Mass General Brigham
Salem Hospital

Salem Hospital

Community Health Needs Assessment

2021

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Executive Summary

Introduction

Salem Hospital, a member of Mass General Brigham, has a long-standing commitment to the health and vitality of our North Shore communities. Salem Hospital was founded to serve our neighbors and those in need, a commitment that is just as strong today as it was a century ago. We recognize that access to health care is necessary but not sufficient to achieving good health. Social and economic factors—such as equitable access to employment, healthy food, quality education, and affordable housing—play a critical role in overall health. They are compounded by significant racial and ethnic inequities as well as in health status. Given the complexities of these issues, hospitals must partner with other organizations and sectors of the economy as a strategy for improving health, reducing cost, and achieving racial and ethnic equity. Salem Hospital has collaborated with neighboring communities to advance our shared vision of safe, thriving, and healthy neighborhoods by leading a highly participatory 2021 Community Health Needs Assessment.

Background

Salem Hospital is the North Shore's largest healthcare provider. The hospital offers comprehensive care and a commitment to exceptional quality, safety, and kindness at its main hospital campus, ambulatory care sites and physician offices.

Since its last Community Health Needs Assessment (CHNA) and creation of its 2019-2021 Community Health Improvement Plan (CHIP), Salem Hospital has implemented services and programs to address the following priorities: (1) Behavioral Health: Mental health, substance use disorders, gaps in treatment, and stigma; (2) Health Care Access: Accessibility, health insurance and cost, care coordination and navigation; and (3) Health Care Environment and Trust: Culturally-sensitive care delivery and offering services in multiple languages. The CHIP also addressed the cross-cutting needs of vulnerable populations (such as immigrants, seniors, youth, and those who are homeless) and incorporated health education strategies related to the prioritized needs.

While hospital CHNAs are typically conducted every three years, the 2021 CHNA will inform a one-year plan; the reason is two-fold: First, the next year will be critical to helping communities get through the pandemic and may include pandemic recovery strategies. Second, the one-year plan will enable Salem Hospital to get on the same triennial cycle as the other Mass General Brigham hospitals and allow for leveraging of resources to address common concerns across hospital service areas. Although informing a one-year CHIP, the CHNA fulfills the IRS Section H/Form 990 mandates to identify health-related community needs, strengths, and resources; describe concerns for the community and sub-populations within it; and provide data for CHIP planning. The 2021 CHNA was conducted in August and September of 2021 and the key findings were shared with the hospital's Community Affairs and Health Access Committee (CAHAC).

Methodology

The 2021 CHNA focused on eight communities: Danvers, Lynn, Lynnfield, Marblehead, Nahant, Peabody, Salem, and Swampscott. In 2020, Salem Hospital provided care to 101,754 residents of these priority communities and residents comprised 58.4% of Salem Hospital patients.

The CHNA employed a Social Determinants of Health (SDoH) framework to examine how factors like income, education, employment, food security, housing, access to affordable and quality health services impact the health of community members, particularly those most likely to experience inequities in SDoH.

The CHNA utilized existing data from the U.S. Census, Centers for Disease Control and Prevention, Massachusetts Departments of Public Health and Elementary and Secondary Education, the Federal Bureau of Investigation, and Mass General Brigham. The CHNA also gathered data via eight online focus groups with 50 clinical and community leaders from 43 organizations in the following sectors: Community Health Centers, behavioral health (mental health and substance use

disorder) services, youth services, elder services, housing, food security, the faith community, and health care advocacy. The focus group data were analyzed for common and divergent themes about health concerns and SDoH.

Findings

Below, the key themes from the CHNA are summarized.

Community Assets and Resources: Focus group participants identified the diversity and resiliency of the community, as well as the number of organizations serving the priority communities and collaboration among those organizations as important community assets and resources.

Diversity and Disparities in Lynn: Of the eight communities in the hospital service area, Lynn is the most populous, has the largest proportion of residents under 65, is the most racially/ethnically diverse, and is home to the largest proportion of immigrants and non-English speakers. Lynn's median household income is the lowest in the service area and Lynn has higher unemployment and a larger proportion of residents living in poverty. The community has the lowest rates of public high school graduation within four years and the highest public-school drop-out rates. Lynn has a larger proportion of adults 25+ with less than a high school or equivalent degree. A larger proportion of Lynn residents live in rental housing than in the other target communities. While a larger proportion of Lynn's homeowners pay 35% or more of their income to pay for housing costs, Lynn's median home values are the lowest in the service area. Lynn also has the highest proportion of households with cell phones but no other computer. Lynn's rates of violent and property crimes are the highest in the region. The community has the largest proportion of SNAP beneficiaries and the highest rates of adult obesity, diagnosed diabetes, and smoking. Lynn also has the highest rates of emergency room utilization for asthma, and rates of gonorrhea and chlamydia. Lynn also had the largest number of COVID-19 infections and the highest case rate in the area.

Social Determinants of Health: The lack of safe and affordable housing, absence of food security and sufficient nutrition, challenges of transportation, lack of access to broadband and adequate cell service, and lack of affordable and quality childcare were identified as the SDoH that have the greatest impact on the health of community members.

- ***Housing:*** As the North Shore becomes increasingly gentrified, problems with access to safe and affordable housing increase. Problems exist across the housing continuum, from emergency/temporary to longer-term/stabilization to permanent housing, including permanent supportive housing. Limited shelter space in general and especially for unaccompanied youth (under 18), and too few affordable housing options for everyone and especially for seniors, lead to housing-related problems such as over-crowding, unhealthy and unsafe conditions, housing instability and frequent relocation, and homelessness. These challenges exacerbate other SDoH, disrupt care, and contribute to the spread of COVID. Collaborative problem-solving between hospital and community partners as early as possible *before* hospital discharge will help to secure housing options that best support patient safety *after* discharge, particularly for patients with mental and physical health issues for whom housing options are extremely limited.
- ***Food/nutrition:*** Although several food assistance programs exist to address food insecurity, residents still have problems accessing nutritious and affordable food. Limited program hours and transportation challenges affect access. Stigma, lack of understanding about the importance of nutrition to health, and lack of culturally relevant foods affect use of such programs. Many residents have limited or no storage or cooking facilities. Poor oral health and barriers related to access, cost, cooking, storage, and understanding about nutrition lead to unhealthy eating.
- ***Transportation***: Lack of transportation to/from medical appointments and other services is a barrier to preventive services, continuity of care, and appropriate use of emergency and ambulance services. Few transportation options exist, particularly chair cars for transporting seniors. Transportation challenges limit access to food programs and healthy foods, as well as detox and other behavioral health services outside of the service area. Transportation issues prevent residents from getting to interviews and appointments which hinders employment, housing, and other services, and limit youth access to school and youth programs.
- ***Broadband and Cell Service:*** The need for remote (i.e., phone, internet) access has increased over time and especially during the pandemic, but access to such services is not equitable. Unlimited cell plans and internet service are expensive. Broadband and cell plan resources increased during the pandemic but are now being reduced. People often use all of their minutes on hold with housing and other agencies and have too few minutes and inadequate connectivity for telehealth appointments.

- ***Childcare:*** There are too few childcare slots available in the community. The lack of affordable and quality childcare prevents many residents from being able to work, especially lower paid health and social service workers. During the pandemic, many students missed school to care for younger siblings so that their parents could work.

Priority Health Issues: Behavioral health, oral health, and COVID-19 were identified as the three health issues having a particularly detrimental impact on the priority communities.

- ***Behavioral health:*** Existing behavioral health problems intensified during the pandemic; isolation, depression, anxiety, and substance use are believed to be on the rise. There are long waiting lists and too few behavioral health providers, especially those who speak languages other than English, accept Medicaid, and treat pediatric patients. There aren't enough detox beds available statewide, and especially on North Shore, and too few options for the uninsured and those with MassHealth. Too few post-detox services exist as well. When detox and other behavioral health services are available outside of the immediate area, transportation becomes a barrier to access. When medication assisted treatment (MAT) is provided in an Emergency Department (ED), it is often difficult to schedule follow-up appointments with primary care providers so patients can continue with MAT. The window of opportunity for getting people into detox, treatment, and on MAT is narrow. The aforementioned barriers often mean that the window is missed. Additionally, when hospital patients are discharged without a supply of medications for mental health issues or SUDs in hand, the likelihood increases that they will go without medications and their conditions will worsen.
- ***Oral health:*** Oral health services are expensive, particularly for restorative care. Too few dentists are available in the service area and fewer still accept Medicaid. Poor oral health has a significant impact on the ability to consume nutritious foods and affects health more broadly.
- ***COVID-19:*** COVID-related unemployment and social distancing exacerbated economic disparities, isolation, and behavioral health issues for many residents, especially immigrants, seniors, and those with existing behavioral health issues. Misinformation about vaccines persists, particularly in non-English speaking communities. Lack of trust, housing instability, and transportation contribute to low testing and vaccination rates.

Barriers to care and service delivery and coordination: Several systemic barriers affect access to care and effective service delivery and coordination. Utilization of Salem Hospital's ED has increased with the closure of Union Hospital and because primary care appointments are so hard to get; demand has resulted in long wait times. Hospital staff experience challenges scheduling follow-up appointments with primary care providers. Although the hospital and Lynn Community Health Center both utilize EPIC, they are not able to communicate and coordinate patient care within it. Collaborative problem-solving with community partners to meet patient needs post-discharge would be better supported by earlier screening, referrals, and consultations while patients are in the hospital. North Shore Community Health center patients don't have access to prenatal services on site at the health center and, when referred to the hospital, those patients sometimes experience delays and difficulty navigating the system. Staffing shortages exist in health care and behavioral health at all levels and service providers are exhausted and burned out from managing their roles and increased demands resulting from the pandemic.

Needs of vulnerable populations: Behavioral health and the social determinants of health pose particular threats to seniors, youth, and immigrants and those with limited English proficiency.

- ***Seniors:*** Seniors are increasingly isolated and experiencing increased behavioral health issues. Hospital providers who are uncomfortable addressing the specific care needs of geriatric patients, tend not to discuss end-of-life decisions which can result in patients being denied choice about their health care. The combination of mental health and dementia (and sometimes SUDs too) among seniors is not well-understood or appropriately treated in health care generally; to ensure the safety of such patients, collaborative planning between hospital and community partners is essential. When seniors are admitted to long-term care without ensuring that they and their families understand their conditions and prognosis, facilities and community providers are put in difficult positions. Home-health shortages, especially among caregivers who speak languages other than English, cause long delays and inconsistent care and endanger homebound seniors. Transportation, particularly chair cars, are often not available to transport seniors to/from health care and other services. Too few affordable housing units exist for seniors and many live in unmaintained housing, and unsanitary and unsafe conditions. Seniors often lack resources that would keep them safe and out of the hospital (i.e., air conditioning, grab bars, chair lifts, hospital beds) because insurance won't pay for them.

Healthy and easy to prepare and eat foods are not always available, which affects blood pressure, blood sugar, and the overall health of seniors.

- ***Youth:*** Too few behavioral health resources existed for youth before the pandemic. During the pandemic, social isolation, anxiety and depression, and SUDs increased. Education was disrupted by remote learning and even more so for many who got jobs to contribute to household incomes and/or cared for younger siblings so their parents could work. Shelter space for unaccompanied youth (under 18) is extremely limited. Transportation issues limit youth access to school and youth programs. Unaccompanied youth and LGBTQ youth are hard to identify (unless they self-identify) and engage in services. Many youth services providers don't feel adequately prepared to talk to youth about mental health concerns, identify behavioral health emergencies, and make referrals.
- ***Immigrants/residents with limited English proficiency and/or health literacy:*** Medical misinformation is pervasive in immigrant communities, especially among those who don't speak English and particularly related to COVID-19 vaccines. Newer immigrants often lack experience with, trust in, and understanding of health care, including why it's important and how to access it. Lack of understanding about the health system leads to increased ED use for not urgent issues. Immigrants often live in over-crowded housing and have less access to services due to language barriers, lack of insurance, and fear and mistrust. The ability to navigate the health system is also hindered by language barriers. Many immigrants without residency status fear being turned in to immigration services by health care and other service providers.

Priority Health Needs of the Community

After meeting to review the CHNA findings, the CAHAC determined that there are still significant needs related to the priorities addressed in the last CHIP (2019-2021) and decided to retain those priorities while adding a new priority related to the social determinants of health. They also decided to add education as an issue associated with the SDoH, oral health services as an issue associated with health care access, and violence (i.e., domestic violence, child abuse/neglect, elder abuse/neglect) as an issue associated with behavioral health. Thus, the 2021 priority community health needs are as follows.

Priority	Issues associated with the priority community health needs
Behavioral Health (Existing)	Mental health, substance use disorders, gaps in treatment, stigma, violence (domestic violence, child abuse/neglect, elder abuse/neglect)
Health Care Access (Existing)	Accessibility, health insurance and cost, care coordination and navigation, oral health services
Health Care Environment and Trust (Existing)	Culturally sensitive care delivery and services in multiple languages
Social Determinants of Health (New)	Housing, food/nutrition, transportation, broadband and cell service, childcare, and education

The CAHAC also determined that the cross-cutting vulnerable populations identified in the 2021 CHNA (i.e., elders, youth, and immigrants and those with limited proficiency in English and health literacy) should be the populations included in the upcoming CHIP planning process.

Background

Overview of Mass General Brigham Salem Hospital

Salem Hospital, a member of Mass General Brigham, is the North Shore's largest healthcare provider. The hospital offers comprehensive care and a commitment to exceptional quality, safety, and kindness at its main hospital campus, ambulatory care sites and physician offices throughout the service area.

Summary of Last Community Health Needs Assessment and Strategic Implementation Plan

The 2018 Community Health Needs Assessment (CHNA) examined the health status of the North Shore communities within the Salem Hospital service area and compared findings in 2018 to those of the previous CHNA (2015). Based on review of secondary data and the engagement of community residents and leaders, as well as hospital and health center providers and staff, the 2018 CHNA identified assets, social determinants of health, and health needs within the hospital service area. Thereafter, the hospital's Community Affairs and Health Access Committee (CAHAC), the 20-member body of clinical and community leaders charged with reviewing the CHNA, utilized the 2018 CHNA findings in a planning process to develop the hospital's next three-year Community Health Improvement Plan (CHIP). The 2019-2021 CHIP focused on three priorities:

(1) Behavioral Health
- Mental health (including depression, trauma, and stress)
- Substance use disorders (including opioids, alcohol, and marijuana)
- Gaps in treatment
- Stigma

(2) Health Care Access
- Accessibility (transportation, after-hours care, specialty care)
- Health insurance/cost
- Care coordination/navigation

(3) Health Care Environment & Trust
- Culturally sensitive care delivery (including training/retention of diverse workforce)
- Offering services in multiple languages

In addition to the priorities, the CAHAC recommended maintaining a cross-cutting focus on vulnerable populations (such as immigrants, seniors, youth, and the homeless population) and incorporating health education strategies when addressing prioritized needs.

Since the creation of the 2019-2021 CHIP, Salem Hospital has implemented services and programs to address the identified priorities and cross-cutting needs.

Purpose and Scope of the 2021 Community Health Needs Assessment

Hospital CHNAs are typically conducted every three years and are used to inform plans that lay out strategies for improving community health over a three-year period. Salem Hospital's 2021 CHNA is unique in that it is intended to inform a one-year plan. The reason for a one-year CHIP is two-fold: First, the next year will be critical to helping communities get through the pandemic and thus the plan may include some strategies focused specifically on pandemic recovery. Second, the one-year plan will enable Salem Hospital to get on the same triennial cycle as the other hospitals in the Mass General Brigham system. By being on the same schedule, all of the hospitals can work together and leverage resources to help address concerns that are common across various communities and hospital service areas.

Although informing a one-year SIP, the CHNA fulfills the IRS Section H/Form 990 mandate to:

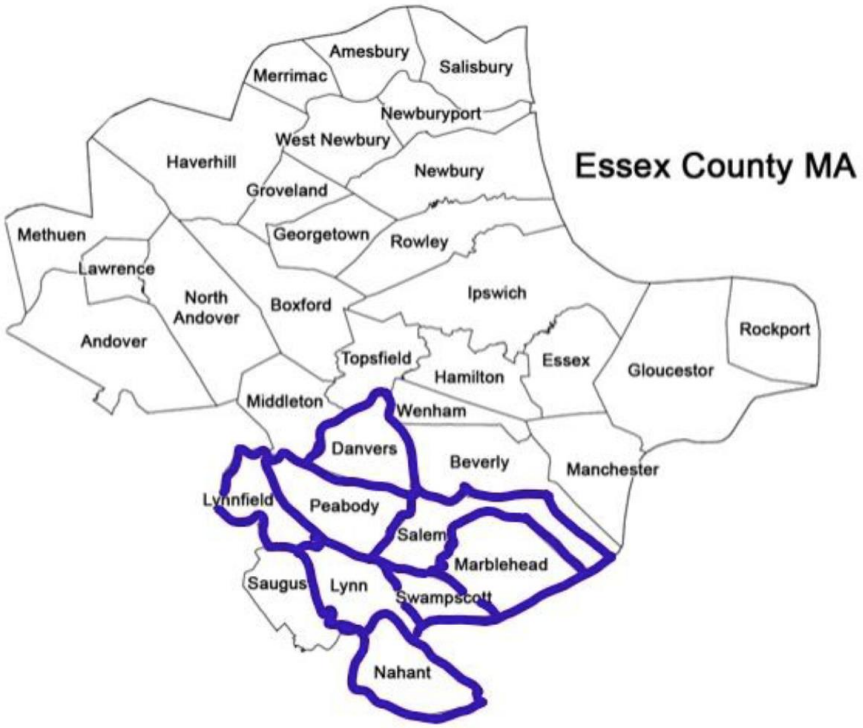
- Identify health-related needs in the community, as well as community strengths and resources;
- Describe issues that affect the community overall, as well as concerns for certain sub-populations; and
- Provide data useful to the hospital and others for planning and developing programs and initiatives.

Salem Hospital engaged public health consultant Hope Worden Kenefick, MSW, PhD to collect and analyze data to develop the 2021 CHNA report. The CHNA was conducted in August and September of 2021 and the key findings were shared with the hospital's Community Affairs and Health Access Committee. This report describes the methodology and findings from the CHNA.

Definition of the Community Served

The 2021 CHNA focused on Salem Hospital's priority communities, namely Danvers, Lynn, Lynnfield, Marblehead, Nahant, Peabody, Salem, and Swampscott (See Figure 1 below).

Figure 1: Salem Hospital priority communities



As shown in Table 1, in 2020, Salem Hospital provided care to 101,754 residents of the eight priority communities. Residents from the eight communities comprise 58.4% of patients receiving care at Salem Hospital in 2020. While the hospital is invested in addressing the health concerns of its patients, its CHNA is intended to identify issues affecting the health and wellness of all residents within these communities, whether they are patients of the hospital or not. And while the CHNA sought information on health concerns across the entire service area, there was a focus on identifying the needs of underserved populations and vulnerable groups.

Table 1. Salem Hospital Patients by Town/City in 2020

City/Town	# of Patients	% of Patients
Danvers	6,062	3.5%
Lynn	45,248	26.0%
Lynnfield	2,078	1.2%
Marblehead	8,899	5.1%
Nahant	1,198	0.7%
Peabody	15,313	8.8%
Salem	16,983	9.8%
Swampscott	6,013	3.5%
Subtotal Priority Communities	101,754	58.4%
Other	72,413	41.6%
Total	174,167	100.0%

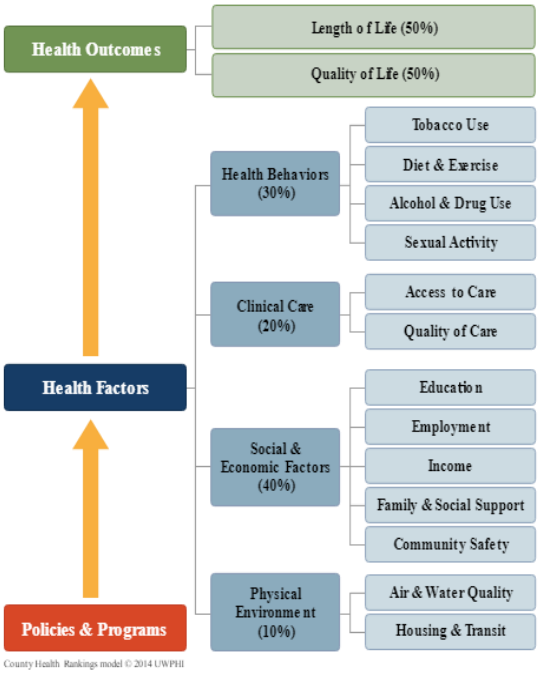
DATA SOURCE: MGB Internal Enterprise Data Warehouse Database for Hospital Fiscal Year 2020

Methodology

According to the World Health Organization, the Social Determinants of Health (i.e., income, education, employment and job security, working conditions, food security, housing, early child development, social inclusion, access to affordable and quality health services) have a major influence on health outcomes and inequities.[i] The places where we are born, grow, live, work, and age play an outsized role in determining the length and quality of one's life.

According to the County Health Rankings (See Figure 2), clinical care accounts for only 20% of an individuals' health outcomes; lifestyle behaviors account for 30%; and social and economic factors and the physical environment account for 50%.[ii] Because health is largely determined by factors beyond health care services, Salem Hospital utilizes a framework for its CHNAs that incorporates the social determinants of health (SDoH) to understand the factors that have the greatest impact on the health and well-being of community members, particularly those most likely to experience inequities in SDoH.

Figure 2: Social Determinants of Health Framework – 2021 Measures



DATA SOURCE: County Health Rankings & Roadmaps, Building a Culture of Health County by County 2014

Quantitative Data: Review of Secondary Data

The Salem Hospital CHNA included a review of secondary (i.e., existing) sources, such as data from the U.S. Census, Centers for Disease Control and Prevention, Massachusetts Department of Public Health, Massachusetts Department of Elementary and Secondary Education, the Federal Bureau of Investigation, as well as an analysis of data available through Mass General Brigham on service utilization, health conditions, and social determinants of health. These data are useful for identifying the incidence and prevalence of health conditions and SDoH. The quantitative data in this report are generally presented in percentages or proportions to allow comparisons across geographic areas and over time. The size of the populations in each of the communities within the hospital's service area differ, with Lynn being the largest. Thus, the actual number of

residents affected by a particular issue may be higher or lower in certain localities even if the percentages across localities are similar.

When possible, city/town-level data were used in this report to allow for a detailed understanding of the demographic and health related issues within each priority community. When town/city-level data were not available, county-level (for Essex County) data were often used to provide some, albeit with limitations, insight into conditions and needs in/around the hospital service area. Additionally, state and county rates are often used to provide a comparison for town/city-level data. For some issues, no quantitative data are provided. The absence of such data does not suggest that these are not relevant issues within the community. Rather, such omissions reflect gaps in the available health and public health data.

Qualitative Data: Input from Community Representatives

The CHNA also relied upon primary data (i.e., collected specifically for the CHNA) that were gathered via eight focus groups with clinical and community leaders. The CAHAC determined that the groups should seek qualitative information from leaders who are positioned to talk about health care quality and access, health and behavioral health concerns, social determinants of health, and the needs of sub-populations who are particularly at-risk for social, economic, and health inequities (i.e., youth, seniors, immigrants, and communities of color). Eight focus groups were conducted with leaders representing the following sectors:

(1) Community Health Centers
(2) Behavioral health (Mental Health and Substance Use Disorder) services
(3) Youth services
(4) Elder services
(5) Housing
(6) Food security
(7) The faith community
(8) Health care advocacy

In all, 50 leaders representing 43 organizations participated in the focus groups. The CHNA was conducted during the pandemic and specifically when the highly contagious Delta Variant was spreading in communities across the country. To ensure the safety of focus group participants, all focus groups were conducted virtually via ZOOM. A focus group facilitator's guide was developed specifically for the CHNA to achieve the following goals:

(1) Identify health-related needs and assets in the community;
(2) Understand barriers and facilitators to health and wellness and how to address barriers; and
(3) Identify opportunities to address identified needs.

The focus group participants were assured of anonymity so that they would be comfortable being candid in their responses. The data provided by these leaders were analyzed for common and divergent themes and offer insight into the health concerns and underlying conditions that affect the patients, clients, constituents, and parishioners these leaders serve.

Limitations

As with all assessments, there are limitations related to the data sources and methods that should be understood by those who will rely on the assessment findings. For the purposes of informing this 1-year CHIP and anticipating more recent data to become available for the 2022 CHNA, secondary data that were more than 5 years old or only available at the State level are not presented in this report. This included data on suicide by city/town, teen pregnancy, tuberculosis and hepatitis B and C.

