbridge, MA
	French River Education Center, Inc.	672 Main St., North Oxford, MA
	Jacob Edward's Library	236 Main Street, Southbridge, MA
	Quinsagamond Community College	132 Torey Road, Southbridge, MA
Food Assistance	WIC of South Central MA	29 Pine Street, Southbridge, MA
	Catholic Charities of Worcester County	79 Elm Street, Southbridge, MA
	Oxford Ecumenical Food Shelf	4 Maple Rd., Oxford, MA
Healthcare	Umass Memorial Harrington Hospital	100 South Street, Southbridge, MA
	Family Health Center	29 Orchard Street, Southbridge, MA
	Renaissance Medical Group	25 Sandersvale Rd., Southbridge, MA
	South County Pediatrics	344 Thompson Rd., Webster, MA
	VNA of Southern Worcester County	534 School St., Webster, MA
Housing	Central Mass Housing Alliance	6 Institute Rd., PO Box 3, Webster, MA
	St. Luke's Guesthouse	141 Main Street, Southbridge, MA
	The Bridge of Central MA dba Open Sky Community Services	39 Elm St., Southbridge, MA
Social Services	Catholic Charities of Worcester County	79 Elm Street, Southbridge, MA
	DTA Southbridge Transitional Assistance Office	80 Optical Drive, Southbridge, MA
	Healthy Families (Worcester Community Action Council) WIC of South Central MA	61 Pine Street., 2nd Floor, Southbridge, MA 29 Pine Street, Southbridge, MA
Workforce Development	Workforce Central	5 Optical Drive, Southbridge, MA



# ATTACHMENT C:

## Community Benefits: Evaluation of Impact 2019-2021

**Evaluation of Impact: 2019 - 2021**

UMass Memorial Health Harrington developed and approved an Implementation Strategy to address significant health needs identified in the 2019 - 2021 Community Health Needs Assessment (CHA). The Implementation Strategy Plan aligns with the findings of the Community Health Needs Assessment.

Priority Areas:

- Assistance with Health Insurance Applications
- Cancer Care Support
- Health Education
- Health Screenings
- Harrington Teen Self Wellness Program

To accomplish the Implementation Strategy, goals were established that indicated the expected changes in the health needs because of community programs and activities. Strategies to address the priority health needs/Domains were identified and impact measures tracked. The following tables outline the impact made on the selected significant health needs since the completion of the 2019 CHA. UMass Memorial Health Harrington has dedicated community benefits staff that works closely with community organizations and reports activities to the UMass Memorial Health Harrington Board of Trustees.

<b>Domain 1: Assistance with Health Insurance Applications</b>		
<b>Goal</b>	<b>Programs/Strategies to Address Health Need</b>	<b>Outcomes/Impact</b>
Harrington provides financial assistance and certified application counselors to help process health insurance applications for members of the community without coverage or who need assistance switching coverage.	Help those without health insurance or those who need to switch coverage plans by providing navigation and supervision through application process and paperwork.	Over the course of this 3-year period, we have helped people sign up for health insurance or financial aid. Our financial counselors have helped individuals and families with the application process. We have assisted 5264 community members throughout this process. **Due to COVID-19, numbers during these years were impacted.

<b>Domain 2: Cancer Care Support</b>		
<b>Goal</b>	<b>Programs/Strategies to Address Health Need</b>	<b>Outcomes/Impact</b>
Cancer Support Groups	Provide ongoing cancer support to patients and caregivers as well as family members in the South-Central MA area.	In 2019, 7 external and multiple internal support groups for patients and caregivers were held and attended by 650 individuals. In 2020 and 2021, due to COVID-19, all patient and caregiver support groups were held virtually. Once a month both patients and caregivers had access to support. Since COVID-19, this has been ongoing throughout the year.
Cancer Survivors Night	The Cancer Center provided a celebratory and informative dinner and/or breakfast to celebrate cancer survivors of all stages within our community.	These events are held to motivate survivors, as well as their caregivers and families, through the challenging times of treatment and care and provide support. In 2019, the Cancer Center held a Survivor Dinner, attended by approximately 275 individuals. In 2020, we were unable to hold an event due to

		COVID-19 restrictions. In 2021, due to some COVID–19 restrictions being lifted, there was a breakfast held outdoors under a tent, with 200+ individuals in attendance.
--	--	--

<b>Domain 3: Health Education</b>		
<b>Goal</b>	<b>Programs/Strategies to Address Health Need</b>	<b>Outcomes/Impact</b>
Hands only CPR training and Heart Disease Education	Provide free demonstrations and training for Hands-Only CPR to community members in collaboration with education about heart disease and cardiac arrest.	Teach community members Hands-only CPR so more people can help save lives. In 2019, there was a push from the AHA to teach Hands only CPR. A total of 47 community events were held and 5300 individuals received training. In 2020, due to COVID-19 restrictions Only four community events were held, and 65 individuals trained. In 2021, there were 35 community events, but due to state protocols, we were not able to teach at every event, therefore, 350 individuals were trained in Hands only CPR.
Nutrition Education	Provide nutrition information including sugar, salt and fat contents of popular foods and drinks. Partner with complimentary body composition analysis screening.	We reached 1600 people during this period and educated them on healthy eating and healthy food resources. **COVID-19 affected our community events in 2020-2021.
Opioid Awareness Education	Provide information and education on the rising opioid epidemic in Harrington’s footprint and how it relates to the statewide disparity. Focus education to the community and referring agencies, law enforcement and municipal leaders.	During the period, Harrington introduced the opening of our new AIC (Addiction Immediate Care) unit in Webster, MA. There were several informational forums and presentations on how to address the opioid epidemic in our community. Approximately 500 individuals attended the forums. A total of 5,600 clients were also helped either by tele-health or by virtual groups. Prior to COVID, there were seven groups held in person and attended by approximately 850 people.
Stroke Education and Cardiovascular Health Education	Educate community on symptoms of stroke and lifestyle modifications to increase cardiovascular health.	Our Community Outreach team was able to reach 2828 community members from 2019-2021. **Community Outreach was affected by COVID-19 during the years 2020-2021.

<b>Domain 4: Health Screenings</b>		
<b>Goal</b>	<b>Programs/Strategies to Address Health Need</b>	<b>Outcomes/Impact</b>
Sun Damage Screening	Provide free skin analysis and sun damage screening utilizing a UV machine light box. Collaborate education on sunscreen lotions and skin cancer.	In 2019-2021, our educators were able to reach 900+ individuals and educate them regarding sun damage. **Due to COVID-19, in 2020-2021 sun damage screenings were impacted.

<b>Domain 5: Harrington Teen Self Wellness Program</b>		
<b>Goal</b>	<b>Programs/Strategies to Address Health Need</b>	<b>Outcomes/Impact</b>
Support teens and young adults ages 13-26 with wellness information including Anti bullying, Healthy Relationships, Domestic Violence and Abstinence. Utilization of mobile unit "Harrington on Wheels" to provide general outreach. Education is also distributed to parents of teens and young adults.	Provide Outreach to teens and young adults ages 13-26 on building Healthy Relationships, safe sex, anti-bullying, and other wellness prevention education.	During this three-year period, this program was able to reach 5,600+ teens and young adults. In 2019, we had a significant impact in the community. This program would have reached its goals each year, but due to COVID-19, in 2020, we had only three months of community outreach due to state protocols and this was reflected in our numbers for that year. In 2021, we slowly started to re-engage with the community although COVID-19 was still a factor.