Data limitations include the following:

- The years for which the most current secondary data were available differ and some data are several years old due to the intervals at which the data are collected and reported,
- Some of the secondary data were not available at the local city/town level and were not stratified by demographic factors (e.g., race, ethnicity, gender, age) so the ability to determine difference across localities or by sub-populations was limited in some cases.
- Some of the secondary data used in the CHNA rely upon self-report, which may be influenced by fear of social stigma, recall bias, and misunderstanding of the questions being asked. Although these limitations exist, most of the sources used in the CHNA that rely upon self-reported data utilize large sample sizes and repeated administration, which allow for comparisons over time.
- The pandemic presented challenges to data collection, especially in directly engaging community residents. Thus, the CAHAC decided to engage leaders from a range of service sectors whose work has them in direct and ongoing contact with residents and able to represent the concerns within the communities they serve. While most of the participants live and work in the hospital's service area, they may not be representative of community residents more broadly. Although their involvement was intended to ensure that information about a range of issues and sub-populations would be available for the CHNA, the focus group findings are not necessarily representative of the larger population. Non-random recruitment and the small sample size mean that the focus group findings should be seen as representing the perspectives of the participants at a single point in time.

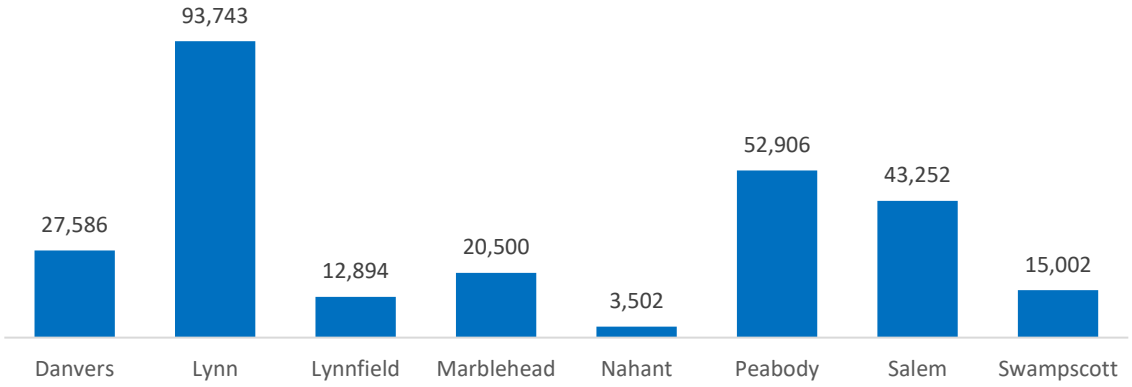
Findings

Demographic Characteristics

Population

Communities in the Salem Hospital service area vary in size from 3,502 in Nahant to 92,074 in Lynn (See Figure 3). At 269,385, the total population of the communities in the Salem Hospital service area represents 34.4% of the population of Essex County (783,676) and 3.9% of the population of Massachusetts (6,850,553).

Figure 3. Total Population, by City/Town, 2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

The populations within all of the hospital's priority communities grew between 2000 and 2019 except for Nahant, which decreased by 3.6% (See Table 2). The greatest rates of growth were in Lynnfield (11.7%), Peabody (9.9%), and Danvers (9.4%); all of which saw greater rates of growth than Essex County (8.3%) or Massachusetts (7.9%) overall.

Table 2. Total Population by State, County, and City/Town, 2000, 2019

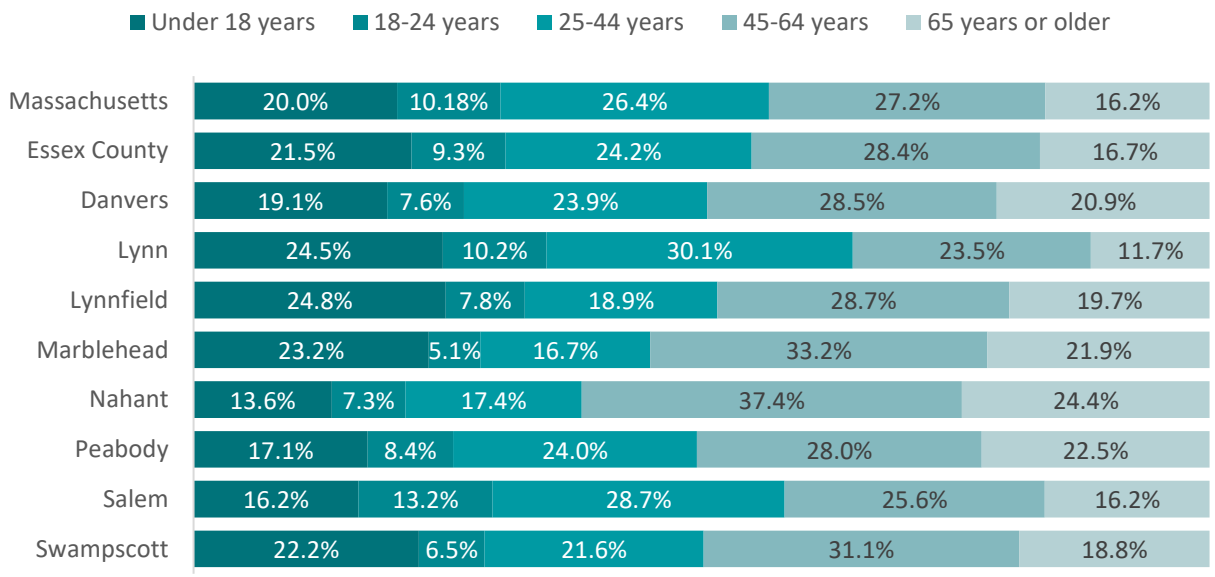
Geography	2000	2019	% Change
Massachusetts	6,348,983	6,850,553	7.9%
Essex County	723,415	783,676	8.3%
Danvers	25,211	27,586	9.4%
Lynn	89,118	93,743	5.2%
Lynnfield	11,542	12,894	11.7%
Marblehead	20,378	20,500	0.6%
Nahant	3,632	3,502	-3.6%
Peabody	48,127	52,906	9.9%
Salem	40,407	43,252	7.0%
Swampscott	14,413	15,002	4.1%

DATA SOURCE: US Department of Commerce, Bureau of the Census, 2000 Census, 5 year estimate American Community Survey, 2015-2019

Age

As shown in Figure 4, age distribution across Salem Hospital's priority communities varied in reference to the state and county and in comparison, to one another. Lynn and Salem had larger proportions of young people than all of the other communities in the service area, with 88.3% of Lynn residents and 83.8% of Salem residents under the age of 65. While the proportion of Salem's population age 65 and older mirrored that of the state, Lynn's population skewed younger than the state overall. The proportion of residents under the age of 18 was higher in four communities (Lynn, Lynnfield, Marblehead, and Swampscott) than in Essex County and state overall. At nearly one-quarter of their respective populations, Lynn and Lynnfield had the largest proportions of residents under the age of 18.

Figure 4. Age Distribution, by State and City/Town, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

While focus group participants indicated that there are too few behavioral health resources for youth in the hospital's priority communities, they also reported that youth have experienced social isolation, significant stress, anxiety, and depression during the pandemic and believe that substance use has increased as a way of self-medicating. Youth were described as often taking on stressful roles during the pandemic -- as caretaker for younger siblings so parents could work and jobs to help pay for food and housing when adults in the home were out of work. Assuming work and childcare responsibilities added to their stress and interfered with their ability to participate in remote learning and, more recently, school attendance. Transportation issues further limit youth access to school and youth services in the community.

Certain groups of young people were identified as particularly at risk for health and behavioral health problems. Unless they identify as such, unaccompanied youth and LGBTQ youth are typically hard to identify and thus it is generally challenging to engage them youth services. While the number of these youth seeking services has climbed dramatically, focus group participants indicated that many more are unaware of the services available in the community to help them.

With regard to younger children, focus group participants indicated that too few childcare slots exist in the target communities. Lack of affordable childcare, they explained, prevents many parents from being able to work, particularly those in lower paid jobs. With lower paid health and social service providers leaving the workforce to care for their children, the already strained health care and home health workforces have been further depleted.

Focus Group Feedback - 1

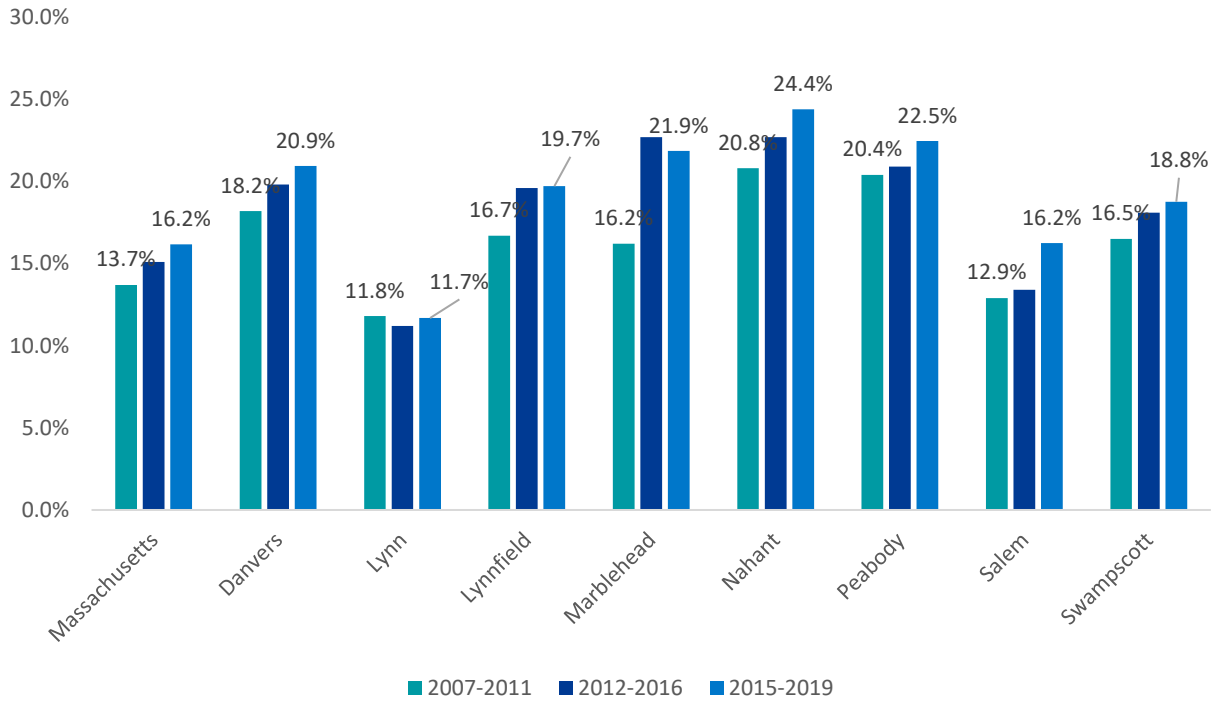
"The unaccompanied population is often underground. It is hard to find them and know what they are going through. It has been especially hard during COVID…but we are seeing the highest numbers we have ever seen."

"Gender and sexuality – it's an internal struggle. Knowing how to reach LGBTQ youth is tough. They have to come to us. Lots of them are not in supportive homes…We are seeing higher numbers of youth; the numbers have been way up from pre-COVID. They know they need us."

"Childcare is a major issue for low-paid workers. It doesn't pay to work. There are 150 people on the waiting list for day care at the YMCA."

Figure 4 also shows that the communities in the hospital's service area with the largest proportion of residents aged 65 and older were Nahant (24.4%), Peabody (22.5%), Marblehead (21.9%), and Danvers (20.9%). Below, Figure 5 shows the percent of the population in each priority community age 65 and older over three time periods. Danvers, Nahant, Peabody, and Swampscott experienced steady increases in the proportion of residents 65 and older. In contrast to the state and other priority communities, the 65 and over population in Lynn remained relatively steady.

Figure 5. Change in % Population 65 and over



DATA SOURCES: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2007 - 2011, 2012 – 2016, and 2015-2019

The focus group participants expressed several concerns related to seniors living in the hospital's service area. Isolation, already a problem for seniors prior to the pandemic, was exacerbated over the last two years as were behavioral health issues associated with isolation, including depression, anxiety, and substance use disorders. Participants indicated that,

increasingly, seniors are experiencing a combination of mental health problems and dementia and that, in general, the co-occurring conditions are not well understood or appropriately treated in health care institutions. They emphasized the importance of collaborative problem-solving between hospital and community partners as early as possible before discharge to help secure housing options that best support patient safety after discharge, particularly for patients with mental and physical health issues for whom housing options are extremely limited.

Complicating discharge planning, the focus group participants described shortages in the home health workforce, especially workers who speak languages other than English. They explained that the shortages cause lengthy delays and inconsistent care and endanger homebound seniors. Inadequate transportation, particularly for those in wheelchairs, poses a significant barrier to routine health care and other services and the ability to get to and from the hospital.

According to the focus group participants, the area's shortage of affordable housing affects seniors as well. Too often, they reported, seniors live in unmaintained housing and with unsanitary and unsafe conditions, including infestations. Many go without grab bars, chair lifts, and hospital beds, all resources that increase safety and may help to prevent hospitalization, because Medicare doesn't cover such items. Following a summer of record high temperatures and humidity, the participants explained that many seniors do not have air conditioning in their homes. And while pandemic precautions suggested that seniors isolate in their homes, evictions of seniors who smoked inside their apartments was said to have increased.

Focus Group Feedback - 2

"Mental health, substance use, and dementia – it's a critical storm."

"If the hospital wants to reduce re-hospitalizations, it needs to create a road map for how to care for elders in the community."

"Transportation is a huge issue, especially in Lynn. They [seniors] avoid going to the hospital because they have trouble getting there and once they are there, they can't leave."

Seniors were described as experiencing several barriers to a healthy diet, including too few options for affordable, healthy, and easy to prepare foods. Options are further limited for seniors with oral health issues, who have trouble chewing many fruits and vegetables, and those experiencing weakness and/or arthritis, who may have difficulty chopping and cutting. These challenges tend to result in poor nutrition. Participants explained that, along with the high cost of medications and lack of understanding about the importance of exercise and healthy eating, poor nutrition is directly related to high rates of uncontrolled blood pressure and blood sugars among seniors.

The focus group participants indicated that the hospital's palliative care team is excellent but also described the need for more providers to feel comfortable addressing and be educated on the issues affecting geriatric patients, that result in a range of challenges for seniors and their families. Failure to discuss or adhere to end-of-life decisions sometimes means seniors' wishes are not respected. Participants also indicated that too frequently a senior patient is admitted to a long-term care facility without ensuring that patient and his/her family adequately understand the patient's condition and prognosis, which can cause confusion for the patient and family and may affect their trust in facility staff and community providers who are conveying difficult information; the following exchange illustrates the problem.

Focus Group Feedback - 3

"They [patients] are often admitted to skilled nursing without real understanding of the patient's illness beforehand."

"…Specialists don't tell them [patients and the family] that there is no more to do, that things will get worse. Then we tell them the truth and they don't believe us."

"When they don't believe end of life is coming, because they are not prepared, families often deny end of life pain meds…"

Racial and Ethnic Diversity

Lynn is the most racially and ethnically diverse of the priority communities, and more diverse than Essex County and Massachusetts overall. The racial composition of Lynn is predominantly non-White (64.1%); 42.8% of Lynn's population is of Hispanic origin. As shown in Table 3, with the exception of Lynn, Salem is more racially diverse than the other priority communities; 17.8% of Salem's population is of Hispanic origin. Hispanic/Latino residents comprise the largest proportion of non-White residents in all of the target communities except Nahant and Lynnfield, where Asian, non-Hispanic/Latino residents make up a greater proportion of the population at 2.2% and 4.4%, respectively.

Table 3. Racial/Ethnic Composition by State, County, and City/Town, 2015-2019

Geography	White, non-Hispanic/ Latino	Black, non-Hispanic/ Latino	Asian, non-Hispanic/ Latino	Hispanic/ Latino, any race	Other, non-Hispanic/ Latino
Massachusetts	71.6%	6.9%	6.6%	11.8%	3.1%
Essex County	70.3%	3.2%	3.4%	20.9%	2.1%
Danvers	87.6%	2.3%	2.6%	5.1%	2.5%
Lynn	35.9%	10.8%	7.2%	42.8%	3.3%
Lynnfield	90.7%	0.6%	4.4%	2.4%	1.9%
Marblehead	91.1%	1.4%	1.4%	5.0%	1.1%
Nahant	95.4%	0.0%	2.2%	1.5%	0.9%
Peabody	82.7%	3.3%	1.1%	9.9%	3.0%
Salem	71.9%	4.7%	2.5%	17.8%	3.1%
Swampscott	91.7%	1.5%	2.2%	2.5%	2.1%

DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

The majority of public school students in Salem (57.4%) and Lynn (86.9%) are non-White, whereas the majority of students in the remaining target communities and the state overall are White (See Table 4). Hispanic/Latinos make up the largest proportion of non-White public school students in all of the target communities except Lynnfield, where Asian, non-Hispanic/Latino students account for 7% of public school students.

Table 4. Racial Composition of Public School District Student Enrollment by State and City/Town, 2020-2021

Geography	African American	Asian	Hispanic	Multi-Race, Non-Hispanic	Native American	Native Hawaiian, Pacific Islander	White
Massachusetts	9.3%	7.2%	22.3%	4.1%	0.2%	0.1%	56.7%
Danvers	2.4%	2.4%	8.8%	2.5%	0.1%	0.0%	83.8%
Lynn	8.2%	7.6%	67.6%	3.2%	0.3%	0.0%	13.1%
Lynnfield	1.9%	7.0%	5.8%	3.2%	0.0%	0.0%	82.0%
Marblehead	2.9%	1.4%	6.8%	3.4%	0.0%	0.0%	85.4%
Nahant	0.0%	0.7%	6.1%	6.8%	0.0%	0.0%	86.4%
Peabody	3.9%	2.0%	18.7%	2.2%	0.2%	0.0%	73.0%
Salem	6.7%	2.7%	43.5%	4.5%	0.0%	0.0%	42.6%
Swampscott	3.9%	2.6%	12.1%	3.0%	0.2%	0.0%	78.2%

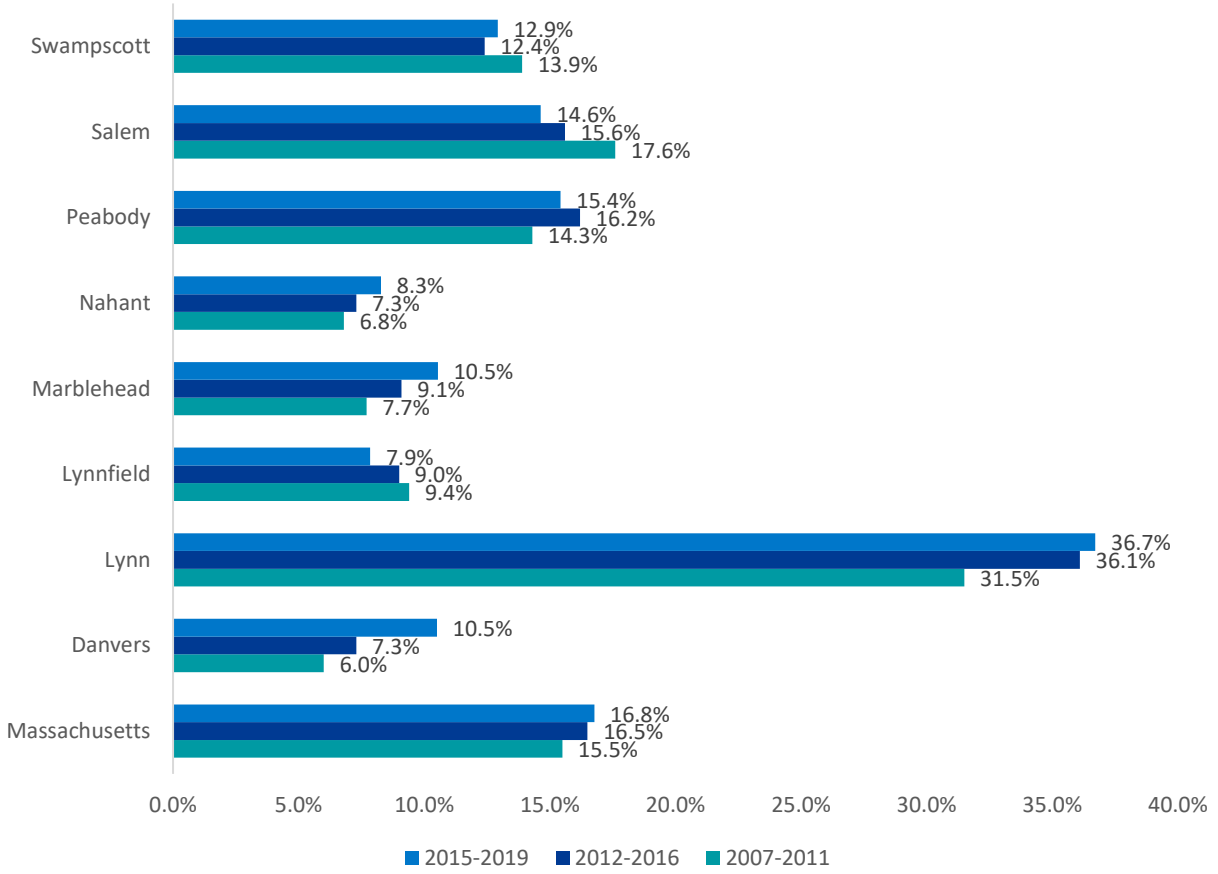
DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2020-2021

While racial and ethnic diversity in Lynn was described as a community asset, focus group participants also noted that communities of color and immigrant communities were disproportionately affected by COVID and are more likely to experience inequities in health and the social determinants of health.

Immigration and Language

As shown in Figure 6, the share of residents in the Salem Hospital service area over age 5 who were born outside of the U.S. ranged from 7.9% in Lynnfield to 36.7% in Lynn during the 2015-2019 time period. In 2015-2019, at 36.7%, more than one in three Lynn residents over age 5 was born abroad. In 2015-2019, Lynn was the only community within the service area that had a higher proportion of these foreign-born residents than in Massachusetts overall at more than twice the proportion for the state overall (36.7% versus 16.8%). Of the three time periods featured in Figure 6, the percentage of residents aged 5 and over who were born outside of the U.S. was highest in the most recent time period (2015-2019) in Nahant, Lynn, and Danvers, while in Swampscott, Salem, and Lynnfield, the percentage of this group was smaller in the 2015-2019 time period than in 2007-2011.

Figure 6. Percent of Population Born Outside of the U.S. by State and City/Town, 2007-2011, 2012-2016, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019, 2012-2016, and 2007-2011

Focus group participants explained that, for newer immigrants in particular, the health system in the U.S. is confusing and there may be distrust. Further, health literacy may be quite low, especially for those whose country of origin had limited or no organized health services.

Focus Group Feedback - 4

"Newcomers have really basic questions or they don't know what they don't know. 'Why meet with a doctor?' There are a lot of myths and rumors about medical care. Dental or eye care, many don't know why you would use them. And then there is a lot of sharing of medications. Some [immigrants in the community] come from countries with no health services at all."

"When people don't understand the health care system, they aren't likely to have primary care, which contributes to increased use of the ER for non-urgent issues."

Focus group participants also discussed how the degree of assimilation into American culture affects access to services and opportunity to improve one's health. They argued that, by virtue of what they have gone through before coming to the U.S. and while emigrating and settling here, immigrants are resilient. They explained that many come to the U.S. having extreme mental health issues related to trauma they experienced in their home countries. Those who are less acculturated, they said, may not fully engage in the service opportunities available to them.

Focus Group Feedback - 5

"Immigrants are courageous, brave, resilient. They have the ability to recognize that they need to move [away from their homelands] and the hope, humility, and willingness to work to build a new life. But there is a difference between those immigrants that become well-settled and newer and less settled immigrants. There are lots of personalities within the immigrant community and there are some who never lose hope that they might return home, which may affect their desire to learn English and to preserve their culture; both of which may slow down integration and acculturation. Inside the language bubble, there is a lot of misinformation [about health] particularly about vaccines, and [there is also] fear and that may affect their willingness and ability to access services...And those who are undocumented navigate at the edge of the system and they can't take full advantage of what is available, especially during a crisis."

Another focus group participant cautioned that, as service providers, we should not assume that the challenges we see most clearly affecting immigrant communities are necessarily the ones about which those communities are most concerned.

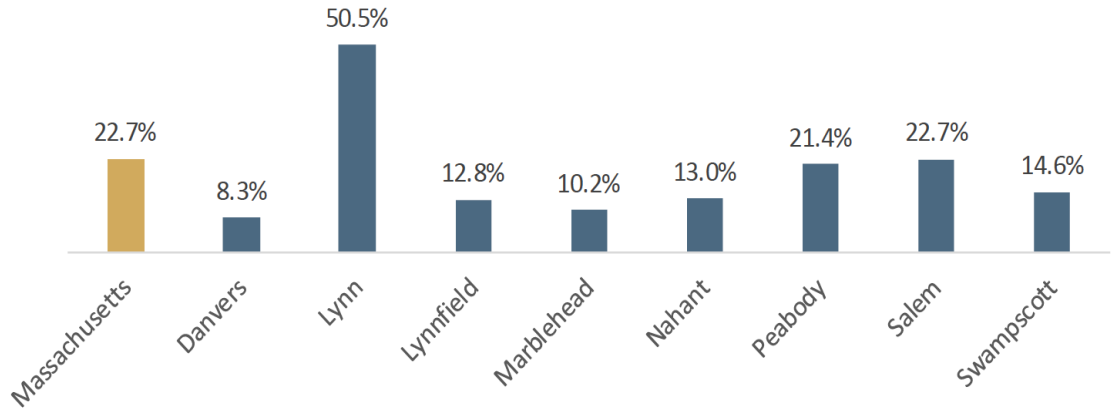
Focus Group Feedback - 6

"What we see as a challenge may be very different from how they [immigrant communities] see it. As a provider, I may feel there is so much they need to learn and understand about health and the medical system. But, for them, they may see housing as the root of all of their problems."

One focus group participant explained that, depending upon their residency status, some immigrants may fear being "dimed out" by services providers when they seek services.

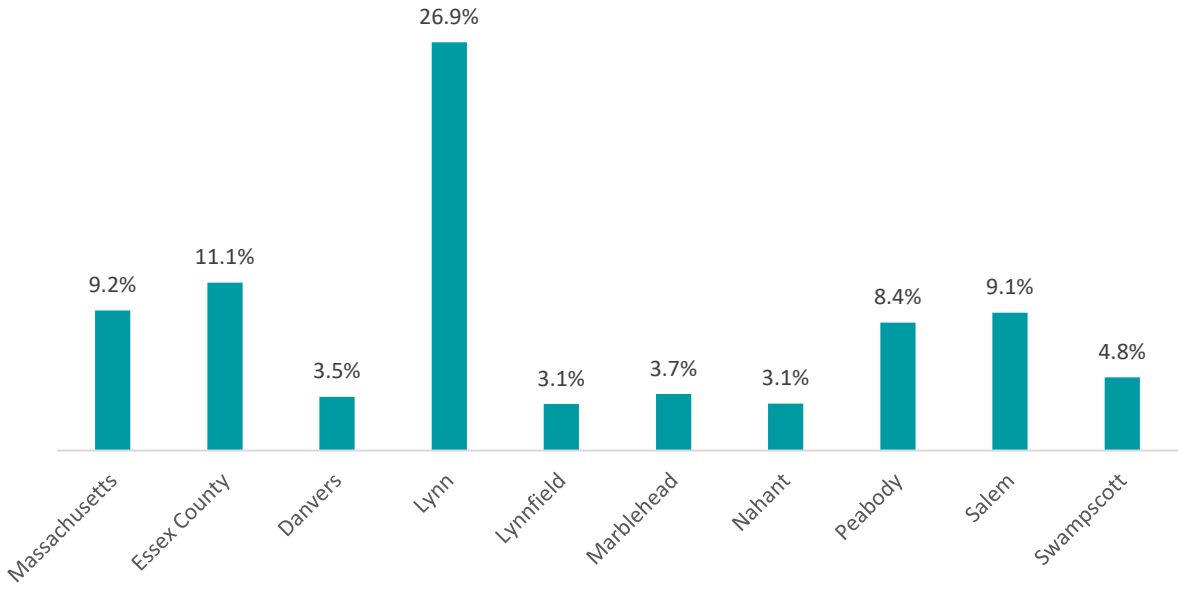
As one might expect given the proportion of foreign-born residents in Lynn, there was great linguistic diversity as well. Just over half the population of residents aged 5 and over in Lynn spoke a language other than English at home in 2012-2016 (See Figure 7) and nearly 27% age 5 and over were non-English speaking in 2015-2019 (Figure 8).

Figure 7: Percent of Population Age 5 and Over who Speak Language Other than English at Home, by State and City/Town, 2012-2016



DATA SOURCE: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2012-2016

Figure 8. Percent of Population Age 5 and Over who were non-English speaking, by State, County, and City/Town, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

Among Public School students in Lynn, 61.3% do not have English as their first language and 31.5% are English Language Learners (Table 5).

Table 5: Percent of Public School District Students whose First Language is Not English and who are English Language Learners by State and City/Town, 2020-2021

Geography	First Language Not English	English Language Learner
Massachusetts	23.4%	10.5%
Danvers	4.7%	1.3%
Lynn	61.3%	31.5%
Lynnfield	8.3%	2.4%
Marblehead	7.8%	4.4%
Nahant	0.0%	0.0%
Peabody	15.1%	9.3%
Salem	32.2%	13.7%
Swampscott	15.4%	6.1%

DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2020-2021

The most recently available data on languages spoken at home in Lynn is from 2011-2015 when nearly a third (31.3%) of residents spoke Spanish or Spanish Creole. The next most common language spoken at home was Mon-Khmer, Cambodian at 4.1% (See Table 5).

Table 6: Most Common Languages Other than English Spoken at Home in Lynn, 2011-2015

	% of Total Population
Spanish or Spanish Creole	31.3%
Mon-Khmer, Cambodian	4.1%
French Creole	1.9%
African Languages	1.4%
Portuguese	1.3%
Russian	1.2%

DATA SOURCE: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2011-2015

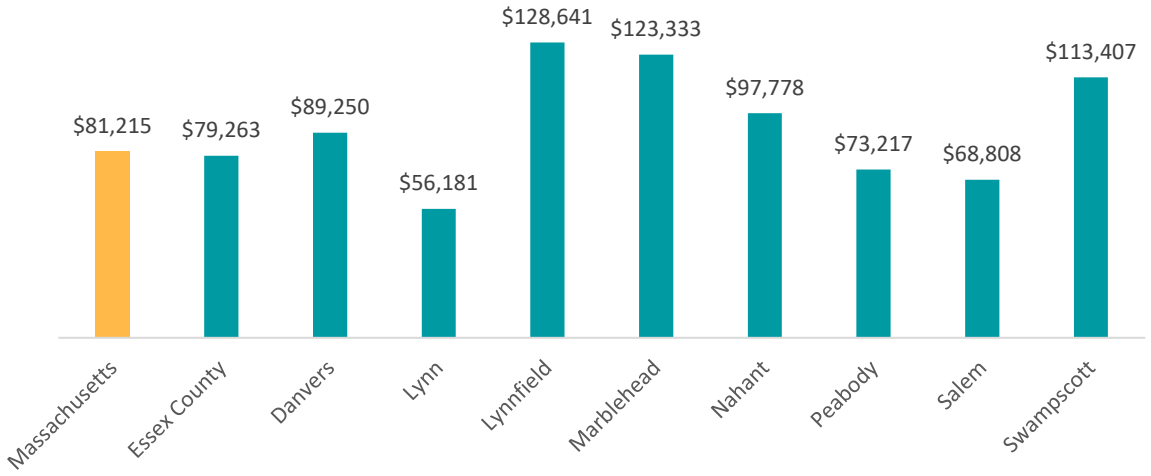
The focus group participants explained that language presents a significant obstacle to one's ability to access a range of services within the priority communities, particularly behavioral health services because there are so few clinicians available that speak a language other than English. They also suggested that, in order to be effective at serving non-English speaking communities, health care institutions must be approachable with good signage and personnel who speak languages other than English. Further, they noted, a sustained effort at building relationships in the community and working to improve health literacy is important.

Income and Poverty

Poverty, income inequality, and the escalating costs of housing within the hospital's service area were discussed in all of the focus groups. One focus group participant explained that *"The poverty is persistent and intergenerational."* Poverty was described as underlying food insecurity, housing instability and homelessness, and other drivers of health status. For example, while health insurance coverage is far better than it once was, limited access to reliable transportation, broadband, and cell service impede in-person and remote access to critical services for low-income residents. Participants pointed to unemployment and low wages, as well as the escalating cost of living, particularly related to housing, as issues that make it nearly impossible for some to climb out of poverty and secure the resources necessary to support good health.

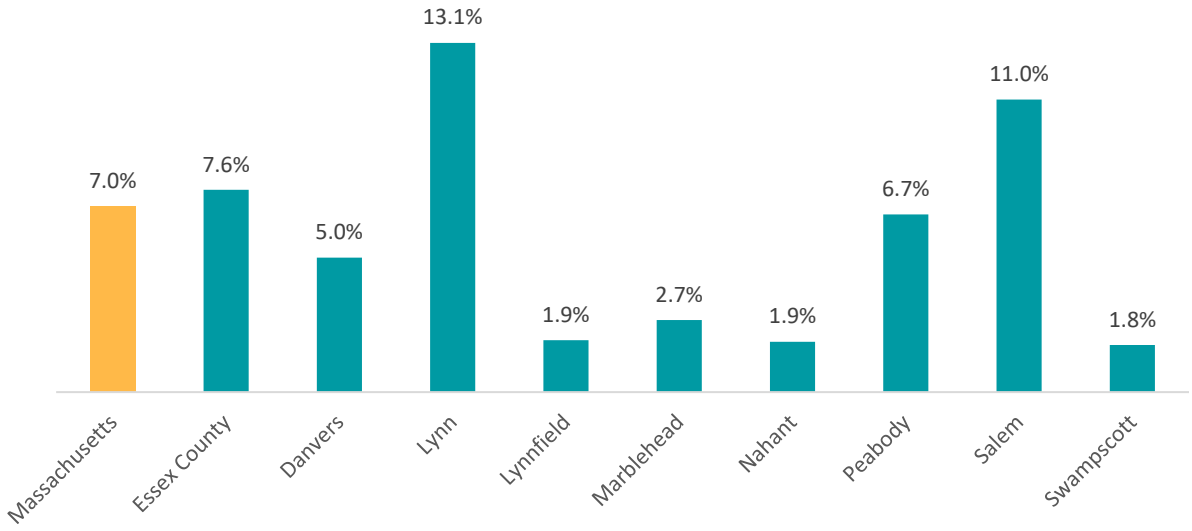
As shown in Figure 9, between 2015 and 2019, there was a wide range of median household incomes across the priority communities; the lowest was in Lynn at $56,181 and the highest, in Lynnfield, was more than double that of Lynn at $128,641. The median household incomes in Essex County and Massachusetts for this time period were $79,263 and $81,215, respectively. Lynn, Peabody, and Salem had the lowest median household incomes and fell below the median incomes for both Essex County and the state. Conversely, median incomes in Danvers, Nahant, Swampscott, Marblehead, and Lynnfield exceeded both the county and state median incomes.

Figure 9. Median Household Income by State, County, and City/Town, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

Figure 10. Percent of Families whose Income in the Past 12 Months is Below Poverty Level by State, County, and City/Town, 2015-2019



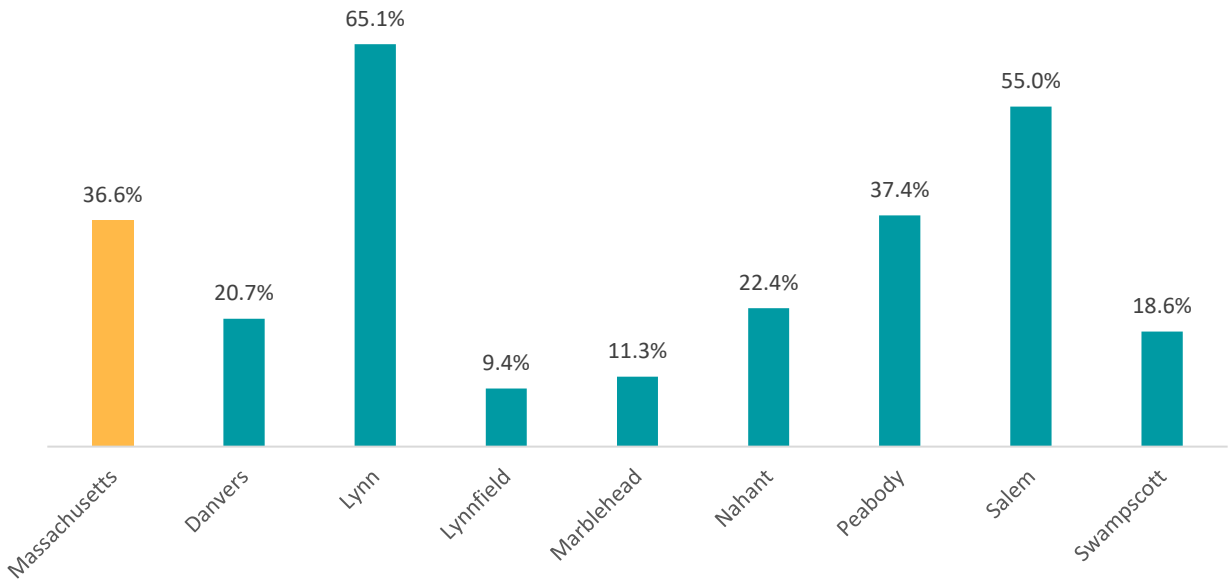
DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

In Massachusetts, between 2015 and 2019, 7% of family incomes over the last 12 months were below the poverty level and within Essex County the rate was 7.6%. While in Danvers, Lynnfield, Marblehead, Nahant, Peabody, and Swampscott, the percentages were lower than the state and county rates, in Lynn and Salem, the rates were higher. At 13.1% and 11%,

respectively, Lynn and Salem had the highest rates of families living in poverty among the hospital's priority communities (Figure 10).

As shown in Figure 11 below, in 2020-2021, 36.6% of public school students in Massachusetts were economically-disadvantaged. While there were economically-disadvantaged public school students living in all of the priority communities, the proportion of such students in Massachusetts exceeded those in Danvers, Nahant, Lynnfield, Marblehead, and Swampscott. Peabody's percentage of public school students who were economically-disadvantaged was slightly higher than statewide, while Salem and Lynn's were the highest among the priority communities and substantially higher than the state at 55% and 65.1%, respectively. Figures 10 and 11 illustrate the economic disparities among the priority communities, as well as the significant disparities that exist within these communities.

Figure 11. Percent of Public School District Students who are Economically Disadvantaged by State and City/Town, 2020-2021

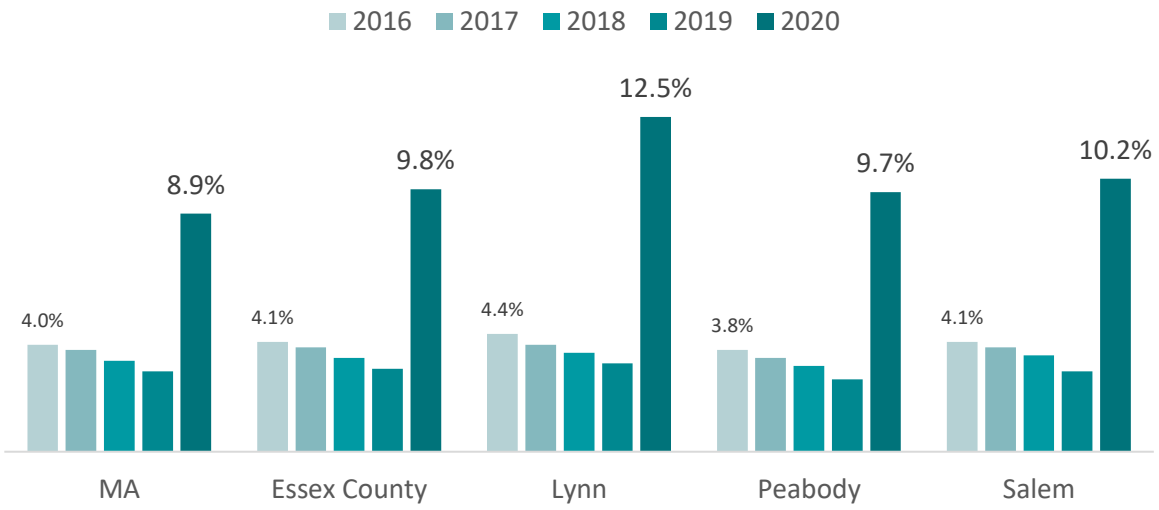


DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2020-2021

Employment

Between 2016 and 2020, unemployment was higher in Lynn than in Peabody and Salem, as well as the county and state overall. While unemployment rose in the state, county, and in all three communities during the pandemic (i.e., 2020), it was highest in Lynn at 12.5% (See Figure 12).

Figure 12. Annual Percent Unemployment among Population Age 16 and Older, by State, County, and City/Town for 2016 through 2020

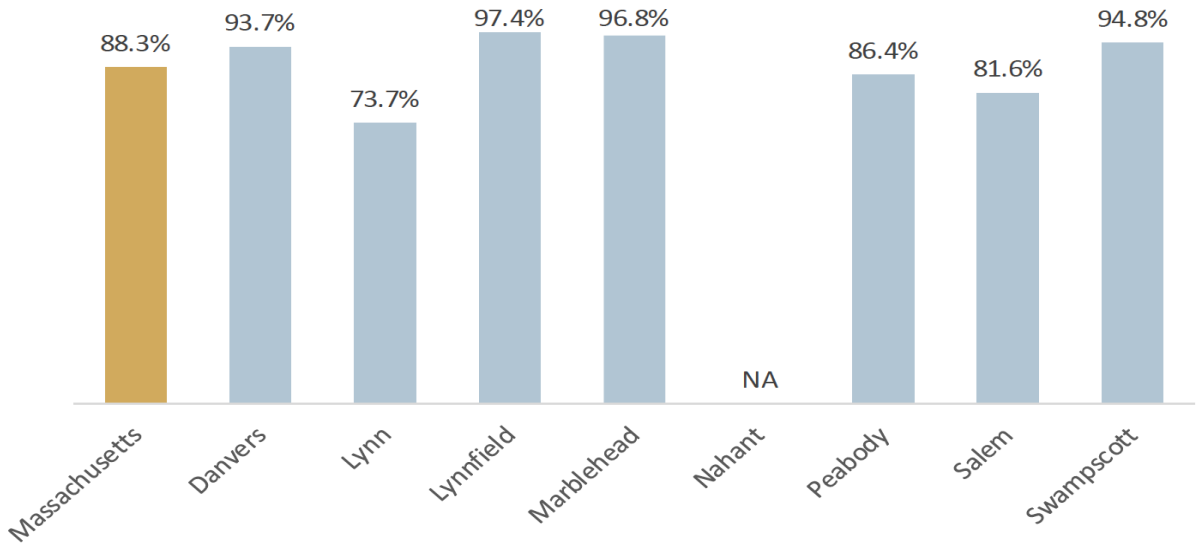


DATA SOURCE: Bureau of Labor Statistics Local Area Unemployment Statistics

Education

Within the Salem Hospital service area, four communities (Danvers, Lynnfield, Marblehead, Swampscott) had higher rates of graduation from public high schools within four years than the statewide rate of 88.3%, whereas three other communities (Lynn, Peabody, and Salem) had lower rates than the state (See Figure 13). At 73.7%, Lynn had the lowest rate of public high school graduation within four years compared to the other communities for which data were available.

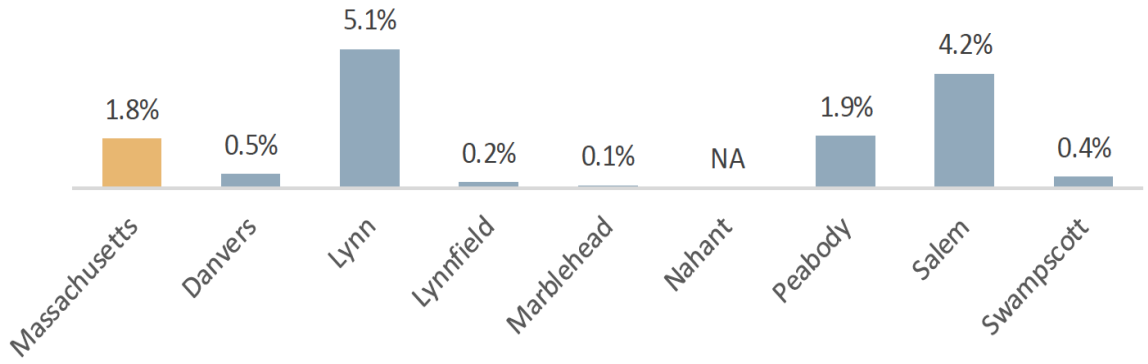
Figure 13. Percent of Public School District High School Students who Graduated in Four Years, by State and City/Town, 2017-2018



DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2017-2018

As shown in Figure 14. The public school high school drop out rates in 2017-2018 were lower in multiple communities within the hospital's services area (i.e., Danvers, Lynnfield, Marblehead, and Swampscott) than the state rate of 1.8%, whereas the rates in Peabody, Salem, and Lynn exceeded the statewide rate. At 5.1%, Lynn 's drop-out rate among its public school district high school students was the highest of the target communities and nearly three times the statewide rate.

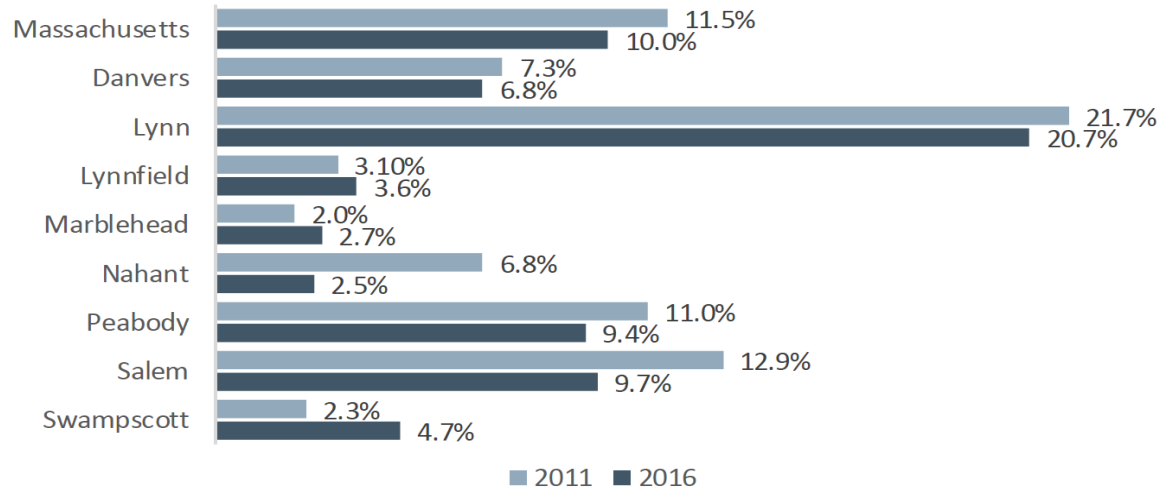
Figure 143. Percent of Public School District High School Students who Dropped Out, by State and City/Town, 2017-2018



DATA SOURCE: School and District Profiles, Massachusetts Department of Elementary and Secondary Education, 2017-2018

As shown in Figure 15, the proportion of the population age 25 and over with less than a high school education or equivalency decreased in three of the priority communities (i.e., Lynnfield, Swampscott, and Marblehead) from the 2007-2011 time period to 2012-2016 and were lower than the state rates for both time periods (10% to 11.5%, respectively). Danvers, Lynn, Nahant, Peabody, and Salem all saw increases in the proportion of their populations ages 25 and over with less than a high school education or equivalent over time. In 2007-2011, Salem had a slightly smaller proportion of adults aged 25 or more with a high school education or less than the state overall. However, in 2012-2016, the proportion of these residents in Salem surpassed that of the state (12.9% vs. 11.5%, respectively). In Lynn, the proportion of residents aged 25 and older with a high school education or less was twice that of the state in 2007-2011 and nearly double the state's percentage in 2012-2016. At 20.7% in 2007-2011 and 21.7% in 2012-2016, Lynn had a substantially larger proportion of residents 25 and over with less than a high school education than the other target communities.

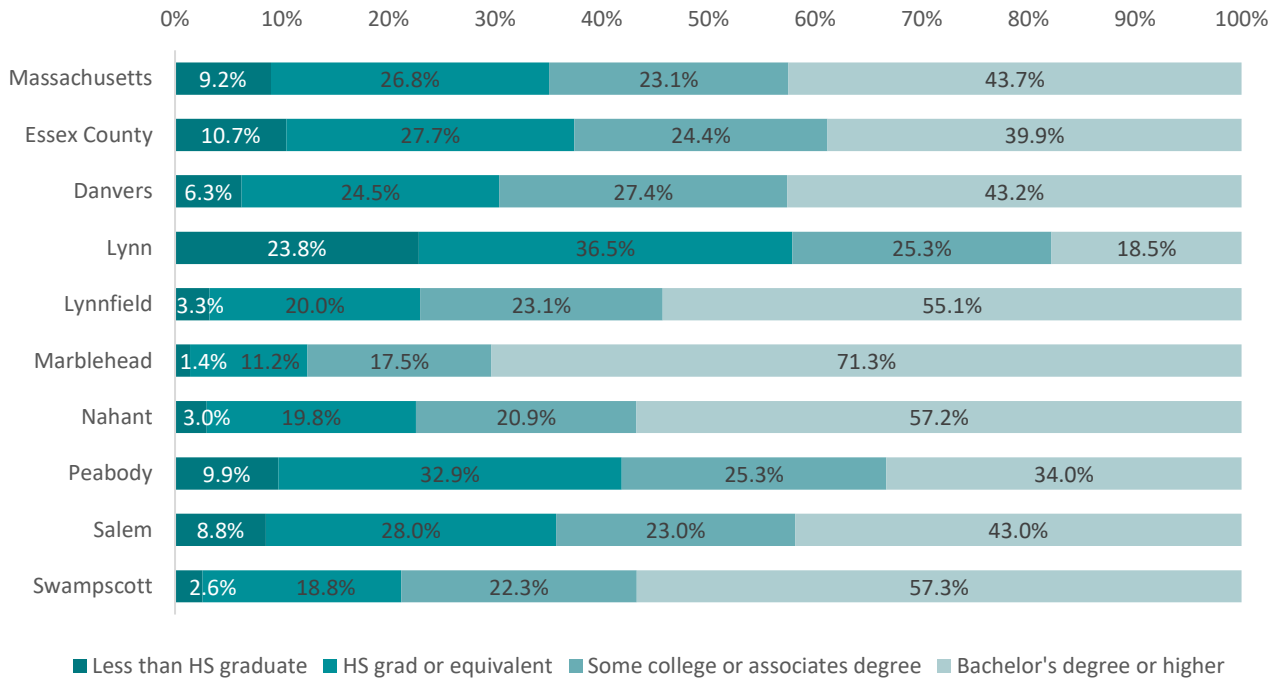
Figure 15. Percent of Adults Age 25 and Over with Less than High School Education or Equivalent, by State and City/Town, 2007-2011 and 2012-2016



DATA SOURCE: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2007-2011, 2012-2016

In Swampscott, Nahant, Marblehead, and Lynnfield, more than half of the population aged 25 and over had a Bachelor's degree or more in 2015-2019, which was higher than the rates for the state and Essex County, 43.7% and 39.9%, respectively (See Figure 16). Although the proportion of college graduates in Salem, Peabody, and Danvers was lower than in the state overall, in each of these communities more than one-third of the population age 25 and over had a Bachelor's degree or higher and roughly another quarter had some college or an associate's degree. In Lynn, only 18.5% of adults 25 and over had a Bachelor's degree or more. The majority (60.3%) of Lynn's adults 25 and over had no college education.

Figure 16. Educational Attainment of Adults Aged 25 years and older by State, County, and City/Town, 2015-2019

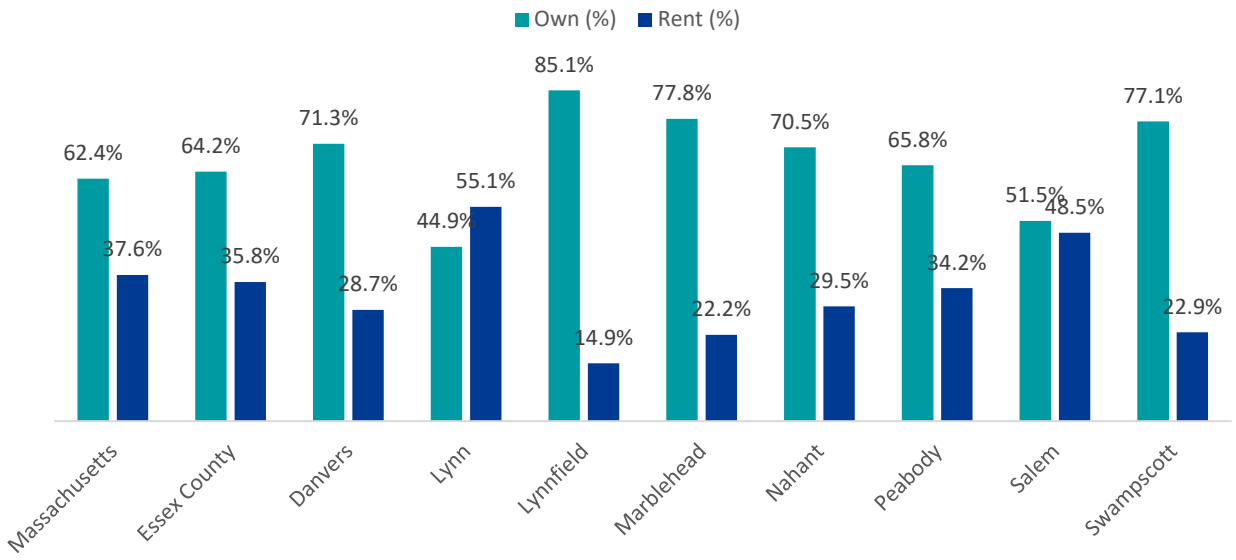


DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

Housing and Homelessness

In 2015-2019, with the exception of Lynn, there were more home-owners than renters (See Figure 17) in the hospital's service area. Rates of home ownership in each of the priority communities except Lynn and Salem exceeded the state rate of 62.4% and Essex County's rate of 64.2%. In Salem, renters comprised less than half of households or 48.5%, whereas in Lynn, renters make up more than 50% of households at 55.1%.

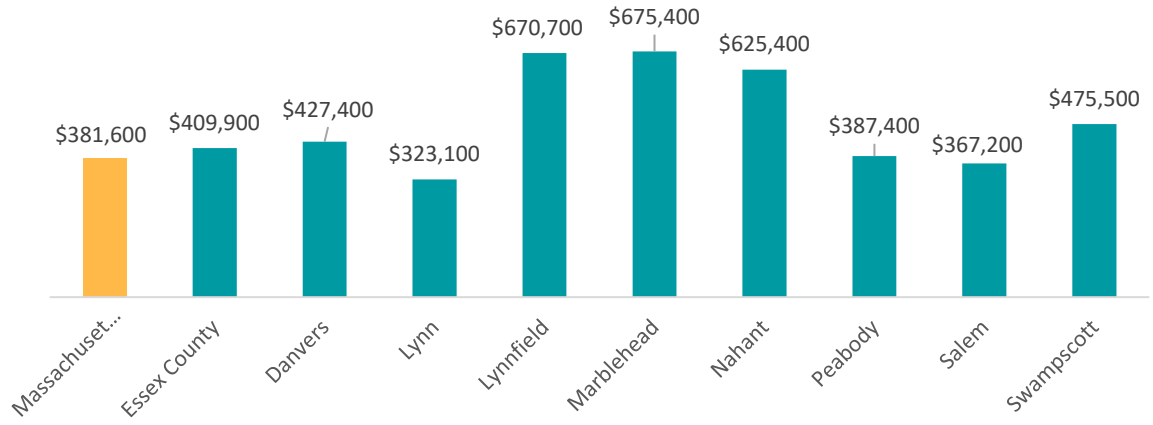
Figure 17. Percent of Households That Own or Rent Homes by State, County, and City/Town, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

Figure 18. shows the significant variation in median home values of owner-occupied homes in the Salem hospital service area in 2015-2019, from a high of $675,400 in Marblehead to a low of $323,100 in Lynn. The median home value of such homes in Salem (at $367,200), Peabody ($387,400), and Lynn were all lower than the median for Essex County (at $409,900). Median values for owner-occupied homes in Salem and Lynn were also lower than the median for the state (at $381,600).

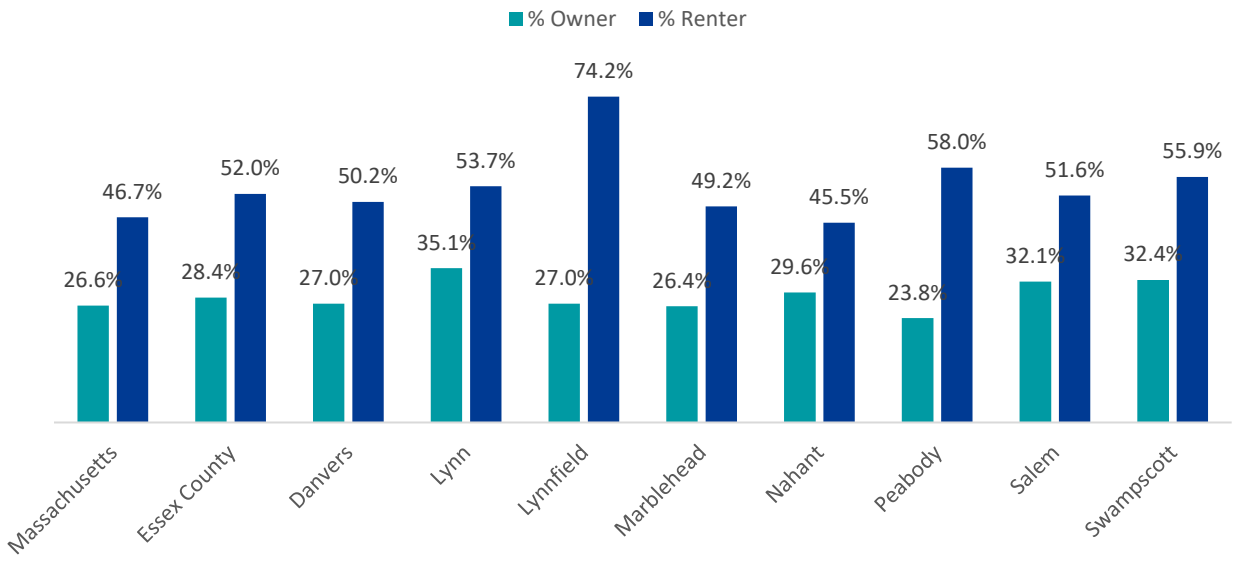
Figure 18. Median Value of Owner-Occupied Home by State, County, and City/Town, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

As shown in Figure 19, in 2015-2019, the proportion of home-owners for whom housing costs comprised 35% or more of their household income was less than one-third statewide, in Essex County, and in Danvers, Lynnfield, Marblehead, Nahant, Peabody, Salem, and Swampscott. In Lynn, 35.1% of home owners spend more than 35% of their household income on their housing. Between 45.5% and 74.2% of renters in all of the priority communities spend 35% or more on housing costs and with the exception of Lynn and Salem, the percent of residents whose housing costs comprised 35% or more of their household income.

Figure 19. Percent of Residents Whose Housing Costs are 35% or More of Household Income by State, County, and City/Town, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019
NOTE: owner costs for owners with a mortgage

Taken together, Figures 17 through 19 show that, in Lynn, a smaller proportion of residents are building equity through home ownership than in other priority communities. While housing costs are a significant burden for a larger percentage of home owners in Lynn than elsewhere in the hospital service area, the values of their homes are lower than in neighboring communities.

Homelessness and housing instability were regarded as significant issues among focus group participants. Homeless youth were described as particularly at risk for a range of health and behavioral health issues. As shown in Table 7, unaccompanied youth account for .4% of youth in Massachusetts. Although a small percentage of the youth population, unaccompanied youth, according to participants, are among the most at-risk youth in the community. Because of shelter regulations, most shelters are unable to accommodate unaccompanied youth, so options for housing these young people is extremely limited. Often such youth are reluctant to identify themselves as unaccompanied and are, therefore, challenging to identify and engage in services.

Table 7. Percent of Total Population Under 19 Who Are Homeless Youth by Primary Nighttime Residence in Massachusetts, 2018-2019

Nighttime Residence	Number Homeless Youth	Total Population Under 18	Percent
In shelters	7,545	319,528	2.4%
Doubled-up	15,396	319,528	4.8%
Unaccompanied youth	1,408	319,528	0.4%
Unsheltered	206	319,528	0.1%
Hotels/motels	1,625	319,528	0.5%

DATA SOURCE: Massachusetts Coalition for the Homeless
NOTE: Denominator of Massachusetts statewide population under age 18 in 2016 (Source: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2012-2016)

Housing was identified as one of the most important community needs by focus group participants and was defined as including all types of housing, from emergency/temporary shelter to longer-term/stabilization to permanent housing, including permanent supportive housing. They shared that, as the North Shore becomes increasingly gentrified, home prices and rents have risen, the supply of affordable housing has decreased, and the number of people who are either homeless or who are living in unsafe, over-crowded conditions has grown.

They identified housing as central to health and said that the lack of safe, stable, affordable housing causes and exacerbates other social determinants of health and health problems. Problems with overcrowding, particularly in immigrant communities, was particularly problematic during the pandemic because it contributed to the spread of the infection within households.

Residents who find themselves frequently moving from place to place (e.g., staying with various friends or family, in shelter, on the streets) were described as at risk for disrupted health care and other services important to their health. They also face barriers due to stigma and by virtue of not having a permanent address.

Focus Group Feedback - 7

"Individuals who are experiencing homelessness or unstable housing generally don't have home addresses that they will need when they apply for social security cards or licenses [documents necessary to obtain benefits and get a job] and most can't afford P.O. boxes."

"People who are staying in shelter can use the shelter address on an employment application, but then they face stigma from potential employers because when they [the employers] see the [shelter] address, the application goes to the bottom of the pile…"

As noted earlier, seniors are particularly at-risk for housing problems. As participants explained, there are *"far too few affordable housing units for seniors"* in the community.

Focus group participants also explained that those in need of housing face significant challenges getting through to and working with the local housing authorities. Long waits on hold were described as fairly typical when calling a housing authority, a particular problem for those with limited cell phone minutes. One participant explained that, while service providers may be willing to serve as a proxy to help clients access housing, the housing authority will not work with proxies. As one participant explained,

"It's hard to get on the [housing] list and it's really easy to fall off of it."

Participants also reported that sometimes shelter beds are not available after patients with unstable housing are discharged from a hospital.

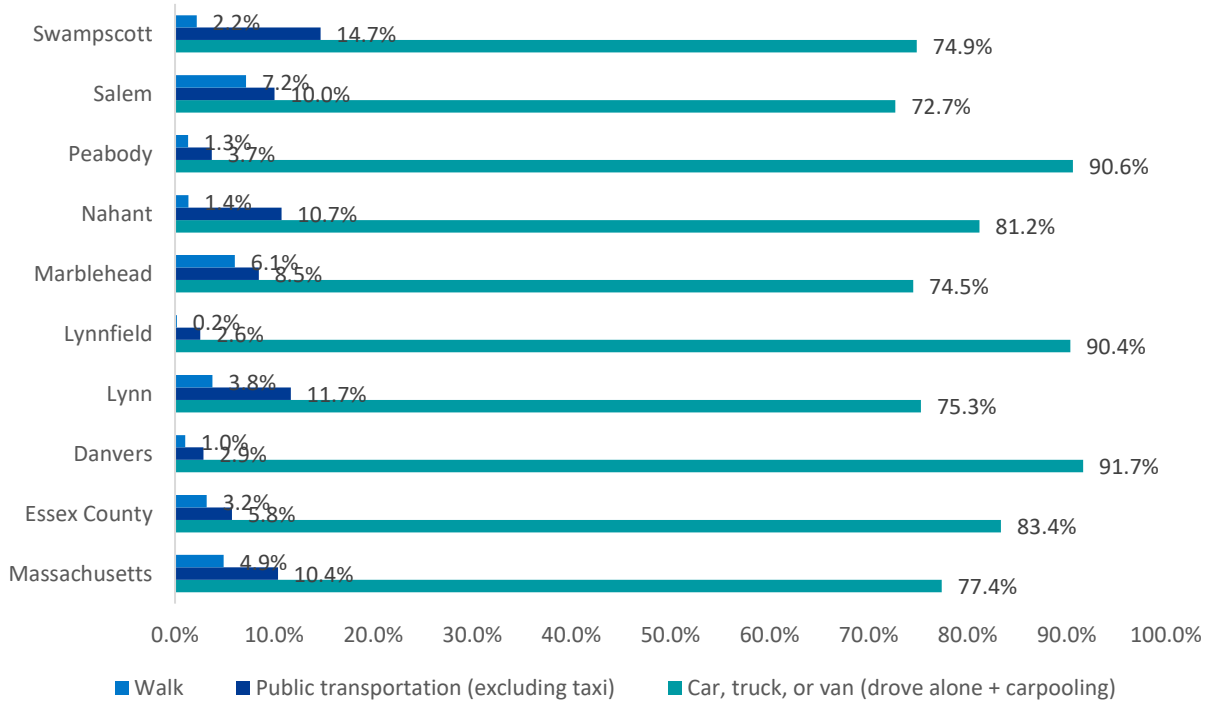
"The patient is dropped off and we don't have a bed and we have to scramble to find some place for them to go."

They also reported that, when patients are discharged with significant mental health or physical issues, their options for housing are limited, making it even more difficult to secure safe housing. They would like to see the hospital address housing issues, including outreach to community programs, as early as possible in a patient's hospital stay.

Transportation

Figure 20 shows that, by far, the dominant form of transportation for workers aged 16 and over in the priority communities is by personal vehicle (i.e., car, truck, or van) either driven alone or in a carpool.

Figure 20. Mode of Transportation to Work for Workers Aged 16+ Years by State, County, and City/Town, 2015-2019



DATA SOURCE: US Department of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

Lack of transportation was identified by focus group participants as a major barrier to health care and social services. They reported that lack of transportation to and from medical or other appointments is a significant barrier to the delivery of preventive services, continuity of care, and appropriate use of ER and ambulance services. As noted earlier, lack of transportation was described as particularly challenging for youth and seniors.

For those who need but cannot access detox and behavioral health services locally and who must, therefore, go outside of the immediate area for such services, transportation may be the reason they get into services or not. Inadequate

transportation was reported as limiting access to food programs and healthy foods and exacerbating food insecurity and poor nutrition. Transportation was also identified as a barrier to job seeking and workforce participation.

While most agreed that transportation has always been a challenge on the North Shore, several participants believe the problem is growing.

Focus Group Feedback - 8

"I know a patient who had to delay chemo treatments because they couldn't get transportation and seniors who have canceled outpatient PT because they couldn't get there."

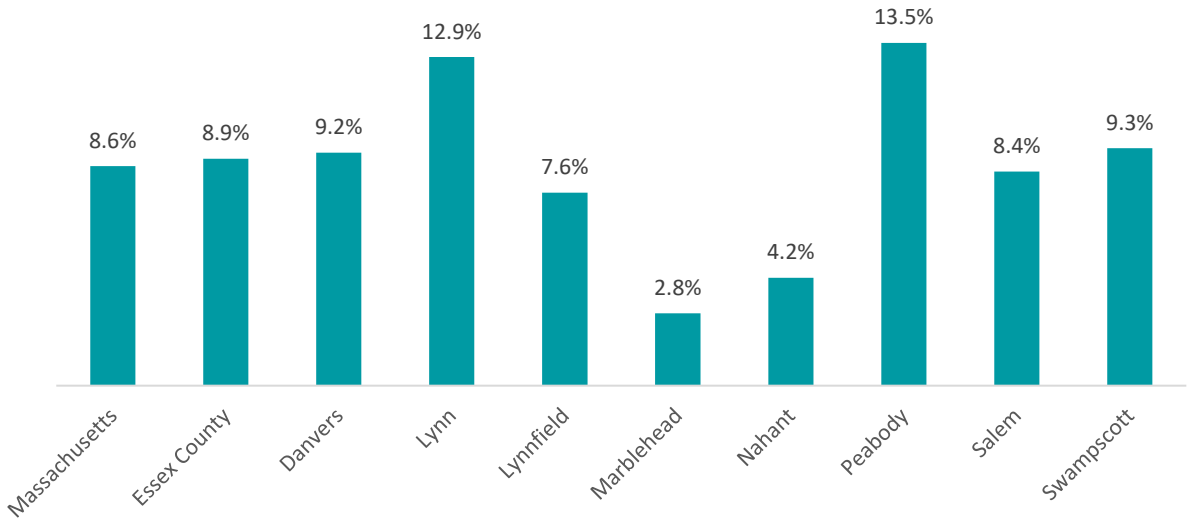
"They [community members experiencing food insecurity] can't get access to food. Food programs have certain hours and if they don't have transportation, they just can't get there. We need to create ways to get food to people."

"Transportation is still a problem. We can't seem to deal with it. It's getting worse!"

Technology

Focus group participants argued that access to technology prior to the pandemic was a challenge for many residents in the hospital's service area. However, the pandemic, and our reliance on technology for remote learning, working at home, and to access a wide range of services highlighted the unequal access to the technology needed to safely social distance and access school, work, and services from home. As shown in Figure 21, between 2015 and 2019, four of the priority communities (Danvers, Lynn, Peabody, Swampscott) had more households without any type of computer than in Massachusetts overall or in Essex County.

Figure 21. Estimated percent of households without any type of computer, between 2015-2019

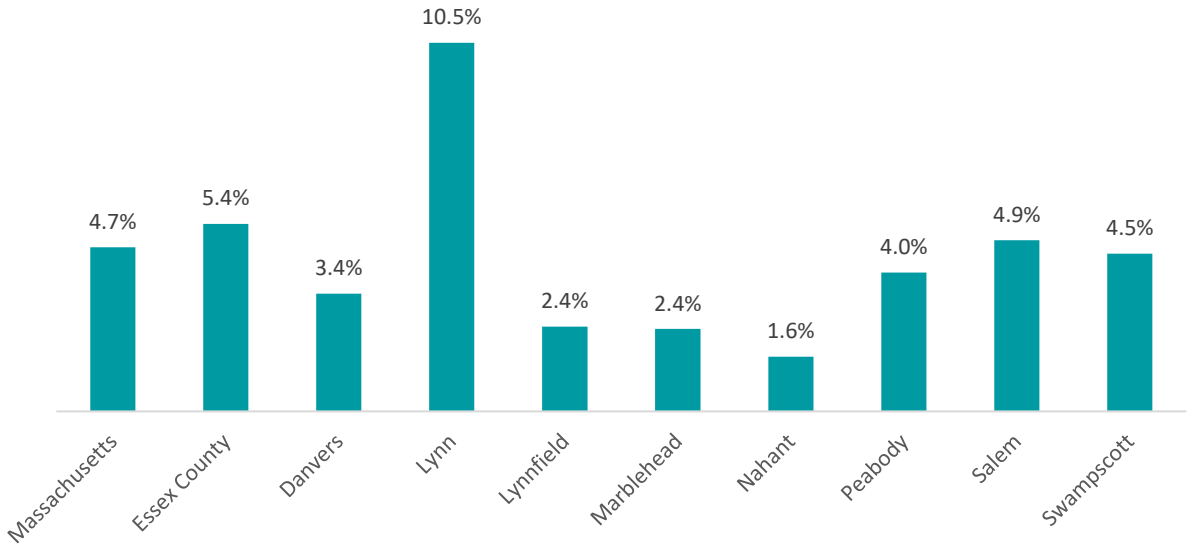


Data Source: PolicyMAP

Lynn and Peabody, at 12.9% and 13.5%, respectively, had the greatest proportion of households within the target communities with no type of computer. Additional data received from the City of Lynn indicate that an additional 20% of Lynn households are without internet access.

Figure 22 shows that Lynn, at 10.5%, had more households with a smartphone but no other computer than in other target communities.

Figure 22. Estimated percent of households with a smartphone and no other type of computer, between 2015-2019



Data Source: PolicyMAP

While several focus group participants recognized the potential of technology to reduce isolation and create safe ways for people to access services remotely, they also reported that many residents don't have cell phone or computers at all. Those who have cell phones, often have insufficient minutes and/or broadband access to engage in telehealth visits or to access services remotely. They explained that the "unlimited" plans adequate for these purposes are too expensive for many residents. They also noted that some additional resources were made available related to broadband during the pandemic, but that those resources have been reduced now that schools are largely re-opened.

Focus Group Feedback - 9

"People were running out of minutes while on hold but they had no other way of accessing services because a lot of offices were closed during the pandemic. If they hung up, they would lose their place in line. So they had no choice but stay on hold until their minutes ran out."

"While families are in shelter, they get free access [to broadband], but once they move, they can't afford the service while in stabilization and the free services that are available out there are enough for kids in school or for parents to do research and fill out applications [for services and jobs]."

One service provider described how the growing "*digital divide*" would further disadvantage low-income communities and suggested that the hospital could play a significant role in addressing the issue.

Focus Group Feedback - 10

"Digital inequity worries me … It is the next frontier of discrimination. Everything is increasingly accessed online and their access will be impeded. This will only reinforce discrimination…There could be a real opportunity for the hospital here, to do a push and advocate for broadband expansion in Lynn, Salem, and Peabody by focusing [Federal] Recovery Act funds, but they [hospital leaders] need to be at the table."

Across all of the focus groups, participants agreed that broadband access and cell service are important issues for the communities they serve. And while most could name several organizations addressing various health concerns or social determinants of health, they could name only one, the Essex Community Foundation, that was looking at broadband equity on the North Shore.

Violence and Trauma

As shown in Table 8 below, the rate of violent crime in Lynn (at 492.3 per 100,000 population) in 2019 was higher than the violent crime rate in any other community in the hospital service areas and higher than the state rate. The next highest rate, 341.9 per 100,000 population, was in Nahant, which also exceeded the state's violent crime rate of 327.6 per 100,000.

Table 8 also shows property crimes in Massachusetts and the priority communities in 2019. Three communities, Danvers, Lynn, and Salem had property crime rates that exceeded the state rate of 1179.8 per 100,000 population. Lynn had the highest rate of all of the priority communities at 1426.2 per 100,000.

Table 8. Crime Rate per 100,000 Population by State, County, and City/Town, 2019

Geography	Violent Crime	Property Crime
Massachusetts	327.6	1179.8
Danvers	141.0	1290.5
Lynn	492.3	1426.2
Lynnfield	15.2	586.4
Marblehead	106.9	554.1
Nahant	341.8	341.8
Peabody	231.6	819.1
Salem	248.6	1673.5
Swampscott	52.3	738.8

DATA SOURCE: Federal Bureau of Investigation, Offenses Known to Law Enforcement, 2019
NOTE: violent crime includes murder and nonnegligent manslaughter, rape, robbery, and aggravated assault; property crime includes burglary, larceny-theft, and motor vehicle theft

While Lynn experienced the highest rates of violent crime and property crimes in 2019, the 2019 rates represent a decrease in both types of crime in Lynn when compared to the rates in 2016 (See Table 9). While 2019 rates of property crime were lower than 2016 rates in all of the priority communities, violent crime rates increased in Danvers and Nahant in the same time period and remained the same in Marblehead.

Table 9. Violent and Property Crimes per 100,000 Population, State and City/Town, 2016 & 2019

	Violent Crime		Property Crime	
	2016	2019	2016	2019
Massachusetts	377.0	327.6	1561.0	1179.8
Danvers	139.0	141.0	2172.0	1290.5
Lynn	772.0	492.3	2079.0	1426.2
Lynnfield	70.0	15.2	695.0	586.4
Marblehead	107.0	106.9	720.0	554.1
Nahant	115.0	341.8	718.0	341.8
Peabody	392.0	231.6	1305.0	819.1
Salem	305.0	248.6	2409.0	1673.5
Swampscott	69.0	52.3	1278.0	738.8

DATA SOURCE: PolicyMAP, FBI Uniform Crime Reports

Data on the number of reported rapes per 100,000 people for 2019 was available for the state, Essex County, and three of the priority communities (See Table 9). The rates of reported rape in Salem, Peabody, and Lynn were all higher than for Essex County and the state with the highest rate in Peabody at 39.5 per 100,000 people.

Table 10. Rates of reported rapes in 2019 for the state, county, and town/city per 100,000 people

Geography	2019
Massachusetts	32.1
Essex County	23.7
Danvers	N/A
Lynn	34.9
Lynnfield	N/A
Marblehead	N/A
Nahant	N/A
Peabody	39.5
Salem	32.2
Swampscott	N/A

DATA SOURCE: PolicyMap, 2021, N/A indicates insufficient data

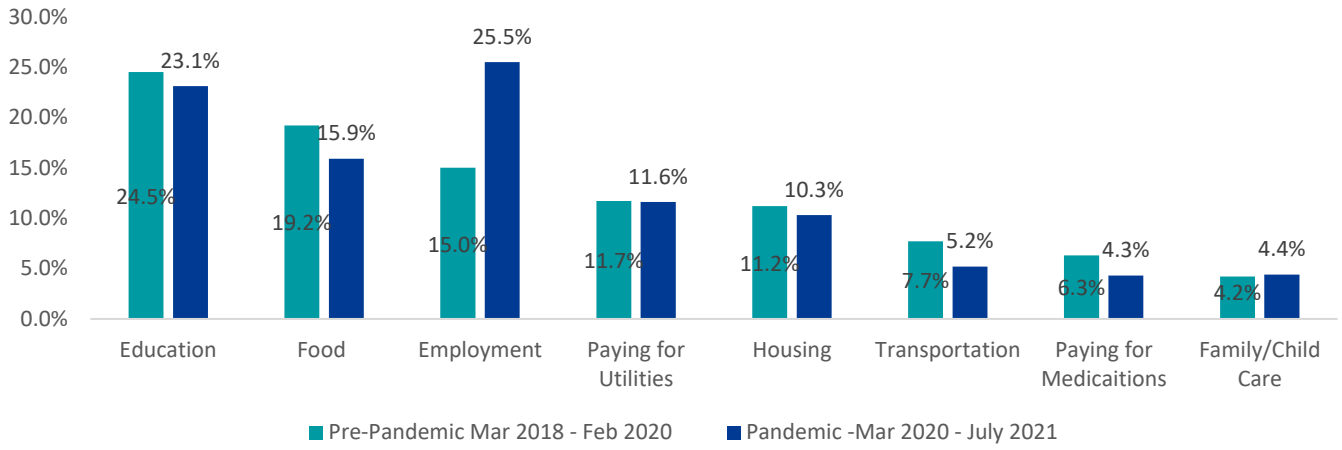
Social Determinants of Health (SDoH) Screening

All Mass General Brigham Primary Care Practices screen Medicaid ACO patients for a range of social determinants of health. When such an issue is identified, the patient is described as having screened positive for an issue(s) that are known to negatively impact health and wellness. As of July 2021, 84.3% of patients screened within the North Shore Physicians Group screened positive in one or more SDoH domains.

Figures 23 and 24 show the top domains identified through SDoH screening before the pandemic (March 2018 – February 2020) and during the pandemic (March 2020 - July 2021). Prior to the pandemic, the top domains were education (24.5%),

food (19.2%), and employment (15%). However, there was a shift in during the pandemic, when 25.2% screened positive for employment as an issue. While education was still a top concern, the positive screening rate fell slightly to 23.1%. Food also remained as a top issue, but the positive screening rate fell to 15.9%.

Figure 23. Percent of NSPG Medicaid ACO Patients Screening Positive for SDoH, by Domain - Pre-pandemic vs During Pandemic



DATA SOURCE: MGB Internal Enterprise Data Warehouse Data

Community Health Issues

This section focuses on health issues and concerns that were identified through the review of secondary data and/or in the focus groups. The findings below involve health outcomes as well as lifestyle behaviors (e.g., physical activity, nutrition, alcohol, and other substance use) that promote or hinder health. Whenever appropriate and available, town/city level data were provided and compared to county and/or state-level data and trends over time are offered.

Mortality

Figure 24 shows the leading causes of death for the Salem Hospital priority communities for 2014, the most recent data available. The top two leading causes of death for the Salem Hospital priority communities were the same as those for Massachusetts, although in Peabody and Swampscott, the rank of #1 and #2 were reversed.

The third leading cause of death for Massachusetts was Injuries and Poisoning, which includes drug overdoses. This was also the third leading cause of death for Lynn, Salem and Swampscott.

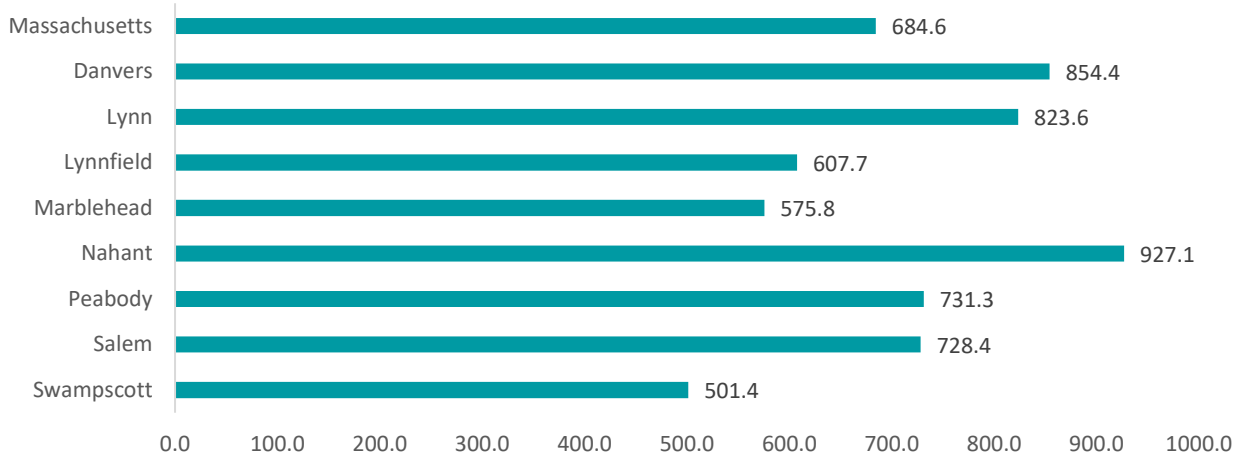
Figure 24: Leading Cause of Death, by State and City/Town, 2014

Rank	Massachusetts	Danvers	Lynn	Lynnfield	Marblehead	Nahant	Peabody	Salem	Swampscott
1	All-Site Cancer	All-Site Cancer	All-Site Cancer	All-Site Cancer	All-Site Cancer	All-Site Cancer	Heart Disease	All-Site Cancer	Heart Disease
2	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease	All-Site Cancer	Heart Disease	All-Site Cancer
3	Injuries and Poisoning	Cerebro-vascular Disease	Injuries and Poisoning	Cerebro-vascular Disease	Alzheimer's Disease	Cerebro-vascular Disease	Cerebro-vascular Disease	Injuries and Poisoning	Injuries and Poisoning

DATA SOURCE: Massachusetts Department of Public Health, Data Request, 2018

As shown in Figure 25, in 2015, the age-adjusted mortality rate per 100,000 people was higher in five of the Salem Hospital priority communities (Danvers, Lynn, Nahant, Peabody, and Salem) than in Massachusetts overall. Nahant had the highest age-adjusted mortality rate at 927.1 per 100,000 whereas Swampscott had the lowest at 501.4 per 100,000.

Figure 25. Age-Adjusted Mortality Rate per 100,000 Population by State and City/Town, 2015



DATA SOURCE: Massachusetts PHIT, 2021

As reported in Table 11 below, Essex County had higher death rates than Massachusetts overall related to infant deaths in 2017 (4.16 vs. 3.66 deaths per 1,000 live births, respectively); adult deaths from coronary heart disease in 2018 (170.1 vs. 157.4 per 100,000 people, respectively); and in deaths due to opioid overdose in 2019 (34.5 vs. 28.4 per 100,000, respectively). Death rates in Essex County were lower than the state in 2018 related to cancer (316.3 vs. 325.9 per 100,000, respectively) and stroke (44.6 vs. 45.2 per 100,000, respectively).

Table 11. Death rates in Essex County and Massachusetts

Cause of Death	Essex	MA
Rate of adult deaths from coronary heart disease per 100,000 people in 2018.	170.1	157.4
Rate of adult deaths from cancer per 100,000 people in 2018.	316.3	325.9
Rate of adult deaths from stroke per 100,000 people in 2018.	44.6	45.2
Rate of infant deaths per 1,000 live births in 2017.	4.16	3.66
Rate of deaths from all opioid overdoses per 100,000 people in 2019.	34.5	28.4

DATA SOURCE: Massachusetts PHIT, 2021

Chronic Disease Risk Factors

This section offers findings related to risk factors for chronic disease including physical activity, healthy eating and food security, and overweight or obesity. Focus group participants explained that high rates of chronic disease in the community are linked to poverty and, in particular, unstable housing and food insecurity.

Focus group participants emphasized that, although health behaviors affect whether patients experience uncontrolled blood pressure and blood sugars, there are many factors that affect health behaviors including the ability to access, store, and prepare nutritious foods; the ability to get medical appointments and medications; oral health and the ability to consume healthy foods; safe spaces to exercise; and health literacy and the ability to understand and navigate the health system.

> *"Often these issues [blood pressure, blood sugars] aren't top priority for resident because they are more concerned about bigger issues like where they will live or how they will pay their bills."*

Physical Activity

In 2018, the proportion of the population in Essex County over age 20 that reported no leisure time physical activity was 22.8%, the same as the statewide rate (See Table 12).

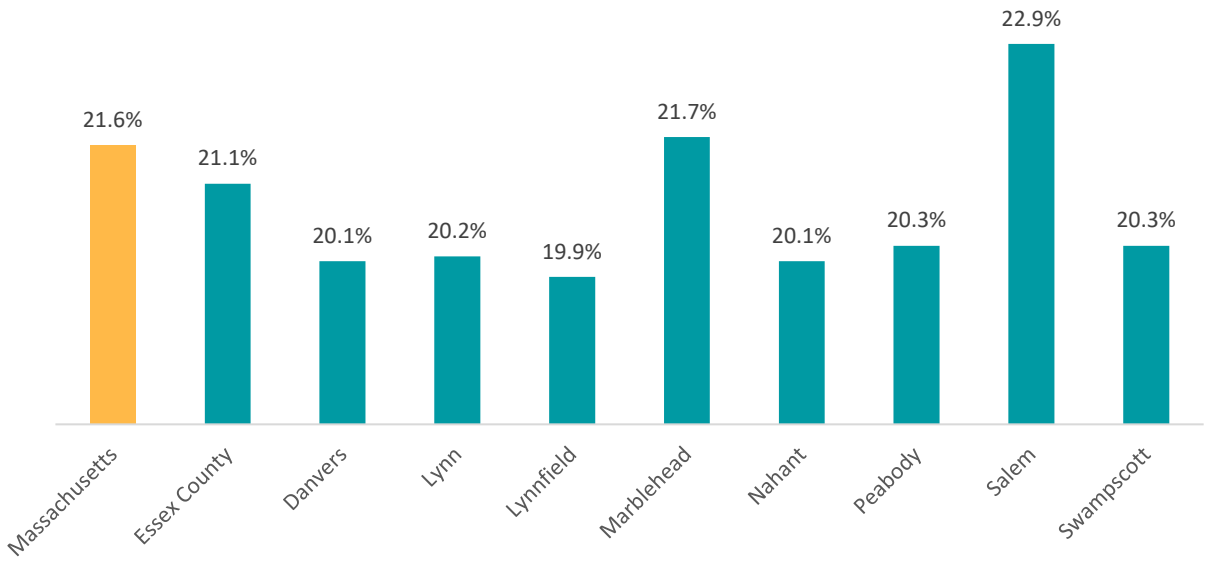
Table 12. Percent of Adult Population over 20 Years Reported No Leisure Time Physical Activity, Crude Prevalence, by State and County, 2018

Geography	2018
Massachusetts	22.8%
Essex County	22.8%

DATA SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, as reported by National Diabetes Surveillance System, as cited by County Health Rankings, 2010 and 2014

In 2017, the proportion of the population within each of the communities within the hospital's service area that reportedly met the physical activity recommendations within the past 30 days was lower than those of the state and county with the exception of two communities (See Figure 26); Marblehead and Salem had the largest proportions of individuals who met the recommendations, at 21.7% and 22.9%, respectively.

Figure 26. Percent of Adult Population Reported To Meet Physical Activity Recommendations in Past 30 Days, 2017



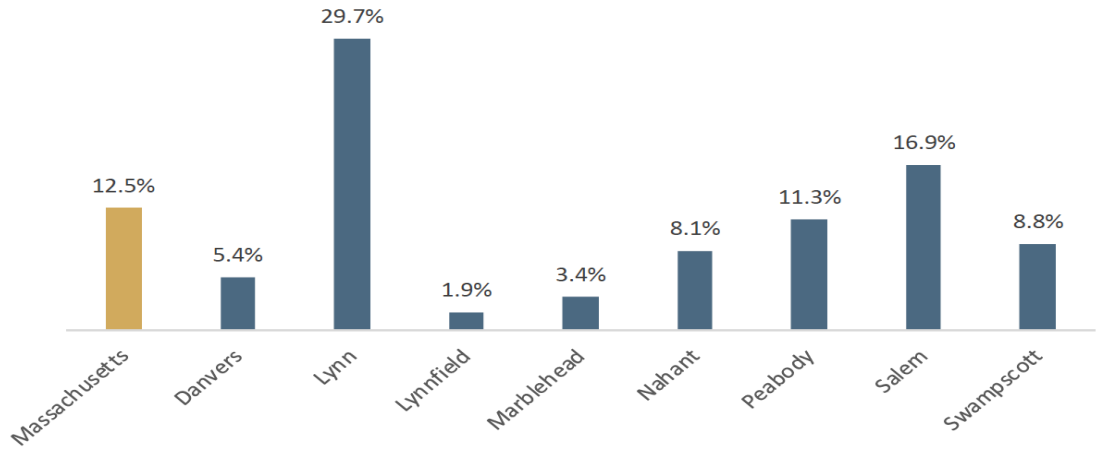
DATA SOURCE: PolicyMap, 2021

While physical activity was not a major topic of conversation within the focus groups, a few participants explained that there are too few safe places within the community to exercise, especially in the winter months, and that the pandemic and the need to socially distance had further reduced those options.

Healthy Eating and Food Security

As shown in Figure 27, the proportion of households in Lynn receiving SNAP benefits between 2012 and 2015 was substantially higher in Lynn (29.7%) than in any other community within the Salem Hospital service area and higher than the statewide rate of 12.5%. The next highest was in Salem, where 16.9% of residents were SNAP beneficiaries.

Figure 27: Percent of Households Receiving Food Stamps (SNAP Benefits), by State and Select Cities/Town, 2012-2015



DATA SOURCE: U.S. Census Bureau, American Community Survey, 5-Year Estimates, 2012-2016

Focus group participants explained that SNAP benefits, while not generally sufficient to feed a family, are an important resource for food insecure families.

> *"Food assistance programs can't meet everyone's needs. Food stamps help people buy specific things to meet the needs they have."*

For some, however, accessing SNAP benefits has been challenging. One focus group discussed that people in shelter settings have increasingly been denied SNAP benefits.

While the percentage of the population in Massachusetts that did not have access to a reliable source of food during the past year decreased from 2017 to 2019, the rate for Essex County increased slightly from 7.2% to 7.6%. However, among residents under the age of 18, the rate of those without a reliable source of food decreased in the county and state overall (See Table 13).

Table 13. Percent Population that Did Not Have Access to a Reliable Source of Food During Past Year by State and County, 2017 and 2019

	Percent of *Total Population*		**Percent of Population** *Under 18 Years*	
	2017	**2019**	**2017**	**2019**
Massachusetts	9.0%	8.2%	11.7%	8.9%
Essex County	7.2%	7.6%	11.3%	8.4%

DATA SOURCE: Feeding America, Map the Meal Gap, 2017 and 2019

Focus group participants talked at length about the problems that community residents face in trying to access nutritious and affordable food. They offered a distinction between food insecurity and nutrition insecurity, noting that simply having enough food is not the only problem. They explained that it is the ability to access, store, prepare, and consume enough *nutritious* foods that affects one's health.

At the root of the problem, most acknowledged, is poverty. Low wages and unemployment, which increased dramatically during the pandemic, make it very difficult to afford enough food, let alone healthy foods to feed a family. Participants acknowledged the tremendous work of community agencies, particularly during the pandemic, to provide food to those who need it. But, like supermarkets, it is difficult to access food programs without transportation. While getting to a supermarket or food program can be difficult for those without a car, getting home again with groceries is even more challenging, especially for those with small children in tow. And unlike supermarkets, most food programs have limited hours, which poses another barrier to access. For those facing housing instability and homelessness, the ability to store and prepare foods was described as a significant challenge.

Focus Group Feedback - 12

"One suite of food doesn't work for everyone. Some have dorm fridges or freezers. They can't store a week's worth of food. They need single serving options. We are getting a better understanding what people need and how to adjust."

Participants also indicated that there are reasons some community members may choose not to use the available food programs, including stigma and embarrassment. Food assistance programs aren't always able to offer the range of culturally-relevant foods that would be meaningful to community members.

Participants explained that many of the foods that are easy to prepare and eat are not always the healthiest options. Such foods tend to be starchy and low in nutrients (e.g., pasta, bread, rice); these foods also tend to be lower in cost and easier to store than healthier produce, dairy, and protein options. Some residents face physical limitations such as poor oral health or arthritis that make it difficult to prepare and chew healthy foods such as fruits and vegetables.

Focus Group Feedback - 13

"Dental issues are a huge reason why people can't eat healthy foods. Something like 42% of adults have dental pain or missing teeth. We've done a terrible job caring for adult dental health. One program participant admitted being happy about wearing a mask during the pandemic because it hid their teeth. It's a huge problem with so many implications."

For some, lack of understanding about nutrition and/or how to prepare healthy foods contributes to poor diet. Focus group participants acknowledged that consumption of some culturally-relevant foods (e.g., that are high in fat and/or starch) may contribute to poor nutrition. While some may prefer such foods, they may not be aware of healthier ingredients and ways of preparing such foods.

When asked about high rates of uncontrolled blood sugar and blood pressure in the community, some focus group participants explained that the issues that cause nutrition insecurity are largely responsible for these conditions. They argued that, if community members had access to affordable and nutritious foods and the means and knowledge to prepare healthy and appealing meals, it would go a long way in reducing health problems such as unmanaged hypertension and HbA1c levels.

> *"Rice, potatoes…these are all starch so they are problems if you have diabetes. People need the ability to tailor their meals."*

Among the focus group participants, there were several who talked about the need for "movements" related to food insecurity. Some described the need for a "prescription for health" and the need to reframe food insecurity as an issue of health. They want to engage health care providers in the effort and have them educate patients about the importance of nutrition to health, "prescribe" healthy foods, and recommend local food assistance programs. They explained that such an effort would address the lack of knowledge that prevents some from accessing and eating healthy foods and, for others, may help to address the stigma that prevents them from using community food assistance programs. At the same time, it would help to address the concerns providers have for their patients who have uncontrolled hypertension and HbA1c.

Focus Group Feedback - 14

"We need leadership and a bold communications strategy to move away from food insecurity and to nutrition insecurity and increase public awareness. We should seize the moment. There is such great collaboration. The hospital should work with us to push a 'prescription for health."

Others talked about the need to mobilize various sectors within the community to address all of the factors that cause and perpetuate food insecurity.

Focus Group Feedback - 15

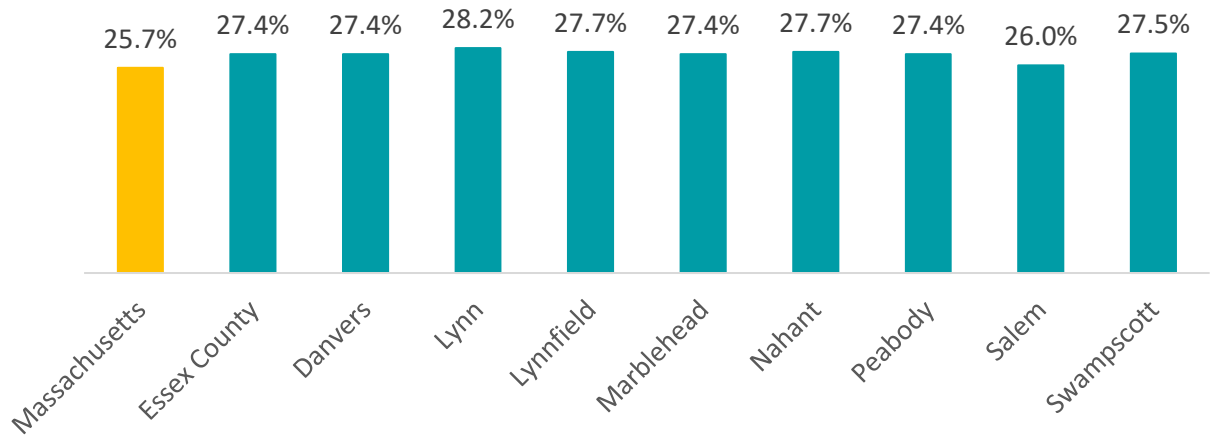
"We need to think about what it takes to transform a food system, including how food and farm workers are paid and how we can build a system rather than just addressing the problem at one point."

"We are so close to getting rid of food insecurity on the North Shore. We really need a 10 to 15 year plan and to bring all the partners together. We are so close."

Overweight and Obesity

As shown below in Figure 28, in Massachusetts, 25.7% of adults were obese in 2018. The rates of obesity exceeded the state rate in all of the priority communities and the highest rate was in Lynn, where 28.2% of residents were obese.

Figure 28. Percent of Adult that are Obese by State, County, and City/Town, 2018



DATA SOURCE: PolicyMap, 2021

Chronic Diseases

Asthma

In 2015, the rate of emergency department visits per 100,000 residents for asthma was higher in Lynn and Salem than in the other priority communities and the state overall (see Figure 29). The rate in Lynn was 1,003 per 100,000, roughly 33% higher than statewide. In Salem, the rate was 788 per 100,000.

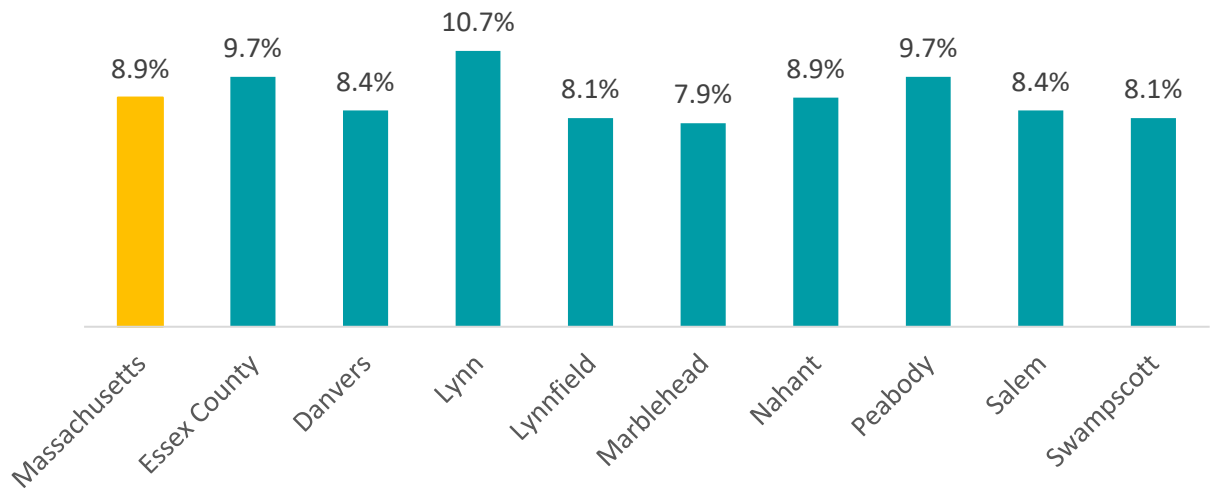
Figure 29. Asthma ED Visit Age-Adjusted Rates per 100,000 Population, by State and City/Town, 2015

DATA SOURCE: MA PHIT, 2021

Cardiometabolic Disease

In 2018, the percentage of adults age 18 and older diagnosed with diabetes was higher in Lynn (10.7%) than in all other communities in the hospital service area and higher than the rate for Massachusetts and Essex County (See Figure 30). The next highest rate was in Peabody, where at 9.7%, the rate was the same as for the county but higher than the state rate of 8.9%.

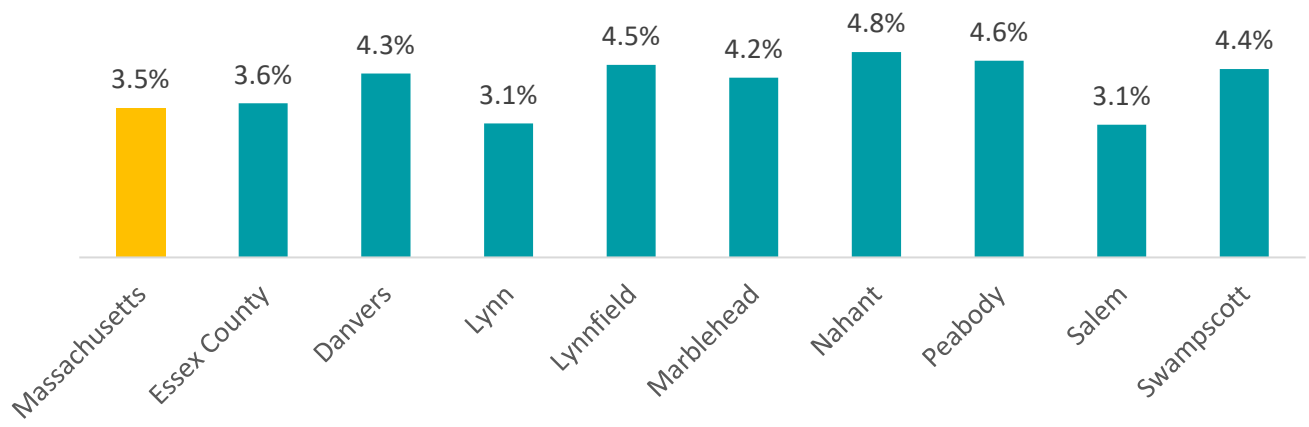
Figure 30. Percent of Adults Aged 18+ Years with Diagnosed Diabetes by State, County, and City/Town, 2018



DATA SOURCE: PLACES: Local Data for Better Health, Place Data 2020 release

Figure 31 below shows that, in 2018, the percentage of adults in six of the eight priority communities who had ever been diagnosed heart disease exceeded the rates for Massachusetts and Essex County. The highest rates of diagnosed heart disease were in Nahant (4.8%), Peabody (4.6%), and Lynnfield (4.5%). The lowest rates were in Lynn and Salem, where 3.1% of residents had ever been diagnosed with heart disease.

Figure 31. Percent of Adults Ever Diagnosed with Heart Disease by State, County, and City/Town, 2018



DATA SOURCE: PolicyMap, 2021

In 2017, the proportion of adults who ever reported high blood pressure was slightly higher in Essex County than statewide (29.6% vs. 28.6%).

Table 14. Percent of Adults Ever Reporting High Blood Pressure, by State and County, 2017

Geography	2017
Massachusetts	28.6%
Essex County	29.6%

DATA SOURCE: PolicyMap, 2021

While one-third of Massachusetts adults had high cholesterol in 2018, the rates were higher in all of the priority communities except Salem, where it was 32.5% (See Table 15). The highest percentages of those with high cholesterol were in Nahant (37.6%) and Peabody (36.9%).

Table 15. Percent of Adults with Reported High Cholesterol by State, County, and Town, 2018

Geography	Percent
Massachusetts	33.4%
Essex County	35.4%
Danvers	35.5%
Lynn	33.5%
Lynnfield	35.9%
Marblehead	36.2%
Nahant	37.6%
Peabody	36.9%
Salem	32.5%
Swampscott	36.6%

DATA SOURCE: PLACES: Local Data for Better Health, Place Data 2020 release

Cancer

Table 16 shows that the cancer incidence per 100,000 people was higher in Essex County than the state for all ages, including those younger than 65 and age 65 and older.

Table 16. Annual Cancer Incidence per 100,000 Persons by Age by State and County, 2011-2015

Geography	All Ages	Younger than 65	65 and Older
Massachusetts	459.1	233.5	2,018.40
Essex County	472.8	240.8	2076.7

DATA SOURCE: PolicyMap, 2021

Table 17 shows that between 2011 and 2015, the annual incidence per 100,000 for all-site cancers, lung/bronchus and prostate cancers, and melanoma were higher in Essex County than in Massachusetts. However, rates of breast, cervical and colorectal cancer were slightly lower in Essex County than for the state overall.

Table 17. Annual Cancer Incidence per 100,000 Persons by Type by State and County, 2011-2015

Geography	All-Site	Breast*	Cervical*	Colorectal	Lung/ Bronchus	Prostrate**	Melanoma
Massachusetts	459.1	137.6	5.1	37.0	63.8	106.4	20.0
Essex County	472.8	136.5	5.0	35.8	65.5	113.4	21.9

DATA SOURCE: PolicyMap, 2021; *Per 100,000 females, **Per 100,000 males

As shown in Table 18 below, the age-adjusted mortality due to cancer per 100,000 was lower in Essex County than in statewide.

Table 18. Age-Adjusted Mortality due to Cancer per 100,000 Population by State and County, 2018

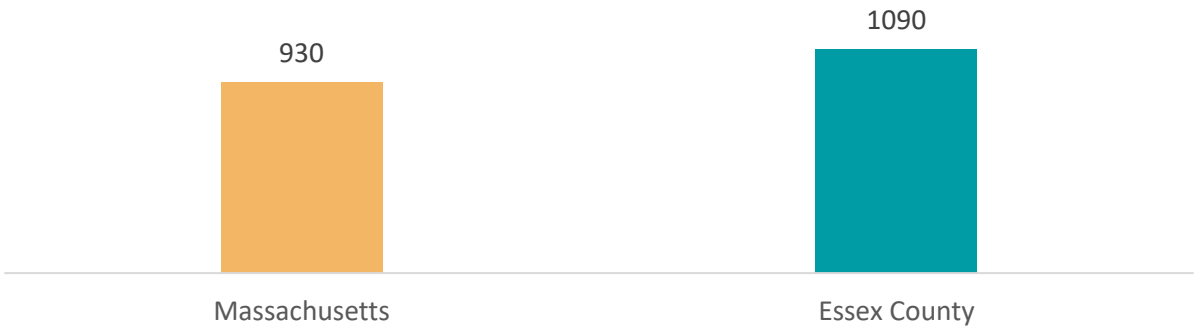
Geography	2018
Massachusetts	325.9
Essex County	316.3

DATA SOURCE: PolicyMap, 2021

Oral Health

Figure 32 shows that, in 2019, for every single dentist in Massachusetts there were 930 patients, a 1:930 ratio. The ratio for Essex County was higher (1:1090) which indicates that there were fewer dentists relative to the population size of Essex County than statewide.

Figure 32. Ratio of Population per One Dentist by State and County, 2019



DATA SOURCE: County Health Rankings & Roadmaps, Area Health Resource File/American Medical Association, 2021 (uses data from 2019)

Several focus group participants talked about the impact of oral health on the overall health of the community members, particularly their ability to consume healthy foods that support good health. They explained that there are too few dentists on the North Shore and fewer still who accept Medicaid. For many, oral health services are too expensive, particularly for restorative care. One participant had this to say.

Focus Group Feedback - 16

"Dental care is a huge issue and it is even bigger for advanced care. It's too expensive so people are getting their teeth pulled. We know that good dental health decreases risk for heart disease...There are good dental services available at the health center [North Shore Community Health Center], but they need to be expanded to meet the need."

Behavioral Health

Across all of the focus groups, behavioral health issues were described as a major problem affecting the target communities. While the pandemic increased stress for most residents in the priority communities, the economic hardship and social isolation related to the pandemic were particularly detrimental to those with existing behavioral health issues.

Focus Group Feedback - 17

"[There has been] a lot of relapse since COVID. Isolation is so detrimental to recovery, a real hindrance to recovery."

"Substance use disorders are worse than we have ever seen."

Systemic and interpersonal racism were described as having a major impact on the mental health and wellbeing of people of color.

> *"There's an exacerbation of lifetime trauma due to systemic racism. The more recent micro-aggressions and open season on people of color has led to mistrust, less engagement, and increased trauma."*

Although telehealth was described as useful for maintaining contact with patients and clients, the inability to connect in-person with clients for much of the pandemic made it difficult for some focus group participants to engage clients and patients in a way that would allow for identification of new or worsening behavioral health issues. They raised questions and concern about shifting trends in substance use that they felt unable to confirm (e.g., were communities of color increasingly affected by opioid use, was adolescent use of marijuana on the rise). Some have a "sense" that use of drugs and alcohol are on the rise.

> *"I can't say for sure, but my sense is that marijuana use is up since the pandemic, and that people are using it to self-medicate."*

Most of the discussion among focus group participants related to behavioral health focused on access to services, including those to address mental health concerns, substance use disorders (SUDs), and co-occurring SUDs and mental health diagnoses. Such services were described as *"in critically short supply."* They talked about long waiting lists for providers in general, but explained that finding providers who speak different languages, who accept Medicaid, and/or who can provide services to pediatric patients is extremely difficult. Patients, they reported, may go many months while waiting for an appointment.

Focus Group Feedback - 18

"There's just a lack of detox beds. When they [people dealing with SUDs] want help, there are no beds and no coverage...80 to 85% of those who need treatment are on MassHealth but most places won't take it."

"It's hard to break down barriers for people of color. Somewhere around 70% of those who are dealing with substance use disorders are people of color and yet only about 30% of those in treatment [for SUDs] are people of color."

"Mental health [services] for non-English speaking people is a perpetual problem. Turnover is so great among bilingual therapists. Kids constantly lose their treatment providers. There is just this small cadre of bilingual therapists in the community that take in kids."

While there are too few detox beds available statewide, the problems is, they said, much worse on the North Shore. They added that there are fewer SUDs treatment options for the uninsured and those with MassHealth. When such services are available outside of the immediate geographic area, transportation can become a barrier to access. They also indicated that there are too few post-detox services available on the North Shore to support people in maintaining sobriety.

Focus group participants also described health systems issues that complicate access to and care of patients with behavioral health issues. They reported that patients are sometimes discharged from hospitals without medications for the mental health or SUDs issues in-hand, which, they explained, increases the likelihood that the patients will go without medications and their conditions will worsen. They described long waits at emergency rooms, providers who are reluctant to address mental health and SUDs and to manage medically assisted treatment for SUDs (MAT) in their practice, and the difficulty hospital providers face in trying to communicate with primary care providers, to ensure patients who receive MAT in the hospital will be able to continue their treatment.

Focus Group Feedback - 19

"A patient may be in the hospital and we could get suboxone going. There's a small window of opportunity and when systems don't keep their promises…We can get them started but we need follow up care to keep them on MAT."

"They are ready for detox and they go to the hospital and there are long ED waits and they give up. Then, they are back out on the street and they overdose."

"Some providers are reluctant about embracing SUDs treatment. Their patients may have serious alcohol problems but PCPs don't tend to approach medication as an option. If you want vivitrol, they send you to see a specialist, but you don't need a specialist to get MAT. It's stigmatizing and an extra step. SUDs should be treated like any other medical condition."

"For adults and especially the elderly, mental health is a big issue! We aren't doing enough to integrate it into primary care."

"I'd like to see a plan to start to embed substance use [assessment and treatment] in individual practices. In other places in the country, this is happening. It has not been embraced in our community so patients end up in the ED in crisis. People are losing their lives. This is very serious!"

Participants explained that when a person is willing to engage in treatment for a behavioral health issue, particularly a substance use disorder, the ability to access appropriate services in a timely way is critical.

Focus Group Feedback - 20

"The window of opportunity for getting people into detox, treatment, and on MAT is narrow and when we can't get them a bed or can't coordinate with a provider, we may miss that window."

"There's a lack of beds. When I'm looking for treatment, there is nothing available; no beds to be had. When people are motivated to change, you need to strike. And when we finally find something out of the area, transportation becomes the issue."

Within the youth services arena, focus group participants described a desire for training to empower youth to deal with stress and mental health issues, and about how to talk with and identify mental health and SUDs issues among young people, to be able to distinguish between an emergency, and to understand how and where to refer to services. Several youth services providers described a desire to work more holistically and collaboratively to address behavioral health issues among those they serve and for an easier way of identifying appropriate services and making referrals when needed. Some also discussed the desire to expand their services so they can extend mental health services to young people and increase the number of children and youth engaged in care.

Focus Group Feedback - 21

"I'd love to get training around mental health. Our case managers could really use it to help youth advocate for themselves and express their feelings.

"We could use professional development for our frontline staff so they know when and how to refer [for a mental health issue]."

"I'd like to see us [service providers] take a more holistic approach on the North Shore. We could use a website or some place where all community resources could be and we should work to align services and have less duplication."

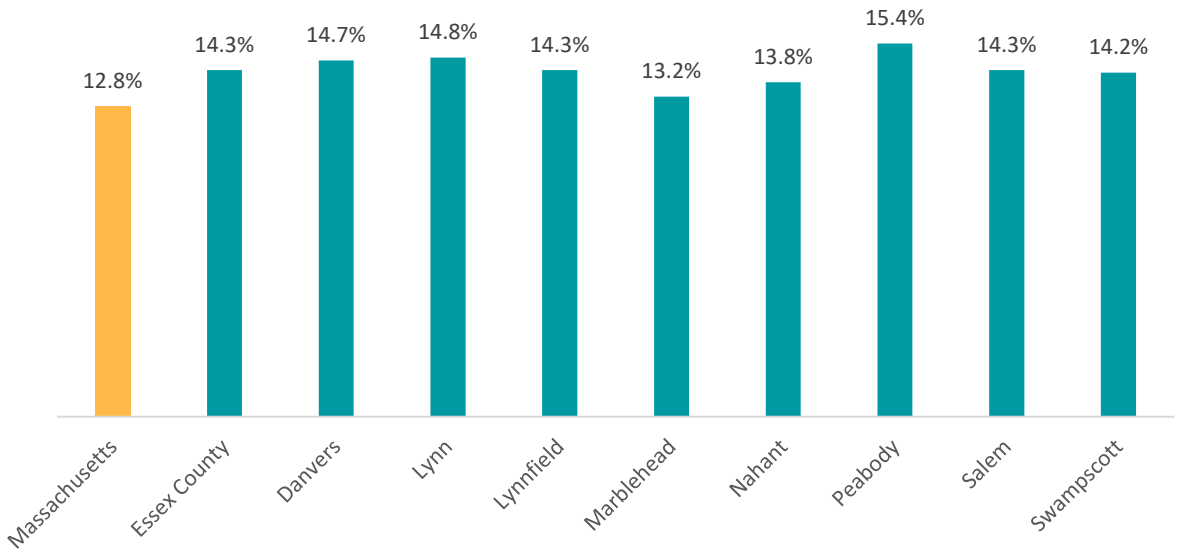
"I'd love to develop joint proposals [with the hospital] to add mental health services to the programming we already do with kids."

Below, data from secondary sources are provided to describe mental health and SUDs in the hospital's service area. For some issues (e.g., cocaine or marijuana use), no data are provided because recent and relevant (i.e., either city/town or county-level) data were not available.

Mental Health

Between 2014 and 2018, 12.8% of adults statewide reported 14 days of poor mental health per month. The rate of reported 14 days of poor mental health per month among adults in each of the hospital's priority communities was higher than the state (See Figure 33). The highest rates were in Peabody (15.4%), Lynn (14.8%), and Danvers (14.7%).

Figure 33. Percent of Adults Reporting 14 Days of Poor Mental Health Per Month by State, County, and City/Town, 2014-2018



DATA SOURCE: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, as cited by County Health Rankings, 2014 and 2016, DATA SOURCE: PolicyMap, 2021

Deaths due to suicide per 100,000 people were lower in Essex County than statewide in 2018 (see Table 19).

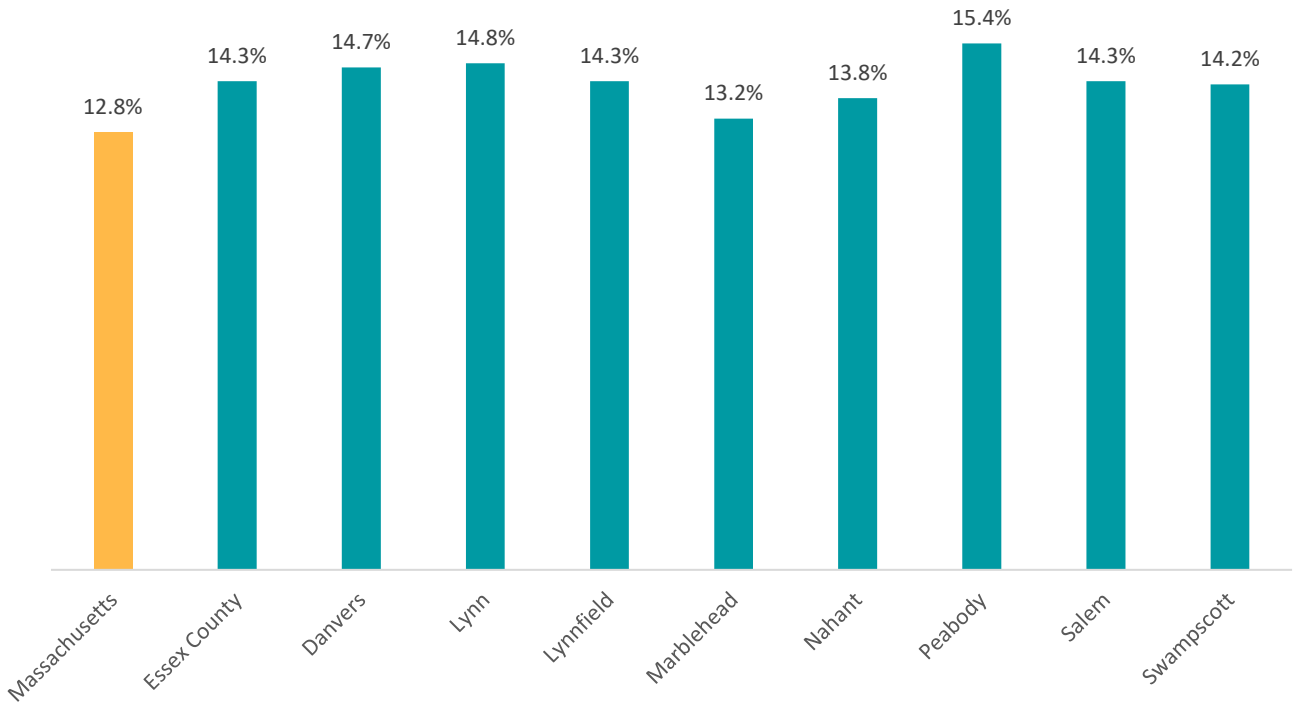
Table 19. Rate of Deaths from Suicide per 100,000 People by State and County, 2018

Geography	2018
Massachusetts	10.7
Essex County	9.4

DATA SOURCE: PolicyMap 2021

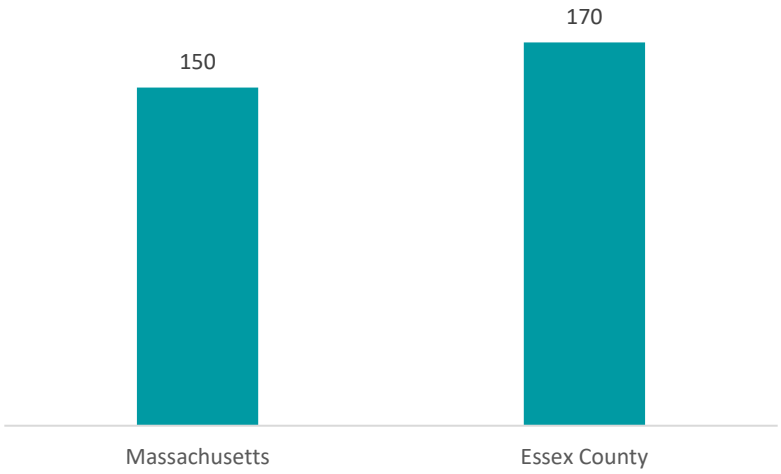
While Figure 34 suggests that a greater proportion of residents in the target communities suffer with poor mental health 14 days or more in a month than statewide, the availability of mental health providers in Essex County is lower relative to the population than statewide. As Figure 35 shows, the ratio of mental health providers to the population is 1:150 for the state and 1:170 in Essex County.

Figure 34. Percent of Adults Reporting 14 Days of Poor Mental Health Per Month by State, County, and City/Town, 2014-2018



DATA SOURCE: PolicyMap, 2021

Figure 35. Ratio of Population per One Mental Health Provider by State and County, 2020



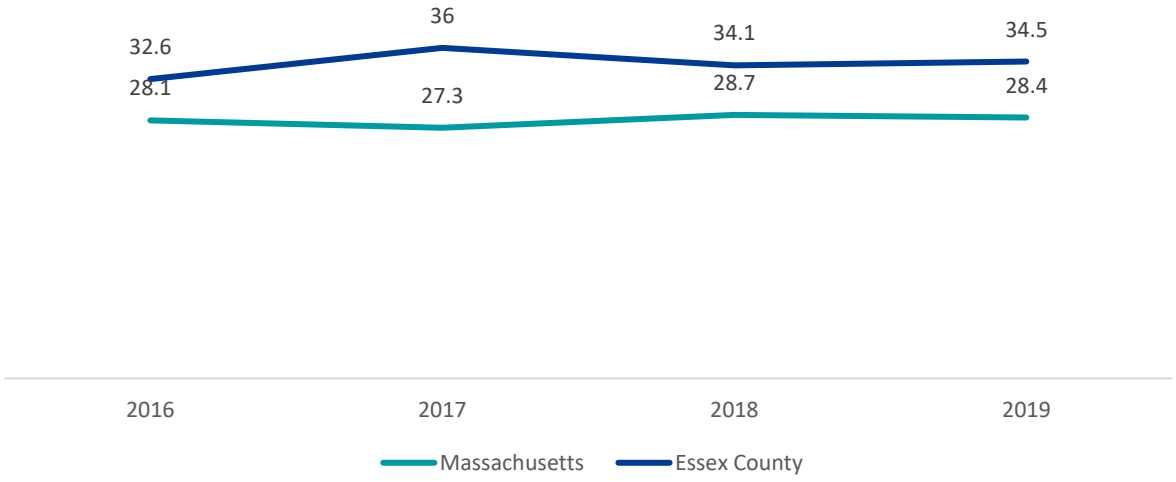
DATA SOURCE: County Health Rankings & Roadmaps, CMS, National Provider Identification, 2021 (uses data from 2020)

Substance Use Disorders

Opioid Use

Figure 36 shows that, between 2016 and 2019, deaths due to opioid overdose per 100,000 people were higher in Essex County than statewide. During that time period, the highest rate of deaths due to opioid overdose in Essex County was in 2017 at 36 per 100,000 people. The Essex County rate was only slightly lower in 2019 at 34.5 per 100,000.

Figure 36. Rate of Deaths from All Opioid Overdoses per 100,000 People By State and County, 2019

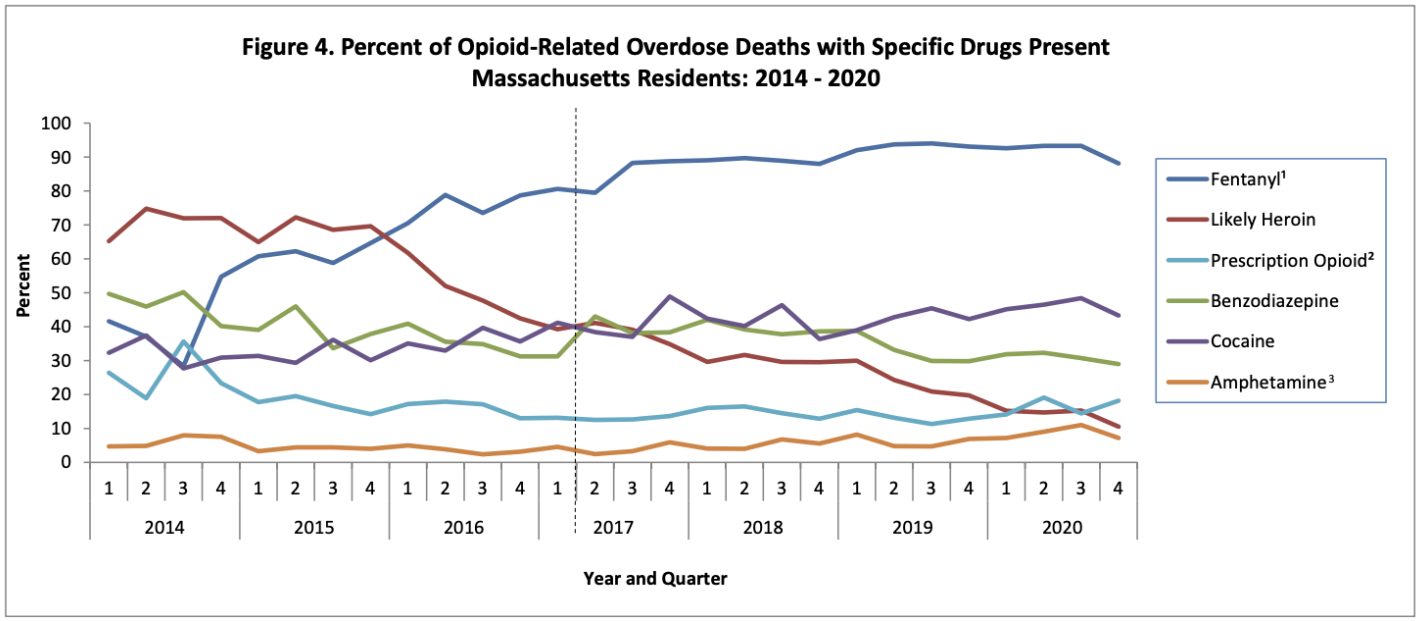


DATA SOURCE: PolicyMAP, 2021

Figure 37 shows that Fentanyl is present in the majority of opioid-related overdose deaths. Figure 38 shows the increase in deaths among Hispanic residents and the dramatic increase in deaths among Black non-Hispanic residents of

Massachusetts, especially among Males in each group. Deaths among White non-Hispanic individuals appear to be decreasing.

Figure 37: Figure 4 from MA DPH Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents, May 2021



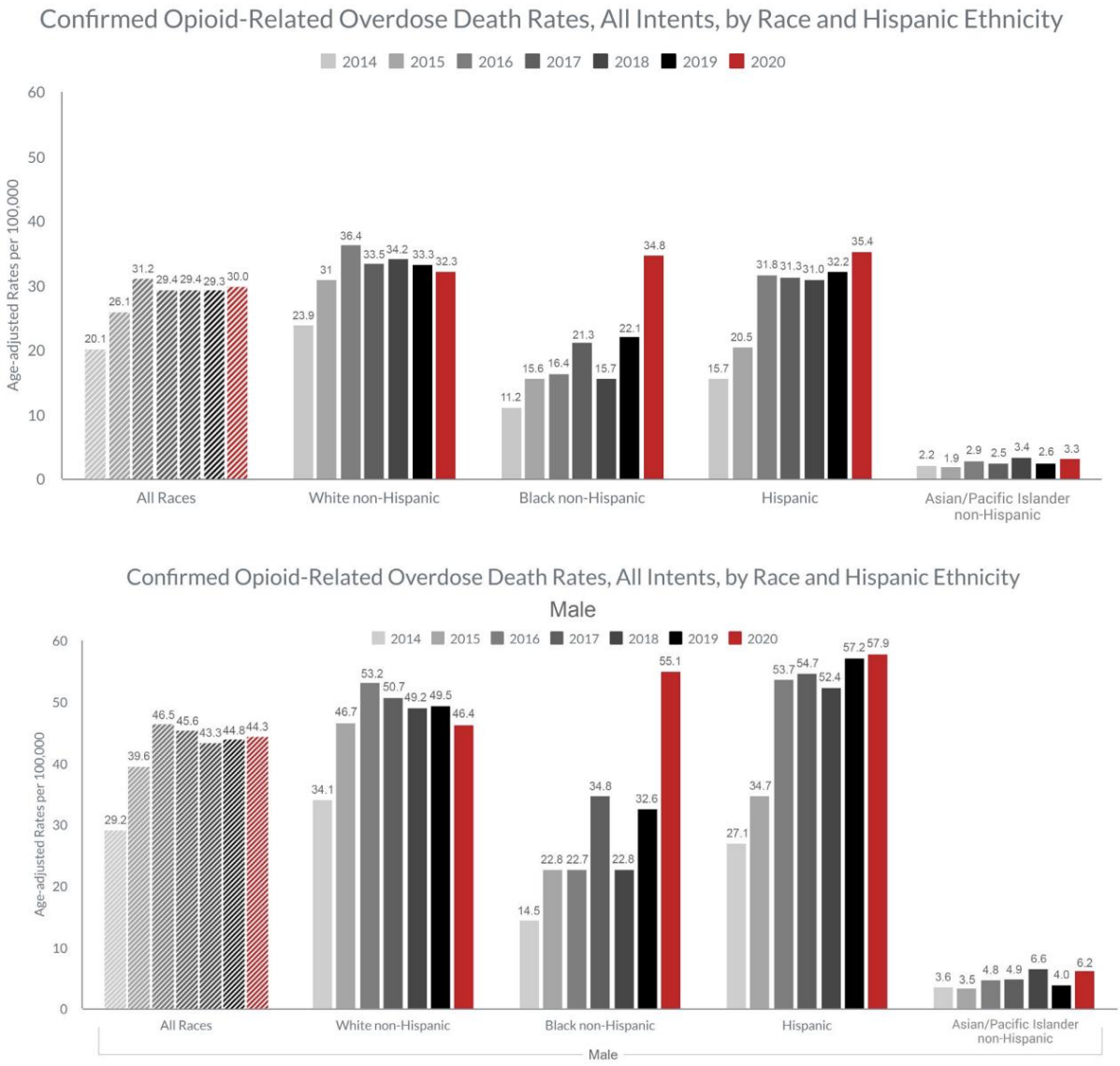
* Beginning with the November 2019 report, DPH began to use a new method to identify substances present in the toxicology data, which can only be applied from 2017 onward; this new method cannot be applied to the older data.

1. This is most likely illicitly produced and sold, **not** prescription fentanyl
2. Prescription opioids include: hydrocodone, hydromorphone, oxycodone, oxymorphone, and tramadol
3. Beginning with the February 2020 report, amphetamine includes both amphetamine and methamphetamine; methamphetamine was previously excluded

Please note that previous estimates may change slightly as DPH routinely receives updated toxicology data from the Office of the Chief Medical Examiner and the Massachusetts State Police.

DATA SOURCE: MA DPH Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents, May 2021

Figure 38: Charts from MA DPH Report on Opioid-Related Overdose Deaths, All Intents, MA Residents – Demographic Data Highlights



DATA SOURCE: MA DPH Report on Opioid-Related Overdose Deaths, All Intents, MA Residents – Demographic Data Highlights

Table 20 shows that while there is some variation year-to-year in the number of opioid-related deaths in the Salem Hospital priority communities, Lynn has the highest number of deaths by far and represents approximately 20% of the deaths in Essex County.

Table 20: Opioid-related Overdose Deaths by State, County and City/Town, 2015 - 2020

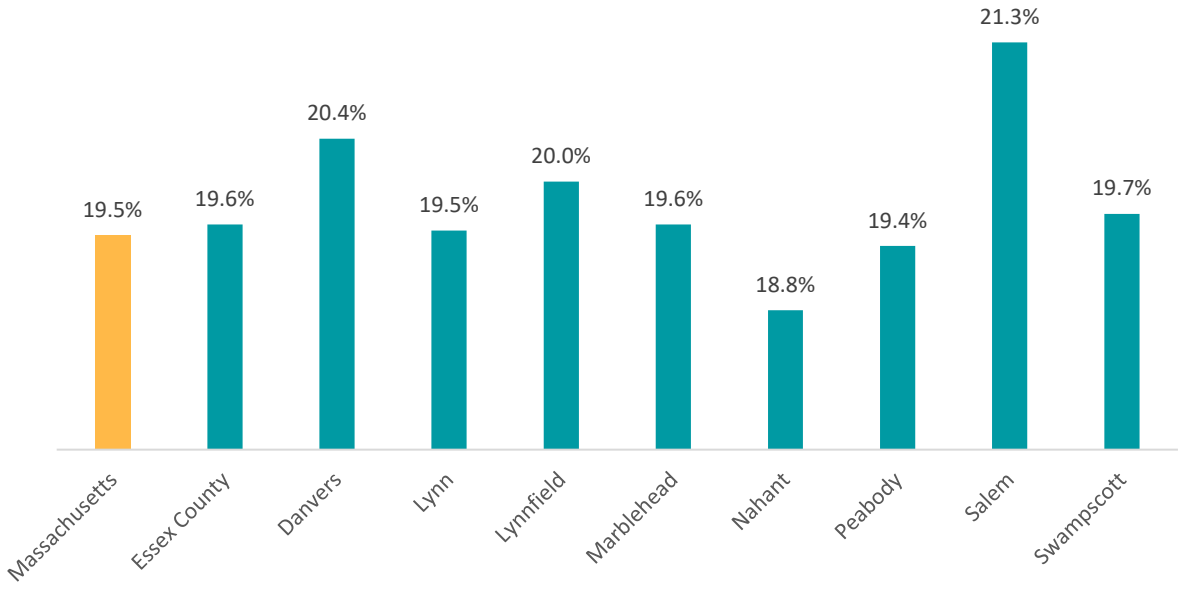
	2015	2016	2017	2018	2019	2020
Massachusetts	1,738	2,102	1,999	2,005	2,002	2104*
Essex County	234	274	299	272	277	249
Danvers	7	4	9	8	5	9
Lynn	48	46	63	51	56	47
Lynnfield	2	1	2	5	4	1
Marblehead	0	4	5	3	0	1
Nahant	1	2	0	0	2	-
Peabody	11	11	23	13	18	17
Salem	16	18	21	20	15	20
Swampscott	2	4	2	4	3	0

DATA SOURCE: MA DPH Current Opioid Statistics

Alcohol Use

In 2018, reported binge-drinking among adults statewide was 19.5% (See Figure 39). Rates of binge-drinking were higher in five of the eight priority communities than statewide with the highest rates of adult binge-drinking in Salem (21.3%) and Danvers (20.4%). The rate of adult binge drinking in Lynn (19.5%) was the same as the statewide rate and slightly lower than the rate for Essex County (19.6%).

Figure 39. Percent of Adults who Report Binge Drinking by State and County, City/Town, 2018

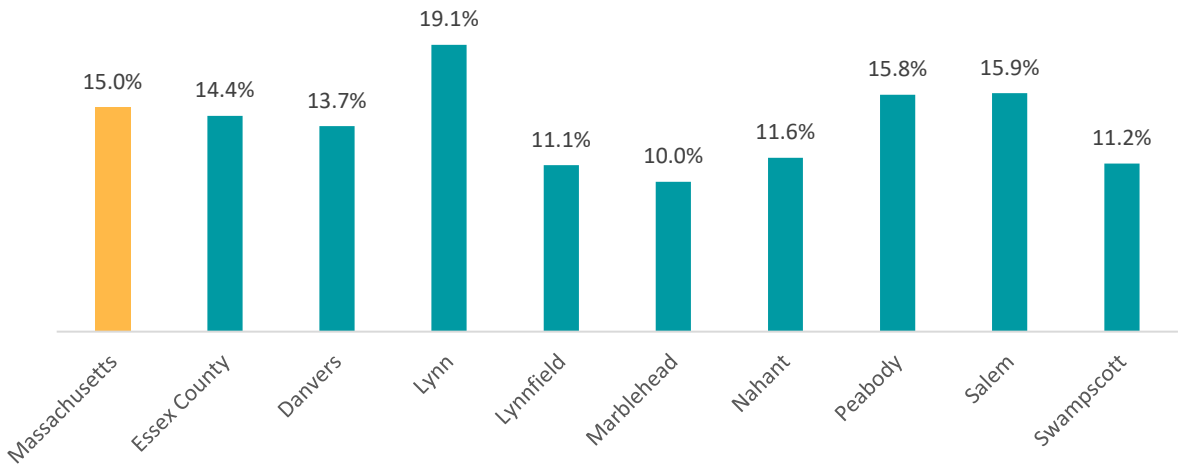


DATA SOURCE: PLACES: Local Data for Better Health, Place Data 2020 release

Tobacco

Statewide, in 2018, the rate of reported current smoking among adults was 15% (See Figure 41). Among the priority communities current smoking rates were higher than statewide in Lynn, Salem, and Peabody and highest in Lynn at 19.1%.

Figure 40. Percent of Adults who Reported Current Smoking by City/Town, 2018



DATA SOURCE: PLACES: Local Data for Better Health, Place Data 2020 release

Maternal and Child Health

As shown in Table 21, Essex County experiences poorer birth outcomes than the state overall. The rate of infant mortality per 1,000 live births was higher in Essex County in 2017 than in the state overall, 4.2 versus 3.7 per 1,000, and, in 2018, the percentage of low birthweight births was slightly higher in the county than statewide, 7.8% vs. 7.6%, respectively.

Table 21: Maternal and Child Outcomes 2017 and 2018

	Infant Mortality Rate per 1,000 Live Births – 2017	Percent of Low Birthweight Births – 2018	Percent of births where prenatal care was received in only the 3rd trimester – 2018
Massachusetts	3.7%	7.6%	4.6%
Essex County	4.2%	7.8%	3.9%

DATA SOURCE: Massachusetts Department of Public Health, Data Request, 2018 and PolicyMap 2021

While rates of low birthweight births and infant mortality were higher at the county versus state level, the percentage of pregnant women who received late (i.e., third trimester) or no prenatal care was greater for the state overall than in Essex County in 2018, 4.6% vs 3.9%, respectively.

There was some discussion within one focus group about the need for prenatal services at the North Shore Community Health Center. Such services were once offered at the health center but now patients are referred to the hospital for prenatal care. The focus group participants reported that patients often experience delays in their care while awaiting appointments and, because they are unfamiliar with the hospital, have difficulty navigating the system.

HIV and Sexually Transmitted Diseases

Table 22 below shows that rates of HIV and other sexually transmitted diseases per 100,000 people were lower than for the state overall in 2017, although rates of HIV were close to the statewide rate at 10.2 versus 10.3, respectively.

Table 22. Rates of HIV and Sexually Transmitted Diseases per 100,000 people, state and county, 2018

Geography	HIV	New primary and secondary Syphilis	New Gonorrhea	New Chlamydia
Massachusetts	10.3	7.8	112.8	427.3
Essex County	10.2	5.0	84.3	424.2

DATA SOURCE: PolicyMap, 2021

While statewide rates of sexually transmitted diseases are somewhat lower for the county versus the state, Table 23 below, shows that rates of Gonorrhea were higher in 2018 in Lynn than statewide and rates of Chlamydia were higher in Lynn, Salem, and Nahant than statewide.

Table 23. Gonorrhea Case and Chlamydia Rates per 100,000 Population, by State and City/Town, 2018

Geography	Gonorrhea	Chlamydia
Massachusetts	**110.3**	**438.0**
Danvers	35.3	194.0
Lynn	160.8	655.3
Lynnfield	68.6	214.2
Marblehead	NA	139.6
Nahant	NA	454.3
Peabody	56.1	260.5
Salem	78.4	517.7
Swampscott	NA	181.9

DATA SOURCE for 2018 data: MA PHIT, 2021
NA indicates that rates were not calculated due to small number of cases

Infectious Diseases

COVID-19

Table 24 shows that Lynn had the greatest number of confirmed cases of COVID-19 and the highest rate of infection among the priority communities. At a rate of 19,003.4 per 100,000, Lynn's COVID case rate was substantially higher than all of the other communities in the hospital service area from January 2, 2020 to October 16, 2021.

Table 24. Confirmed COVID-19 Cases and Case Rate Per 100,000 People by Town/City, January 1, 2020 – October 16. 2021

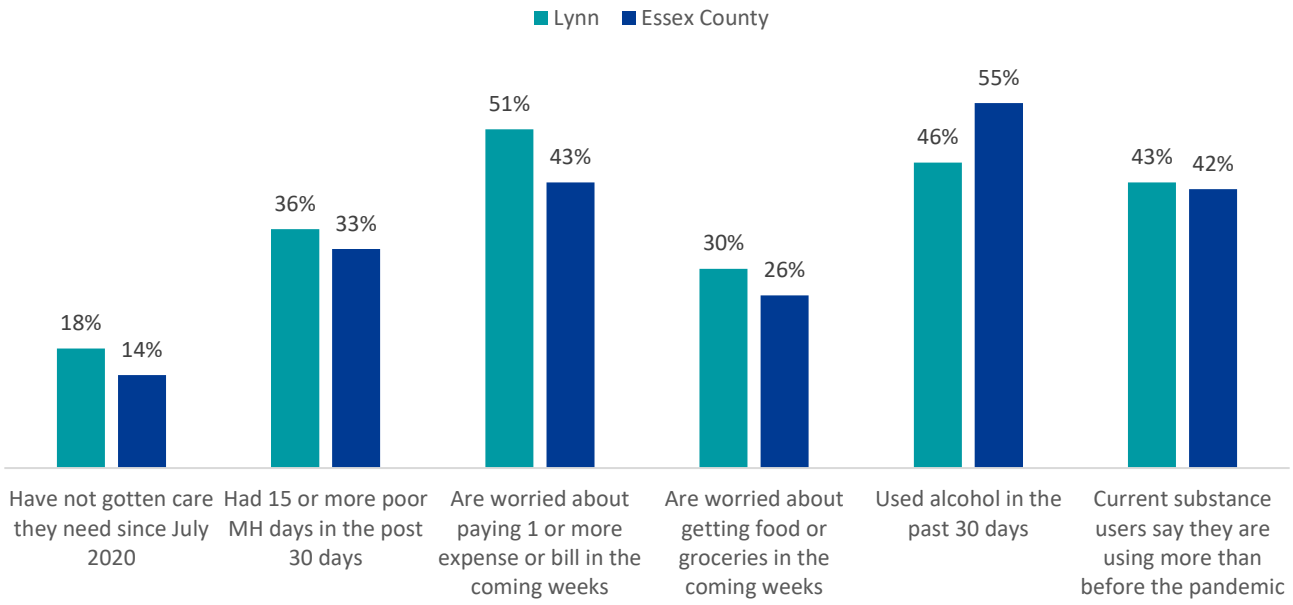
Priority Community	Total Case Counts	Rate per 100,000 people
Danvers	3,645	12,715.0
Lynn	19,160	19,003.4
Lynnfield	1,478	12,249.1
Marblehead	1,630	8,562.7
Nahant	306	9,462.0
Peabody	7,957	14,217.3
Salem	5,498	12,121.1
Swampscott	1,417	10,406.9

DATA SOURCE: https://www.bostonglobe.com/2020/03/10/nation/latest-coronavirus-numbers-massachusetts/?p1=Article_Utility

In the fall of 2020, the Massachusetts Department of Public Health (MA DPH) conducted an online COVID-19 Community Impact Survey (CCIS). Given the high rates of COVID-19, the city of Lynn was designated one of twenty priority communities by MA DPH.

Figure 41 shows that a greater percent of Lynn respondents had: foregone health care; had 15 or more poor days of mental health; were worried about paying bills and getting food or groceries than respondents for Essex county overall.

Figure 41: MA DPH COVID-19 Impact Survey Responses for Lynn and Essex County



DATA SOURCE: https://www.mass.gov/info-details/covid-19-community-impact-survey

Table 25 shows the vaccine rates as of October 14, 2021 among the Salem Hospital priority communities. It is important to note that, for some communities, accurate community-level data on the number of residents in various racial and ethnic groups were not available to calculate the percent of those groups that received vaccinations; such instances are indicated with "NA." Despite these limitations, the data show lower vaccine rates overall for Lynn and Salem than in the other communities, and rates among the Black, Hispanic, and Asian populations in Lynn and Salem were substantially lower than for Whites.

Table 25: COVID-19 Total Vaccination Rate and by Race/Ethnicity Group as of October 14, 2021

	Danvers	Lynn	Lynnfield	Marblehead	Nahant	Peabody	Salem	Swampscott
Total Vaccine Rate	75.6%	69.5%	86.9%	87.7%	87.1%	71.1%	69.1%	86.0%
White	70.1%	75.7%	78.1%	83.7%	76.3%	65.3%	73.6%	78.7%
Black	NA	51.0%	NA	70.2%	NA	72.7%	38.9%	NA
Hispanic	80.1%	48.9%	NA	87.7%	NA	56.6%	43.8%	NA
Asian	75.0%	63.8%	NA	NA	82.7%	63.5%	57.5%	73.5%

DATA SOURCE: https://www.bostonglobe.com/2021/01/29/metro/charts-how-many-vaccine-doses-has-massachusetts-received-who-has-been-vaccinated/?p1=Article_Utility

NA=Accurate community-level counts of residents from these racial and ethnic groups not available to calculate vaccination rates

Focus group participants explained that misinformation about vaccines, particularly in non-English speaking communities, and a lack of trust in government and the health system, housing issues (e.g., homelessness, frequent relocation, overcrowded conditions), and transportation issues were obstacles to testing and vaccinations and facilitators to spread of the virus. They also explained that "fall-out" from the pandemic, including increased unemployment and social distancing, exacerbated economic disparities, isolation, and behavioral health issues for many residents, especially immigrants, seniors, and those with existing behavioral health issues. Some participants also worry that the pandemic took attention and resources away from other health concerns that impact mortality and morbidity, including sexually transmitted disease and HIV.

As service providers and advocates, the focus group participants described how the pandemic affected their ability to serve the community. While telehealth was described as helpful for maintaining contact with clients, several talked about the digital divide and believed technology could not replace face-to-face interactions. They also noted the extra stress that health and social service providers experienced during the pandemic.

Focus Group Feedback - 22

"We've lost our ability to talk with kids and parents and to find out what's going on in their lives. We don't know what we don't know."

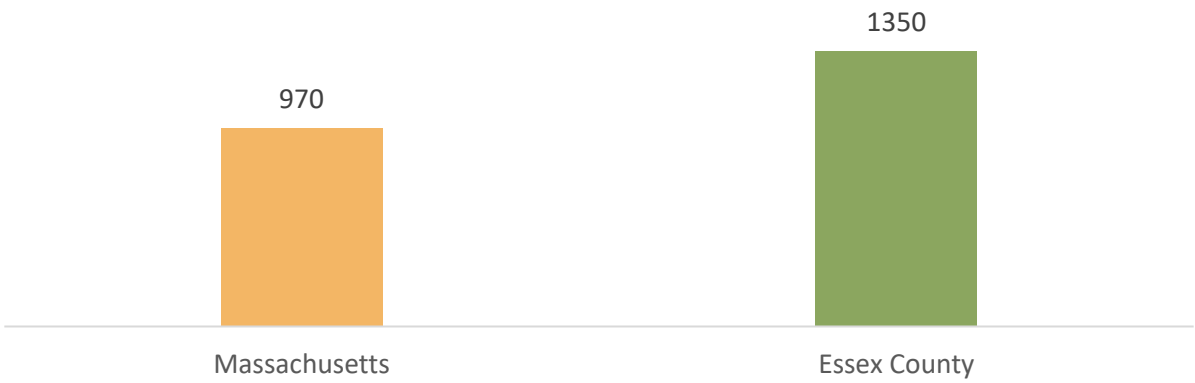
"We are struggling with tired staff. We are so stretched. Our workers are on the frontline and they picked up remote services, people are juggling multiple roles. Staff mental health is big. This is a different kind of tired."

"Everyone, all facets, are facing COVID fatigue and anxiety and depression. For staff and volunteers, the effects go way beyond the workplace."

Health Care Access and Utilization

In 2018, the ratio of primary care doctors to residents in Essex County was one for every 1350 residents, markedly higher than for the state overall where there were 970 people for every primary care physician (see Figure 42).

Figure 42. Ratio of Population per One Primary Care Physicians by State and County, 2018



DATA SOURCE: County Health Rankings & Roadmaps, Area Health Resource File/American Medical Association, 2021 (uses data from 2018)

While, in 2018, the proportions of children under age 19 without health insurance were the same for the state and Essex County and relatively small at 1% each (See Figure 42), the proportion of uninsured individuals under age 65 without health insurance was higher in Essex County than in the state overall in 2018 at 5% versus 4%, respectively (See Figure 43).

Focus group participants talked at length about the difficulty community members face in getting primary care appointments and explained that long wait times contribute to increased emergency room use. Increased emergency room use has led, they explained, to long wait times in the ER. They also reported that the closing of Union Hospital decreased access to care for patients in Lynn, which increased utilization of Salem Hospital and exacerbated wait times at the hospital.

Several participants described the challenges of communicating and coordinating care between the hospital and health centers. They explained that it can be difficult for providers to communicate and questioned why the hospital and health centers can't find a way to share patient information via EPIC, the electronic health record, as demonstrated in the following exchange.

Focus Group Feedback - 23

"People come to the ED because they can't get through to their primary care providers, but we can't reach them either. We need a more direct way to coordinate care."

"We need to prioritize. When we start talking about using navigators, it's because the system is broken. We need better ways of communicating with providers."

"We need to breakdown EPIC barriers across the hospital and health center. We need to be able to communicate and coordinate more easily with other EPIC providers."

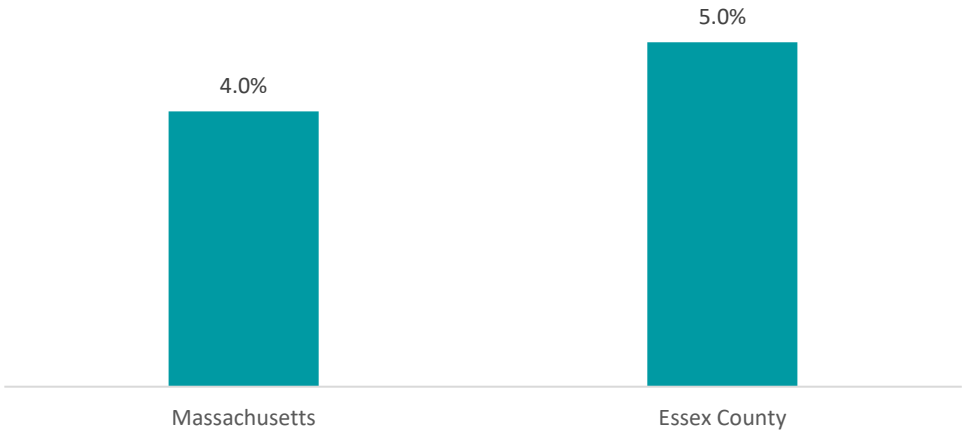
Several focus group participants described health care workforce shortages as a major impediment to meeting the community's need for health services.

Focus Group Feedback - 24

"Shortages in nursing and other staffing…there are so many open positions, and this really impacts our ability to provide care."

"We really need help with workforce shortages and investment in the pipeline…we need to go into the community and recruit culturally diverse workers into the workforce."

Figure 43. Percent of Adults under Age 65 without Insurance by State and County, 2018



DATA SOURCE: County Health Rankings & Roadmaps, Small Area Health Insurance Estimates, 2021 (uses data from 2018)

According to focus group participants, with the exception of those without legal residency status in the U.S., health insurance access was not described as a major problem for community residents. However, they did discuss the limitations Medicaid recipients experience when trying to find dentists or behavioral health services. They also noted that Medicare doesn't pay for many safety items that would allow seniors to remain in their homes and prevent accidents (e.g., grab bars, lift chairs).

Between 2015 and 2019, notable racial/ethnic disparities existed related to health insurance (Table 26). In Essex County, the highest rate of uninsured was among Hispanic/Latinos (6.1%) and Blacks (5%); In both cases these rates were higher than the statewide rates. Lynn had the highest rate of uninsured among the priority communities at 5%, which was substantially higher than the state rate of 2.7% and the Essex County rate of 3%. Within Lynn, 7% of Hispanic/Latino residents, 5.1% of Black residents, and 4.7% of Asian residents were uninsured compared to 3.7% of White residents.

Table 26. Racial Composition of Population without Insurance by State, County, and City/Town 2015-2019

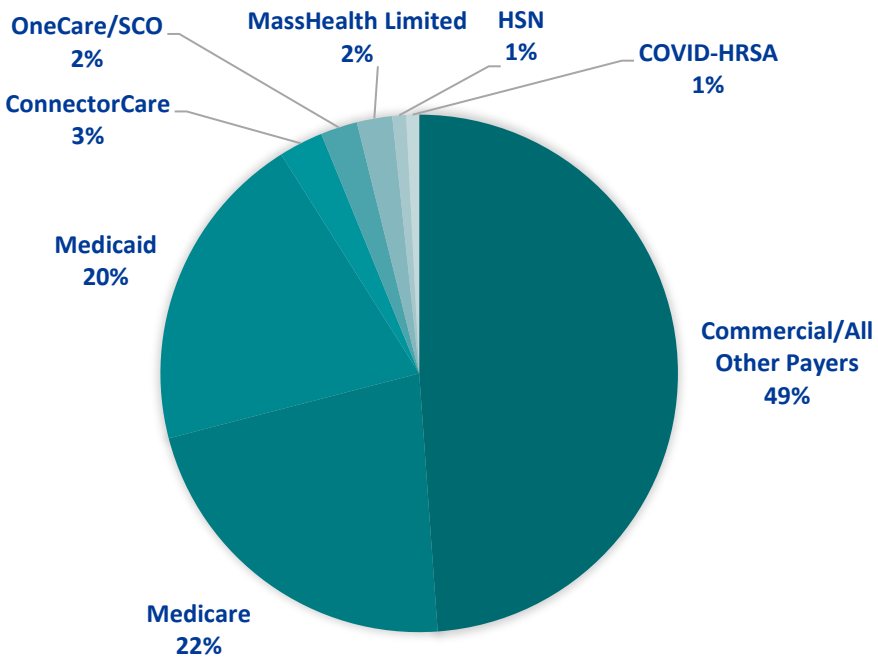
Geography	White alone	Black alone	Asian alone	Hispanic/Latino, any race	Total population
Massachusetts	2.3%	4.4%	3.1%	5.3%	2.7%
Essex County	2.4%	5.0%	3.1%	6.1%	3.0%
Danvers	1.7%	0.0%	0.0%	0.0%	1.6%
Lynn	3.7%	5.1%	4.7%	7.0%	5.0%
Lynnfield	1.2%	13.3%	0.0%	9.6%	1.3%
Marblehead	1.8%	0.0%	3.1%	0.0%	1.8%
Nahant	1.1%	No Data	0.0%	0.0%	1.0%
Peabody	1.9%	8.9%	5.8%	5.1%	2.6%
Salem	1.9%	1.7%	5.4%	4.1%	2.3%
Swampscott	0.4%	0.0%	0.0%	0.0%	0.3%

DATA SOURCE: US Dept of Commerce, Bureau of the Census, 5 year estimate American Community Survey, 2015-2019

MGB Salem Patients and Insurance

In 2020, roughly half of Salem Hospital patients had commercial payers (See Figure 44). Medicare and Medicaid comprised 22% and 20%, respectively, of the hospital's payer mix. The remaining payers included ConnectorCare (3%), OneCare (2%), MassHealth Limited (2%), Health Safety Net (1%), and coverage provided by HRSA for COVID-related care (1%).

Figure 44. Source of Insurance among All Salem Hospital Patients 2020



DATA SOURCE: MGB Internal Enterprise Data Warehouse

Community Resources and Assets

When asked to identify community resources and assets, focus group participants consistently described two key themes:

(1) Diversity, resiliency, and a strong sense of community:

The hospital's priority communities, particularly Lynn and Salem, were described as rich in diversity with people of different racial, ethnic, and cultural backgrounds. Despite the difficult circumstances many community members endure -- such as housing instability or homelessness, hunger and poor nutrition, unemployment, violence, trauma, racism, behavioral health issues, lack of access to services, or poor health – community residents were described as resilient, resourceful, and hard working. Immigrants represent a large proportion of residents, particularly in Lynn, and were identified by several focus group participants as resilient, having left behind their homelands to emigrate to the U.S. Many have survived violence and made significant adjustments in order to build a new life in America. Although social isolation exists, and was exacerbated by the pandemic, focus group participants described social cohesion and a sense of belonging as important attributes of the community.

Focus Group Feedback - 25

"It [the community] is remarkably diverse and vibrant. It's always changing. It's a challenge to work here but always interesting and exciting."

"Diversity makes Lynn thrive."

"There's a strong sense of community. People know one another and look out for one another."

(2) The number of organizations serving the community and collaboration among them:

Although focus group participants acknowledged the need for more providers and services, particularly related to behavioral health, they generally believe that the communities in the hospital's service area are rich with public sector and non-profit organizations that serve the community and address a vast array of needs. They reported that staff within these organizations know the community and the populations they serve well. The focus group participants described service providers as caring and committed and the level of collaboration among them a major asset to the community. A couple of participants pointed to the monthly system of care meetings, where resources are shared to support coordination of services for families, as an example of the willingness that exists among organizations to collaborate, share resources, and support one another. Because they work effectively together, focus group participants argued, they are able to better serve the community.

Focus Group Feedback - 26

"There are over 100 non-profits and 300 programs in the community and close connections among them."

"The level of commitment and care among organization serving vulnerable populations in Lynn – We all really care and are willing to collaborate."

"There are lots of organizations that work with vulnerable population and amazing collaboration. [During the pandemic], we really came together. I would love to solidify our collaboration even more!"

"We have strong partnerships with community-based organizations and the Department of Public Health, which lets us offer [the community] services outside our walls."

Key Themes and Conclusions

The 2021 Salem Hospital CHNA involved a review of secondary demographic, economic, public health, and health care data, as well as focus groups with 50 community leaders from 43 organizations and representing multiple service sectors in the community. The assessment describes the social and economic context in the priority communities and health outcomes and behaviors that affect community well-being. Several key themes emerged from the analysis regarding the most significant barriers to health in the target communities.

Community Assets and Resources:

Focus group participants identified the diversity and resiliency of the community, as well as the number of organizations serving the priority communities and collaboration among those organizations as important community assets and resources.

Diversity and Disparities in Lynn:

Of the eight communities in the hospital service area, Lynn is the most populous, has the largest proportion of residents under 65, is the most racially/ethnically diverse, and is home to the largest proportion of immigrants and non-English speakers. Lynn's median household income is the lowest in the service area. Lynn has higher unemployment and a larger proportion of residents living in poverty. The community has the lowest rates of public high school graduation within four years and highest public school dropout rates. Lynn has a larger proportion of adults 25 and up with less than a high school degree or equivalency. A larger proportion of Lynn residents rent than in the other target communities. A larger proportion of Lynn's homeowners pay 35% or more of their income to pay for housing costs. Lynn's median home values are the lowest in the service area. Lynn also has the highest proportion of households with cell phones but no other computer. Lynn's rates of violent and property crimes are the highest in the region. The community has the largest proportion of SNAP beneficiaries and the highest rates of adult obesity, diagnosed diabetes, and smoking. Lynn also has the highest rates of ED utilization for asthma, and rates pf gonorrhea and chlamydia. Lynn also had the largest number of COVID-19 infection and the highest case rate in the area.

Social Determinants of Health:

The lack of safe and affordable housing, food insecurity and poor nutrition, transportation challenges, lack of access to broadband and adequate cell service, and lack of affordable and quality childcare were identified as the social determinants that have the greatest impact on the health and wellness of community members.

Housing: With regard to housing, participants noted that, as the North Shore becomes increasingly gentrified, problems with access to safe and affordable housing increase. These problems affect the entire housing continuum, from emergency/temporary to longer-term/stabilization to permanent housing, including permanent supportive housing. Limited shelter space in general and especially for unaccompanied youth (under 18), and too few affordable housing options for everyone and especially for seniors lead to housing-related problems such as over-crowding, unhealthy and unsafe conditions, instability and frequent relocation, and homelessness. These challenges exacerbate other social determinants, disrupt care, and contribute to the spread of COVID. Collaborative problem-solving between hospital and community partners as early as possible before discharge will help to secure housing options that best support patient safety after discharge, particularly for patients with mental and physical health issues for whom housing options are extremely limited.

Food/nutrition: Although several food assistance programs exist in the communities to address food insecurity, residents still have problems accessing nutritious and affordable food. Limited program hours and transportation challenges affect access. Stigma, lack of understanding about the importance of nutrition to health, and lack of culturally relevant foods may affect use of such programs. Due to housing conditions/status, many people have limited or no storage or cooking facilities.

Poor oral health and limitations due to access, cost, cooking, storage, and understanding about nutrition contribute to unhealthy eating.

Transportation: Lack of transportation to/from medical appointments and other services is a major barrier to preventive services, continuity of care, and appropriate use of emergency and ambulance services. Far too few transportation options exist, particularly those with chair cars to transport seniors to/from health care and other services. Transportation challenges limit access to food programs and healthy foods and detox and other behavioral health services outside of the immediate service area. Transportation issues prevent residents from getting to interviews and appointments which hinders employment, housing, and other services. Transportation issues also limit youth access to school and youth programs.

Broadband and Cell Service: The need for remote (i.e., phone, internet) access has increased in general and especially during the pandemic, but access to such services is inequitable. Unlimited cell plans and internet service are expensive. While broadband and cell plan resources increased during the pandemic, they are now being reduced. People often use all of their minutes on hold with housing and other agencies and they have too few minutes for telehealth appointments.

Childcare: There are too few childcare slots available in the community and the lack of affordable and quality childcare prevents many residents from being able to work, especially lower paid health and social service workers. During the pandemic, many youth missed school to care for younger siblings so that their parents could work.

Identified Health Issues:

Behavioral health, oral health, and COVID-19 were identified as the three health issues having a particularly detrimental impact on the priority communities.

Behavioral health:

Existing behavioral health problems were intensified during the pandemic; isolation, depression, anxiety, and substance use are believed to be on the rise. There are long waiting lists and too few behavioral health providers, especially those who speak languages other than English, who accept Medicaid, and for pediatric patients. There aren't enough detox beds available statewide, but especially on North Shore, and too few options for the uninsured and those with MassHealth. Too few post-detox services exist as well. When detox and other behavioral health services are available outside of the immediate area, transportation becomes a barrier to access. When medication assisted treatment (MAT) is provided in Emergency Room, it is sometimes difficult to schedule follow-up appointments with primary care providers so patients can continue with MAT. The window of opportunity for getting people into detox, treatment, and on MAT is narrow and the aforementioned barriers often mean the window is missed. Additionally, patients are sometimes discharged from hospitals without medications for mental health issues or SUDs, which increases the likelihood patients will go without medications and conditions will be exacerbated.

Oral health:

Oral health services are expensive, particularly for restorative care. Too few dentists are available in the service area and fewer still accept Medicaid. Poor oral health has a significant impact on the ability to consume nutritious foods and affect health more broadly.

COVID-19:

COVID-related unemployment and social distancing exacerbated economic disparities, isolation, and behavioral health issues for many residents, especially immigrants, seniors, and those with existing behavioral health issues. Misinformation about vaccines exists, particularly in non-English speaking communities and lack of trust, housing instability, and transportation also contribute to low testing and vaccination rates. The focus on the pandemic may be taking attention away from other health concerns that impact mortality and morbidity, including sexually transmitted diseases and HIV.

Barriers to care and service delivery and coordination:

Several systemic barriers exist and affect access to care and effective service delivery and coordination. With the closure of Union Hospital, utilization of the Salem Hospital emergency department increased. The ED is also used for non-urgent issues because primary care appointments are so hard to get. Such demand on the ED resulted in long wait times. Hospital staff experience difficulty reaching providers in the community and encounter barriers referring patients due to different EMR systems. There are significant barriers that limit timely screening, referrals and consultations at the hospital to problem-solve effectively with community providers prior to discharge. North Shore Community Health center patients don't have access prenatal services on site at the health center and, when referred to the hospital, experience delays and difficulty navigating the system. Staffing shortages exist in health care and behavioral health at all levels and service providers are exhausted and burned out from managing their roles and increased demands resulting from pandemic.

Needs of Vulnerable populations:

Seniors:

Behavioral health and the social determinants of health pose particular threats to seniors in the target communities. Seniors are increasingly isolated and experiencing increased behavioral health issues as a result. Too few providers are comfortable and equipped to address the specific care needs of geriatric patients, which may mean end-of-life decisions are not discussed and patients are denied choice about their health care. The combination of mental health and dementia (and sometimes SUDs too) among seniors is not well-understood or appropriately treated in health care generally; to ensure the safety of such patients, collaborative planning between hospital and community partners is essential. When seniors are admitted to long-term care without ensuring they and their families understand their conditions and prognosis, it puts the facilities and community providers in a difficult position. Home-health shortages, especially caregivers who speak languages other than English, cause long delays and inconsistent care and endanger homebound seniors. Far too little transportation, particularly chair cars, exist to transport seniors to/from health care and other services. Too few affordable housing units exist for seniors and many live in unmaintained housing, and unsanitary and unsafe conditions, including infestations. Seniors often go without resources that would keep them safe and out of the hospital (i.e., air conditioning, grab bars, chair lifts, hospital beds) because insurance won't pay for them. Healthy, easy to prepare and easy to eat foods are not always available, which affects blood pressure, blood sugar, and the overall health of seniors.

Youth:

Behavioral health and the social determinants of health also pose particular challenges to the health and wellness of young people in the priority communities. Too few behavioral health resources existing for youth before the pandemic. During the pandemic, social isolation, anxiety and depression, and SUDs increased among youth. Education was disrupted for many youth who got jobs to contribute to household incomes and/or cared for younger siblings so their parents could work. Shelter space for unaccompanied youth (under 18) is extremely limited. Transportation issues limit youth access to school and youth programs. Unaccompanied youth and LGBTQ youth are hard to identify (unless they self-identify) and engage in services. Many youth services providers don't feel adequately prepared to talk to youth about mental health concerns, assess risk, and make referrals.

Immigrants/residents with limited English proficiency and/or health literacy:

Medical misinformation is pervasive in immigrant communities, especially among those who don't speak English and particularly related to COVID-19 vaccines. Newer immigrants often lack experience with, trust in, and understanding of health care, including why it's important and how to access it. Lack of understanding about the health system leads to increased ED use for non-urgent issues. The ability to navigate and utilize health system among those with limited English is hindered by language. Many immigrants without residency-status fear being turned in to immigration services by health care and other service providers. Immigrants often live in over-crowded housing and have less access to services due to language barriers, lack of insurance, and fear and mistrust.

Priority Health Needs of the Community

The CAHAC members met to discuss the CHNA results and identify the priorities and cross-cutting vulnerable populations that will be the focus of Salem Hospital's 2022 one-year CHIP planning process. When mapping the needs identified in the 2021 CHNA against the priorities in the hospital's last CHIP, the CAHAC identified that significant needs still exist related to several of priorities addressed in the 2019-2021 CHIP. The CAHAC decided to retain the existing priorities from the 2019-2021 CHIP and add a new priority area to address the social determinants of health (See Table 27).

The group further decided to add oral health services to the health care access priority given the paucity of oral health services in the hospital service area, particularly dental practices that accept Medicaid, and the impact of oral health issues on healthy eating and overall health. They noted that oral health is consistently identified as an important need in community health needs assessments and felt it should be included among the issues discussed in the next CHIP planning process.

The CAHAC members decided that violence, including domestic violence, and abuse and neglect of children and elders, should be included as an issue related to the behavioral health priority because rates of violence escalated during the pandemic, and because violence is so frequently associated with trauma and other behavioral health conditions. They added that trauma associated with violence may also limit utilization of health care and home health services because victims cannot tolerate close contact with providers.

The CAHAC members agreed that the social determinants of health most frequently discussed by the CHNA's focus group participants (i.e., housing, food/nutrition, transportation, broadband and cell service, and childcare) should be included as issues associated with the social determinants of health priority. However, they felt that education should be added to the issues included in the priority area because learning loss among youth during the pandemic has been pervasive and has caused anxiety, depression, and an increased demand for behavioral health services for youth. Additionally, the group reported that immigrant youth, many of whom are relatively new to the priority communities, are slow to enroll in school and have higher drop-out rates than other youth, which will likely put them on a path for a lifetime of problems associated with health, behavioral health, and/or the social determinants of health.

Table 27. Priorities and related issues selected for the 2022 Salem Hospital CHIP

Priority	Existing issues (i.e., from 2019-2021 CHIP) related to the priority	New issues (i.e., to be included in the 2021 CHIP planning process) related to the priority
Behavioral Health (Existing)	Mental health, substance use disorders, gaps in treatment, stigma	Violence (domestic violence, child abuse/neglect, elder abuse/neglect)
Health Care Access (Existing)	Accessibility, health insurance and cost, care coordination and navigation	Oral health services
Health Care Environment and Trust (Existing)	Culturally sensitive care delivery and services in multiple languages	
Social Determinants of Health (New)		Housing, food/nutrition, transportation, broadband and cell service, childcare, and education

Lastly, the CAHAC determined that the cross-cutting vulnerable populations identified in the 2021 CHNA (i.e., elders, youth, and immigrants and those with limited proficiency in English and health literacy) should be the populations included in the upcoming CHIP planning process.

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[i] https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1 accessed on October 5, 2021
[ii] https://www.countyhealthrankings.org/explore-health-rankings/measures-data-sources/2021-measures accessed on October 5, 2021